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實驗班(A)：國際課程實驗班：114年05月14日北市教中字第1143061020號函備查

# 高級中等學校課程計畫

私立靜心高中

學校代碼：381306

普通型課程計畫書

本校113年11月14日113學年度第1次課程發展委員會會議通過

(114學年度入學學生適用)

中華民國114年05月16日

學校基本資料表

|           |            |          |    |                |
|-----------|------------|----------|----|----------------|
| 學校校名      | 私立靜心高中     |          |    |                |
| 普通型       | 普通班        |          |    |                |
| 技術型       | 專業群科       |          |    |                |
|           | 建教合作班      |          |    |                |
|           | 重點產業專班     | 產學攜手合作專班 |    |                |
|           |            | 產學訓專班    |    |                |
|           |            | 就業導向課程專班 |    |                |
|           |            | 雙軌訓練旗艦計畫 |    |                |
|           |            | 其他       |    |                |
| 綜合型       |            |          |    |                |
| 單科型       |            |          |    |                |
| 進修部       |            |          |    |                |
| 實用技能學程    |            |          |    |                |
| 特殊教育及特殊類型 |            |          |    |                |
| 實驗班       | 1. 國際課程實驗班 |          |    |                |
| 聯絡人       | 處室         | 教務處      | 電話 | 0229323118*211 |
|           | 職稱         | 教學組長     |    |                |

備註：不適用型別(普通型、技術型…)可整列刪除。

壹、依據

- 一、102年7月10日總統發布之「高級中等教育法」第43條中央主管機關應訂定高級中等學校課程綱要及其實施之有關規定，作為學校規劃及實施課程之依據；學校規劃課程並得結合社會資源充實教學活動。
- 二、110年3月15日教育部修正發布之「十二年國民基本教育課程綱要」。
- 三、110年6月11日教育部修正發布之高級中等學校課程規劃及實施要點。

貳、學校現況

一、班級數、學生數一覽表

| 等級名稱 | 群別名稱 | 科系名稱 | 第一學年 |     | 第二學年 |    | 第三學年 |    | 小計  |     |
|------|------|------|------|-----|------|----|------|----|-----|-----|
|      |      |      | 班級數  | 人數  | 班級數  | 人數 | 班級數  | 人數 | 班級數 | 人數  |
| 普通型  | 學術群  | 普通科  | 4    | 105 | 3    | 91 | 3    | 81 | 10  | 277 |
| 合計   |      |      | 4    | 105 | 3    | 91 | 3    | 81 | 10  | 277 |

二、核定科班一覽表

| 學校類型 | 群別  | 科班別 | 班級數 | 每班人數 |
|------|-----|-----|-----|------|
| 普通型  | 學術群 | 普通科 | 4   | 26   |
| 合計   |     |     | 4   | 104  |

三、體育班核定運動種類一覽表

## 參、學校願景與學生圖像

### 一、學校願景

#### ※學習型的學校、會思考的學生

重視學校本位發展，結合教師、家長、社區力量，經營並塑建發展多元智慧、尊重個別差異、促進適性發展的優質學習環境；並提供學生更紮實的知識基礎、更有利的潛能開發、更好的行為改變及更多自我實現的機會；以引導學生尊重自然與人性的尊嚴，追求人間的和諧關係，慎用科學與人文的專業知識，俾利培育出人文與科學、知識與能力、個性與群性均衡發展，有教養、會思考、展現多元、具備國際視野，求真、求善、求美、求仁的下一代。

### 學習型的學校 會思考的學生

求真、求善、求美、求仁

求真--會思考、追求真理、堅實的知識基礎。

求善--有教養、品格、倫理。

求美--美感教育，內心世界。

求仁--人文關懷，服務他人。





## 二、學生圖像

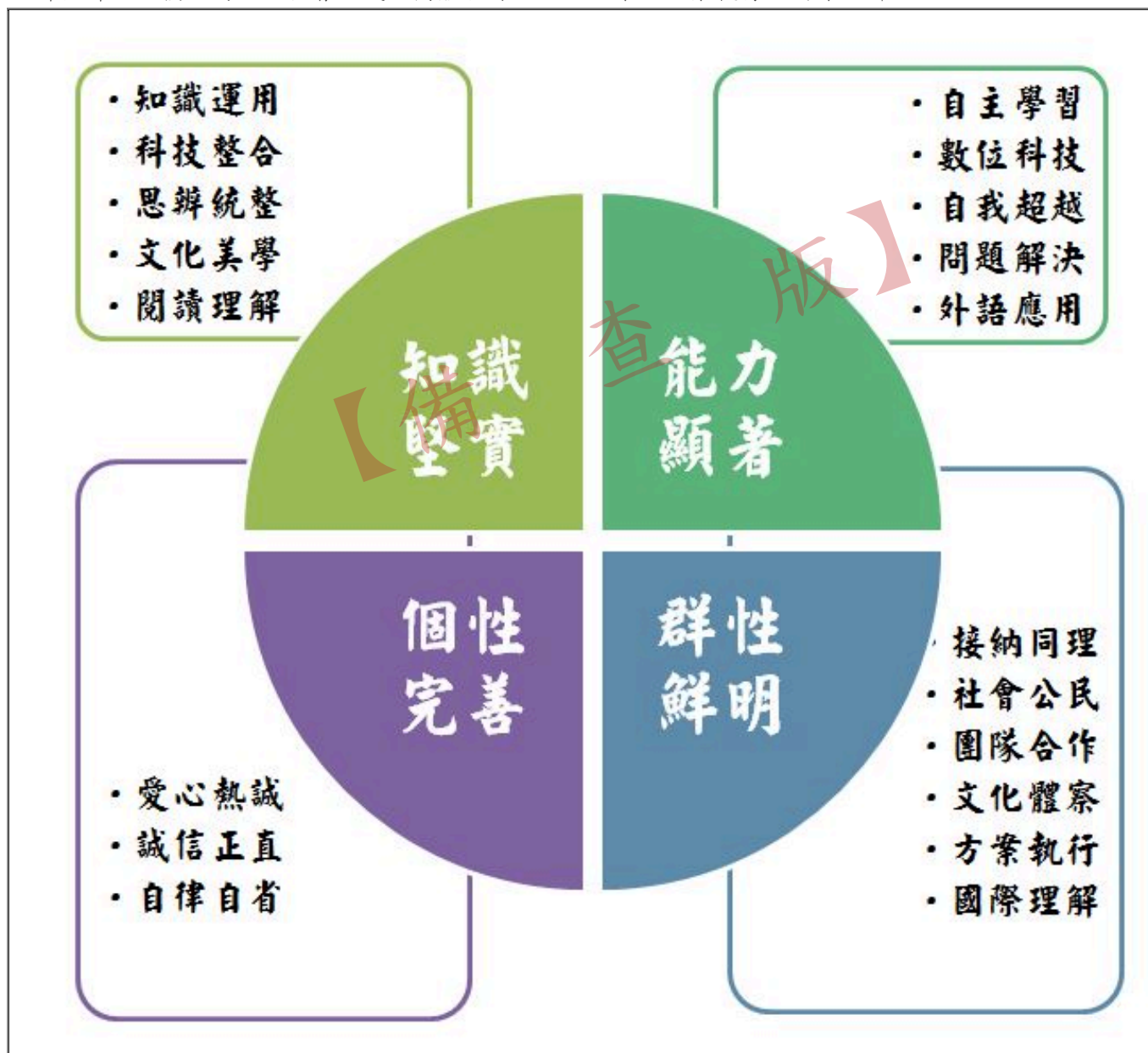
本校以「知識堅實、能力顯著、個性完善、群性鮮明-謙謙君子 大家閨秀」為學生圖像，以涵養品格與厚實學科能力基礎，實施各類適性多元課程與活動，精進學生專長與跨域實作能力，期使學生成為具備-菁英素養、創新探究、多元展能、愛群利他、國際視野的人才，並經校訓「誠、愛、熱、智」薰陶，具備誠心、愛心、熱心，以智慧通達事理，造福群己，成為正大光明的人群菁英與良好公民。

※1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。

※2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。

※3. 個性完善：愛心熱誠、誠信正直、自律自省。

※4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。



臺北市私立靜心高中學生圖像及分項素養指標

| 校本<br>關鍵<br>素養 | 素養內涵     | 分項素養指標 |                                              |
|----------------|----------|--------|----------------------------------------------|
| 1<br>知識<br>堅實  | 1-1 知識運用 | 1-1-1  | 能由圖表、報告中解讀資料，判讀資料的意涵及因果邏輯關係，據以澄清或解答問題。       |
|                |          | 1-1-2  | 能辨識知識來源的可靠性及價值性，並尊重著作財產權，適切運用各類知識。           |
|                |          | 1-1-3  | 能針對所遇探究的問題，比較分析綜合歸納各類知識，擷取整合重組成為有意義的解決方案或報告。 |
|                | 1-2 科技整合 | 1-2-1  | 能有效運用資訊與個人知識，規劃具體可行方案                        |
|                |          | 1-2-2  | 能整合資源與自我要求，切實執行團隊方案                          |
|                |          | 1-2-3  | 具備宏觀視野，檢討省思方案效益                              |
|                | 1-3 思辨統整 | 1-3-1  | 能以問題解決方式，建立自己的思辨能力。                          |
|                |          | 1-3-2  | 具批判性思考，學會跨領域統整不同知識的能力                        |
|                |          | 1-3-3  | 能進一步激發社會關懷動機，產生實踐的動能                         |
|                | 1-4 文化美學 | 1-4-1  | 能經營布置美的環境                                    |
|                |          | 1-4-2  | 能觀察、分析、比較、判斷各項美的因素                           |
|                |          | 1-4-3  | 能尊重包容各文化中對美的不同觀點                             |
|                | 1-5 閱讀理解 | 1-5-1  | 能對閱讀的文章做文學性的探討及生活教育的延伸。                      |
|                |          | 1-5-2  | 具一般語文理解與運用能力外，能夠反思閱讀內容、建構意義、和對閱讀內容或形式進行批判。   |
|                |          | 1-5-3  | 能理解、運用、省思及投入文本，以達成個人目標，發展個人知識和潛能，並有效參與社會。    |

| 校本<br>關鍵<br>素養 | 素養內涵     | 分項素養指標 |                                                |
|----------------|----------|--------|------------------------------------------------|
| 2<br>能力<br>顯著  | 2-1 自主學習 | 2-1-1  | 具主動學習意願，自行決定研究問題，或提出解決及探索現況或問題。                |
|                |          | 2-2-2  | 具主動學習態度，自我監督與自我學習，不輕言放棄，以及和他人合作學習的態度。          |
|                |          | 2-2-3  | 具有效的主動學習方法與能力，擬定學習計畫，適切分配學習時間與學習內容，提昇學習效能。     |
|                | 2-2 數位科技 | 2-2-1  | 能適切並有效地運用數位科技於學習、工作與生活的能力與態度                   |
|                |          | 2-2-2  | 具數位科技技能、應用及運算思維、知識整合運用等能力                      |
|                |          | 2-2-3  | 能有效運用數位科技於學習，並使其成為積極自主學習、樂於實作、勇於創新求變、終身學習的數位公民 |
|                | 2-3 自我超越 | 2-3-1  | 具探索事務的興趣與熱忱，並養成主動學習的習慣。                        |
|                |          | 2-3-2  | 具主動學習、研究精神和批判性思維能力。                            |
|                |          | 2-3-3  | 能運用嚴謹分析、推理與歸納等科學方法，探究問題，以發現新的事實、理論或法則。         |
|                | 2-4 問題解決 | 2-4-1  | 能有效解決生活中的問題，或尋求諮詢以排除所遇之困難。                     |
|                |          | 2-4-2  | 具有主動思考問題解決策略的習慣，透過除錯使問題得以解決。                   |
|                |          | 2-4-3  | 能拆解問題，蒐集、重組運用可用資訊，使問題逐一被解決。                    |
|                | 2-5 外語應用 | 2-5-1  | 能以流暢適切的英語能力達成生活與學業中的交流與溝通。                     |
|                |          | 2-5-2  | 能分析訊息、整合資訊、合理規劃並發揮創意以完成任務。                     |
|                |          | 2-5-3  | 能以清楚的邏輯與思維，表達複雜的概念或見解。                         |



| 校本<br>關鍵<br>素養 | 素養內涵     | 分項素養指標 |                                    |
|----------------|----------|--------|------------------------------------|
| 3.<br>個性<br>完善 | 3-1 愛心熱誠 | 3-1-1  | 能用心追求人生崇高目的的領導者，具勤奮又有能力表現者。        |
|                |          | 3-1-2  | 能訂定明確的人生目標，具國際觀及多元智慧。              |
|                |          | 3-1-3  | 能擁有堅強的成功信念，懂得自我管理，推己及人，願意對人類做出貢獻。  |
|                | 3-2 誠信正直 | 3-2-1  | 能不輕易承諾，一旦做出承諾，必定不計代價，全力以赴。         |
|                |          | 3-2-2  | 能出於公心而敢於說真話和做得罪人的事，具備尊重且負責任的道德實踐者。 |
|                | 3-3 自律自省 | 3-3-1  | 能自律且追求健全生活方式，具備處事圓融且情緒管理能力者。       |
|                |          | 3-3-2  | 能成為終身學習並具備批判思考者。                   |

| 校本<br>關鍵<br>素養 | 素養內涵     | 分項素養指標 |                                              |
|----------------|----------|--------|----------------------------------------------|
| 4.<br>群性<br>鮮明 | 4-1 接納同理 | 4-1-1  | 了解自己的潛能與感受，心想並接納自己，探索與發展自我價值。                |
|                |          | 4-1-2  | 探索並肯定自我價值。                                   |
|                |          | 4-1-3  | 發展優勢能力，實踐自我。                                 |
|                |          | 4-1-4  | 展現自己的興趣與多元能力，接納自我，以促進個人成長。                   |
|                | 4-2 社會公民 | 4-2-1  | 具備公民意識與社會責任。                                 |
|                |          | 4-2-2  | 主動參與環境保育與社會公共事務。                             |
|                |          | 4-2-3  | 具備國際化視野，尊重多元文化，主動關心全球重大議題。                   |
|                |          | 4-2-4  | 落實社會服務的關懷行動，深化服務情懷。                          |
|                | 4-3 團隊合作 | 4-3-1  | 能遵守團隊規範，為爭取團隊榮譽而努力。                          |
|                |          | 4-3-2  | 能接納並尊重小組成員不同意見，必要時積極溝通與人合作，共同完成小組任務。         |
|                |          | 4-3-4  | 能針對問題，適時協助小組成員，不計較付出多寡，而以完成小組任務為先。           |
|                | 4-4 文化體察 | 4-4-1  | 能從多元文化觀點，瞭解並尊重不同的習俗與文化。                      |
|                |          | 4-4-2  | 能了解並應用國際社會之基本生活禮儀。                           |
|                |          | 4-4-3  | 能結合文化知識與語言能力，解決生活中的實際問題。                     |
|                | 4-5 方案執行 | 4-5-1  | 能熟悉規劃、分工、執行、檢討、修正、實施..等計畫執行步驟。               |
|                |          | 4-5-2  | 處理任務時，能妥善分工，規畫流程，有步驟的進行操作，並於期限內完成任務，並有具體成果。  |
|                |          | 4-5-3  | 處理任務能運用內外資源，創新思維，以明確策略及分工，掌握時效完成任務，解決生活中的問題。 |
|                | 4-6 國際理解 | 4-6-1  | 具備國際化視野，主動關心全球重大議題。                          |
|                |          | 4-6-2  | 能在國際場域或多元文化互動情境中溝通協調及團隊合作，並發展適切的人際互動關係。      |
|                |          | 4-6-3  | 具備國際公民意識與社會責任並採取行動以實踐之。                      |

## 肆、課程發展組織要點

### 臺北市私立靜心高級中學(高中部)課程發展委員會設置要點

#### 臺北市私立靜心高級中學(高中部)課程發展委員會設置要點

107.1.19 校務會議通過

109.1.17 校務會議修訂通過

- 一、 依據：103 年 11 月 28 日臺教授國部字第 1030135678A 號發布之「十二年國民基本教育課程綱要總綱實施要點」設置課程發展委員會(以下簡稱本會)，並訂定此要點。
- 二、 目標：
  - (一) 規劃、審議本校整體課程的實施模式與可行做法。
  - (二) 規劃、執行本校整體課程評鑑事宜。
  - (三) 結合社區資源，研議本校願景及課程發展特色。
  - (四) 建立教師發展、設計教學新課程的知能，增進教師專業自主能力。
- 三、 工作職責：
  - (一) 依照高級中學課程綱要總綱，並充分考量學校主客觀環境與條件、學生需求、家長期望等相關因素，結合全體教師和社會資源，規劃並執行學校總體課程發展策略。
  - (二) 審查各學科課程計畫及執行成果。
  - (三) 研訂各學科之課程計畫，發展學校課程總體計畫。
  - (四) 議決各科之教學時數。
  - (五) 議決應開設之選修課程。
  - (六) 議決各科課程改革提案。
  - (七) 審查本校重要活動、學年活動及班級活動。
  - (八) 審查教科書及教師自編教材。
  - (九) 執行、規劃課程評鑑事宜。
  - (十) 其他有關課程規劃與發展事宜。
- 四、 組織成員與架構：
  - (一)本會會議由校長任主任委員兼召集人，教務主任為執行秘書，委員共 21 人，均為無給職，任期 1 學年(自當年 8 月 1 日至次年 7 月 31 日止)，連選得連任，因職務為當然委員者隨職務之調動而更換之，補任委員任期至原任期期滿為止。成員組成方式如下：
    1. 學校行政代表：學務主任、輔導中心主任、國際中心主任、秘書、教學組長、圖資組長為當然委員，共 6 人。
    2. 特教老師：1 人。
    3. 家長代表：由家長會推派代表 1 人。
    4. 學科代表：國文與英文學科召集人及其他七大各領域召集人，包括：數學、自然、社會、藝術、健體、綜合、科技共 9 人。
    5. 專家學者代表：1 人由校長聘請之。
    6. 學生代表 1 人。
    7. 委員兼具多重身分者，僅能擇一種身分參加。
  - (二)本會組織架構：教務處主辦本會工作，相關處室協辦，並就任務需要進行分工，分工任務表如下：

| 組別           | 召集人        | 成員                       | 任 務 內 容                                                                                                                                                                                                                                                                                                                      |
|--------------|------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 主任委員         | 校長         | 秘書                       | 1.召集委員會議。<br>2.督導課程之實施。                                                                                                                                                                                                                                                                                                      |
| 執行秘書         | 教務主任       | 教學組長                     | 1.籌畫課程發展之各項工作。<br>2.統整學校課程總體計畫。<br>3.各項工作之聯繫與執行。<br>4.各項成果之彙整與編印。                                                                                                                                                                                                                                                            |
| 課程研發組        | 教務主任       | 教學組長<br>國際中心主任<br>各領域召集人 | 1.各學習領域之課程計劃與研發。<br>2.各特色課程之課程計劃與研發。<br>3.19項議題融入課程規劃與研發。<br>4.自主學習課程規劃執行與督導。<br>5.各項課程評鑑之執行與後續追蹤。                                                                                                                                                                                                                           |
| 學生活動組        | 學務主任       | 訓育衛生組長<br>體育生輔組長         | 1.社團活動的規劃與執行。<br>2.規劃生活作息時間表。<br>3.協助自主學習課程規劃執行。                                                                                                                                                                                                                                                                             |
| 科技媒材組        | 圖資組長       | 設備組長<br>系統師              | 1.圖書、視聽媒體之整合運用。<br>2.網路系統、隨選視訊之整合運用。<br>3.協助自主學習課程規劃執行。                                                                                                                                                                                                                                                                      |
| 文宣推廣組        | 輔導中心<br>主任 | 家長會                      | 1.向社區、家長宣導本校課程之實施(平面文宣、活動宣導)。<br>2.成立社區資源小組。<br>3.社區資源之建立、整合、運用。<br>4.協助自主學習課程規劃執行。<br>5.規劃與推動學生生涯輔導及選課輔導工作。                                                                                                                                                                                                                 |
| 學習領域<br>課程小組 | 各領域召<br>集人 | 各學習領域<br>教師              | 1.擬定各學習領域課程學期(學年)的實施計畫。<br>2.與其他學習領域共同研發學校本位課程-校訂必修及多元選修課程，發展主題教學課程，或各學習領域統整課程。<br>3.辦理學習領域工作坊，培訓種子教師，並輔導其他教師，以利進行教學。<br>4.規劃各年級19大議題融入教案與實施教學。<br>5.規劃實施各年級各學習領域相關延伸學習活動。<br>6.規劃研發、實施各學習領域國、高中銜接課程。<br>7.規劃研發、實施各學習領域高中升大學銜接課程。<br>8.選購或自編學習領域所需的教材。<br>9.研發適合學習領域的創新教學模式。<br>10.規劃實施學習領域的多元評量。<br>11.協助學生自主學習計畫擬定執行輔導與回饋。 |

五、 本會會議之召開：

- (一) 定期會議：每學期 2 次為原則。
- (二) 不定期會議：視需要召開。

六、 本會會議之決議：

- (一) 本會開會時須有應出席委員二分之一(含)以上之出席，方得開議。若需表決時，須有出席委員三分之二(含)以上同意，方得議決，投票採不記名投票或舉手方式行之。
- (二) 學校課程計畫審議應由課程發展委員會三分之二以上委員出席，二分之一以上出席委員通過，始得陳報各該主管機關。

七、 經課程發展委員會通過之議案，由校長交由有關單位執行。

八、 本要點經校務會議通過後實行，修正時亦同。



臺北市私立靜心高中 114 學年度課發會委員名單

| 序號 | 職稱           | 姓名  | 備註           |
|----|--------------|-----|--------------|
| 1  | 校長           | 唐尚智 |              |
| 2  | 教務主任         | 林逸萍 |              |
| 3  | 學務主任         | 蘇峰立 |              |
| 4  | 輔導中心主任       | 曹奕翔 |              |
| 5  | 國際中心主任       | 王舒葳 |              |
| 6  | 秘書           | 詹斐懿 |              |
| 7  | 教學組長         | 丁璟汶 |              |
| 8  | 圖資組長兼科技領域召集人 | 牛彥如 |              |
| 9  | 高中國文領域召集人    | 王吳瑄 |              |
| 10 | 高中英文領域召集人    | 蔡舒明 |              |
| 11 | 高中數學領域召集人    | 呂正基 |              |
| 12 | 高中社會領域召集人    | 謝佩妤 |              |
| 13 | 高中自然領域召集人    | 葛文昕 |              |
| 14 | 高中健體領域召集人    | 陳琄宣 |              |
| 15 | 高中藝術領域召集人    | 張夢澤 |              |
| 16 | 高中綜合領域召集人    | 趙詠純 |              |
| 17 | 特教教師         | 劉品君 |              |
| 18 | 家長代表         | 歐寶惠 |              |
| 19 | 專家學者         | 席行正 | 臺灣大學環境工程學研究所 |
| 20 | 學生代表         | 陳宥晴 |              |

[381306 私立靜心高中課程地圖\(PDF格式\)](#)

| 114-116 學年度 靜心高中課程地圖 |  |                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 知識堅實                 |  | 部定必修 120                                              |  | 高一上 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| 高三下 6                                                 | 通識學子                                                                                  |                                            |
| 核心基礎學程               |  | 國文 4<br>英文 4<br>數學 4<br>歷史 4<br>地理 2<br>公民 2<br>本土語 1 |  | 國文 4<br>英文 4<br>數學 4<br>歷史 1<br>地理 1<br>公民 2<br>本土語 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| 國文 4<br>英文 4<br>數學 4<br>歷史 1<br>地理 1<br>公民 2<br>本土語 1 | 健康 1<br>國防 1<br>體育 2<br>藝術生活 2                                                        |                                            |
|                      |  | 國文 4<br>英文 4<br>數學 4<br>歷史 1<br>地理 1<br>公民 2<br>本土語 1 |  | 國文 4<br>英文 4<br>數學 4<br>歷史 1<br>地理 1<br>公民 2<br>本土語 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| 國文 4<br>英文 4<br>數學 4<br>歷史 1<br>地理 1<br>公民 2<br>本土語 1 | 健康 1<br>國防 1<br>體育 2<br>藝術生活 2                                                        |                                            |
| 校訂必修 6               |  | 探索體驗課程                                                |  | 探索體驗-<br>想望海洋 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 探索體驗-<br>山的禮物 1                                       | 領袖人才                                                                                  |                                            |
|                      |  |                                                       |  | 加深加廣                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                      |  |                                                       |  | 思考：智慧的航軌 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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|                                                       | 民主政治與法律 3<br>族群、性別與國家的歷史 3<br>空間資訊科技 3<br>創新生活與家庭 1<br>運動與健康 1<br>安全教育與傷害防護 1         |                                            |
|                      |  |                                                       |  | 多元選修                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                       | 社會環境議題 3<br>現代社會與經濟 3<br>科技、環境與國家的歷史 3<br>創新生活與家庭 1<br>運動與健康 1<br>安全教育與傷害防護 1         |                                            |
|                      |  |                                                       |  | 法語一 2<br>德語一 2<br>西班牙語一 2<br>日語一 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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|                                                       | 《紅樓夢》專題探究(上) 2<br>經濟學(上) 3<br>法語五 2<br>德語五 2<br>西班牙語五 2<br>日語五 2                      |                                            |
|                      |  |                                                       |  | 加深加廣                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                       | 《紅樓夢》專題探究(下) 2<br>哲學思辨 3<br>經濟學(下) 3<br>社會學 3<br>法語六 2<br>德語六 2<br>西班牙語六 2<br>日語六 2   |                                            |
|                      |  |                                                       |  | 國學常識 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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|                                                       | 語文表達與傳佈應用 1<br>專題閱讀與研究 1<br>語文閱讀與寫作 1<br>劇場聽講 1<br>語文作文 1<br>基本設計 1                   |                                            |
|                      |  |                                                       |  | 多元選修                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                      |  |                                                       |  | 加深加廣                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                       | 經典電影賞析與創作(上) 2<br>新聞理論與實務(上) 2                                                        |                                            |
|                      |  |                                                       |  | 俄語入學題 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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|                                                       | 力學二 2<br>物質與能量 2<br>地質與環境 2<br>生命的起源與複雜物體的構造與功能 2                                     |                                            |
|                      |  |                                                       |  | 多元選修                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                       | 力學二 2<br>物質與能量 2<br>地質與環境 2<br>生命的起源與複雜物體的構造與功能 2                                     |                                            |
|                      |  |                                                       |  | 科學論文寫作概論 2<br>生活中的藝術科學 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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|                                                       | 自然科學方法論 2                                                                             | 數學建模(上) 2<br>物理概論 2<br>微積分概論 2<br>化學彩色王國 2 |
|                      |  |                                                       |  | 多元選修                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                       | 數學建模(下) 2<br>化學概論 2<br>半導體原理與製造概論 2                                                   |                                            |
|                      |  |                                                       |  | 彈性代數(上) 2<br>微積分(上) 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 2<br>微積分概論 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## 二、學校特色說明

1. 本校課程分社會人文、數理科技、醫藥生技及國際實驗四組課程，除部定必修之外，校定必修、加深加廣及多元選修、彈性學習及團體活動，整合為「生命探究」、「人文美學」、「數理科技」、「跨域創思」四大學程。
2. 校訂必修「探索體驗」課程，高一以海洋為主軸-「想望海洋及海洋之心」的大海課程；高二高三以海洋為主軸-「無痕山林、大山之歌、走向群山及山的禮物」的大山課程；經由實作(實驗)及探索體驗，培養學生正向思考、勇於承擔、團隊合作、問題解決及自律自省的能力與素養。
3. 生命探究學程：包含「國文、社會、綜合、健體領域」加深加廣及多元選修課程。
  - 〈1〉加深加廣選修：綜合、健體及社會領域加深加廣選修。
  - 〈2〉多元選修〈社會人文、醫藥生技及國際實驗共同開設〉：以「史記專題探究、紅樓夢專題探究」等課程，讓學生能藉由前人經驗智慧，建立自我人格、智慧、才識。
4. 人文美學學程：包含國文、英文、社會及藝術領域加深加廣選修及多元選修課程。
  - 〈1〉國文、英文、社會及藝術領域課程及加深加廣選修。
  - 〈2〉多元選修課程〈社會人文、數理科技、醫藥生技及國際實驗四組共同開設〉：第二外語〈法語、德語、西班牙語、日語〉、創作性舞蹈、經典電影賞析與創作、英文新聞臺、城市歷程的記憶、教室中的元社會、傳播學的想像等課程，培育學生跨領域閱讀、外語學習與寫作，厚植人文涵養及創造表達能力。
  - 〈3〉多元選修〈社會人文組〉：透過「視覺與環境設計」課程完成環境視覺的創意手法和實踐操作技能的學習。
  - 〈4〉本學程希望透過課程設計、教學安排、活動實踐，樹立學生追求真理的崇高理想，培養學生善良仁德的高尚品德，陶冶學生優美從容的高雅情操，以營建靜心學子真善美的正向人生。
5. 數理科技學程：包含數學、自然及科技領域加深加廣選修及多元選修課程。
  - 〈1〉科技領域：透過部定必修-「資訊科技與生活科技課程」，提昇高中學生基本科技能力與素養，加深加廣選修開設高一「機器人專題、工程設計專題」提供學生學習試探，高二及高三開設「進階程式設計及科技應用專題」等多元選修課程提供資訊科技學群學生深化學習，高三社會人文、數理科技及醫藥生技三組都開設「物聯網入門」多元選修，提供學生依適性學群，運用高中所學及知識整合能力進行專題。
  - 〈2〉數學領域：社會人文開設「財經法律與實務」等多元選修課程，提供學生數理化、資訊及財經商管學群未來學習基礎能力。另外，數理科技組及醫藥生技組開設「微積分及線性代數」等多元選修，提供自然學群同學具備紮實數學學術探究基礎數學能力。
  - 〈3〉自然領域：高一開設「科學論文寫作概論」等課程，培養學生撰寫研究計畫及論文研究之能力。高二數理科技組及醫藥生技組都開設「化學彩色王國、化學探秘」等多元選修課程，提供學生通識性課程、實作實驗課程跨領域統整性課程之試探性學習。另外，開設「色彩繽紛的光學、電子學原理與實驗、未來領袖的科學課、物理辯論、電影與文學中的生命科學、半導體原理與製造概論」等多元選修，提供自然學群同學學到大學學術研究所需之具備相關基礎學科知識與能力。
  - 〈4〉數理科技及醫藥生技學程開設大學銜接適性選修課程，以多元的教學活動如跨境課程、專題探究、小組競賽、參觀教學、體驗探究活動、實體操作、專題發表、專家演講等方式，充分發展學生潛能，同時豐富學生數學、自然、科技學習歷程。
6. 跨域創思學程：
  - 〈1〉開設跨領域多元選修課程-「桌遊漫遊與創作、英文新聞編採、生醫工程概論、航太工程概論、財經理論、教室中的元社會」等提供學生整合不同領域的學習，藉以拓展學生視野進而創新思維。
  - 〈2〉多元選修〈社會人文組〉：「走遊世界」課程，深化人文學科素養。
7. 彈性學習時間：高一每週2節，高二每週3節、高三每週2節。共計14節。
  - 〈1〉充實課程「專題小論文」：高一、二開設，每週1節，由學生自主選擇與未來學群相關研究專題，進行小論文的報告撰寫與發表。
  - 〈2〉自主學習：高一、二開設，共9週每週2節，供學生自訂主題及計畫進行學習。培育具備主體學習、深入探究、思考判斷、多元開展的學生。
  - 〈3〉校隊培訓：高一、二開設，共6週每週2節，提供學生持續精進個人專長興趣，並在專長教師指導下，為各項競賽作準備。
  - 〈4〉高一、二藉「學校特色活動」如學習博覽會、境外學習等活動，提供學生多元展示舞臺、多元學習環境與刺激，拓展學生多元能力，成就每一位學生。
  - 〈5〉高三：依班群開設充實課程「生涯大師」，協助學生大學院系探索、國內外升學輔導、職業環境與學群瞭解等，以配合自身優勢能力、生涯興趣及工作價值觀，建構生涯藍圖。
8. 社會人文班群課程說明：  
加深加廣選修：開設語文、社會領域各科部定加深加廣課程，深化大學相關學群學系所需學科基礎知識，並協助學生具備參加分科測驗紮實學科基礎，協助銜接未來大學升學進路。
9. 數理科技及醫藥生技班群課程說明：  
加深加廣選修：開設數學、自然、科技領域各科部定加深加廣課程，深化大學相關學群學系所需學科基礎知識，並協助學生具備參加分科測驗紮實學科基礎，協助銜接未來大學升學進路。
10. 外語相關課程：



依各學年段學生語文能力與發展特質，自編英語文教材、規畫適性英語教學課程與活動，並透過各類課堂活動、展演競賽以及海外文化交流，紮根英語文基礎與溝通能力的培養；另開設第二外語課程，涵養學生尊重多元文化的態度，具備國際視野。

11. 依各學年段學生身心發展特質，設計規畫適性音樂教學與活動，紮根音樂基礎與樂器專長能力培養，並透過社團活動、校隊培訓及國內外音樂交流，涵養有教養、具美感的靜心人。

12. 專長培育課程：本校中小學向來重視學生一人一專長，落實社團及專長培育為學校辦學特色，向來深獲家長肯定，高中部將秉持一貫辦學理念延續學生專長〈學藝、才藝、跨域能力等〉之培育，實屬學校特色課程重要之一環。

【備查版】

【備查版】

## 陸、教學科目與學分(節)數一覽表

114學年度入學新生適用

班別：普通班（班群A）：社會人文

| 類別 | 領域     | 科目名稱   | 第一學年 |     | 第二學年 |     | 第三學年 |   | 學分數<br>小計 | 備註                                               |
|----|--------|--------|------|-----|------|-----|------|---|-----------|--------------------------------------------------|
|    |        |        | 一    | 二   | 一    | 二   | 一    | 二 |           |                                                  |
| 必修 | 語文領域   | 國語文    | 4    | 4   | 4    | 4   | 4    | 0 | 20        |                                                  |
|    |        | 客語文    | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 原住民族語文 | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 閩南語文   | 1    | 1   | 0    | 0   | 0    | 0 | 2         |                                                  |
|    |        | 閩東語文   | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 臺灣手語   | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 英語文    | 4    | 4   | 4    | 4   | 2    | 0 | 18        |                                                  |
|    | 數學領域   | 數學A    | 4    | 4   | (4)  | (4) |      |   | 16        |                                                  |
|    |        | 數學B    |      |     | 4    | 4   |      |   |           |                                                  |
|    | 社會領域   | 歷史     | 2    | 2   | 2    | 0   |      |   | 6         |                                                  |
|    |        | 地理     | 2    | 2   | 2    | 0   |      |   | 6         |                                                  |
|    |        | 公民與社會  | 2    | 2   | 0    | 2   |      |   | 6         |                                                  |
|    | 自然科學領域 | 物理     | 2    | (2) | 2    | (2) |      |   | 4         | 說明：二上、二下物理含跨科目(物理、地球科學)之自然科學探究與實作課程A。<br>高一與地科對開 |
|    |        | 化學     | (2)  | 2   | 0    | 0   |      |   | 2         | 高一與生物對開                                          |
|    |        | 生物     | 2    | (2) | (2)  | 2   |      |   | 4         | 說明：二上、二下生物含跨科目(化學、生物)之自然科學探究與實作課程B。<br>高一與化學對開   |
|    |        | 地球科學   | (2)  | 2   | 0    | 0   |      |   | 2         | 高一與物理對開                                          |
|    | 藝術領域   | 音樂     | 0    | 0   | 1    | 1   | 0    | 0 | 2         |                                                  |
|    |        | 美術     | 0    | 0   | 0    | 2   | 0    | 0 | 2         |                                                  |
|    |        | 藝術生活   | 0    | 2   | 0    | 0   | 2    | 2 | 6         |                                                  |
|    | 綜合活動領域 | 生命教育   | 1    | 0   | 0    | 0   | 0    | 0 | 1         |                                                  |
|    |        | 生涯規劃   | 0    | 1   | 0    | 0   | 0    | 0 | 1         |                                                  |
|    |        | 家政     | 0    | 0   | 0    | 2   | 0    | 0 | 2         |                                                  |

|        |             |             |    |     |    |    |     |     |     |  |
|--------|-------------|-------------|----|-----|----|----|-----|-----|-----|--|
|        | 科技領域        | 生活科技        | 0  | 0   | 2  | 0  | 0   | 0   | 2   |  |
|        |             | 資訊科技        | 2  | 0   | 0  | 0  | 0   | 0   | 2   |  |
|        | 健康與體育領域     | 健康與護理       | 0  | 0   | 0  | 0  | 1   | 1   | 2   |  |
|        |             | 體育          | 2  | 2   | 2  | 2  | 2   | 2   | 12  |  |
|        | 全民國防教育      |             | 0  | 0   | 0  | 0  | 1   | 1   | 2   |  |
|        | 必修學分數小計     |             | 28 | 28  | 23 | 23 | 12  | 6   | 120 |  |
|        | 每週團體活動時間    |             | 2  | 2   | 2  | 2  | 3   | 3   | 14  |  |
|        | 每週彈性學習時間    |             | 2  | 2   | 3  | 3  | 2   | 2   | 14  |  |
|        | 每週節數小計      |             | 32 | 32  | 28 | 28 | 17  | 11  | 148 |  |
| 校訂必修   | 實作(實驗)及探索體驗 | 探索課程_大山之歌   | 0  | 0   | 0  | 1  | 0   | 0   | 1   |  |
|        |             | 探索課程_山的禮物   | 0  | 0   | 0  | 0  | 0   | 1   | 1   |  |
|        |             | 探索課程_走向群山   | 0  | 0   | 0  | 0  | 1   | 0   | 1   |  |
|        |             | 探索課程_海洋之心   | 0  | 1   | 0  | 0  | 0   | 0   | 1   |  |
|        |             | 探索課程_無痕山林   | 0  | 0   | 1  | 0  | 0   | 0   | 1   |  |
|        |             | 探索課程_想望海洋   | 1  | 0   | 0  | 0  | 0   | 0   | 1   |  |
|        | 校訂必修學分數小計   |             | 1  | 1   | 1  | 1  | 1   | 1   | 6   |  |
| 加深加廣選修 | 語文領域        | 國學常識        | 0  | (2) | 0  | 0  | 0   | 0   | 0   |  |
|        |             | 語文表達與傳播應用   | 0  | 0   | 0  | 0  | (1) | (1) | 0   |  |
|        |             | 各類文學選讀      | 0  | 0   | 1  | 1  | 0   | 0   | 2   |  |
|        |             | 專題閱讀與研究     | 0  | 0   | 0  | 0  | 1   | 1   | 2   |  |
|        |             | 英語聽講        | 0  | 0   | 0  | 0  | 1   | 1   | 2   |  |
|        |             | 英文閱讀與寫作     | 0  | 0   | 0  | 0  | 1   | 1   | 2   |  |
|        |             | 英文作文        | 0  | 0   | 0  | 0  | 1   | 1   | 2   |  |
|        |             | 閩南語文口語溝通與表達 | 0  | 0   | 0  | 0  | 0   | 2   | 2   |  |
|        | 數學領域        | 數學甲         | 0  | 0   | 0  | 0  | (4) | (4) | 0   |  |
|        |             | 數學乙         | 0  | 0   | 0  | 0  | 4   | 4   | 8   |  |
|        | 社會領域        | 族群、性別與國家的歷史 | 0  | 0   | 0  | 0  | 3   | 0   | 3   |  |
|        |             | 科技、環境與藝術的歷史 | 0  | 0   | 0  | 0  | 0   | 3   | 3   |  |
|        |             | 空間資訊科技      | 0  | 0   | 0  | 0  | 3   | 0   | 3   |  |
|        |             | 社會環境議題      | 0  | 0   | 0  | 0  | 0   | 3   | 3   |  |
|        |             | 現代社會與經濟     | 0  | 0   | 0  | 0  | 0   | 3   | 3   |  |
|        |             | 民主政治與法律     | 0  | 0   | 0  | 0  | 3   | 0   | 3   |  |



|      |         |                   |     |     |     |     |     |     |   |  |
|------|---------|-------------------|-----|-----|-----|-----|-----|-----|---|--|
|      |         | 探究與實作：歷史學探究       | 0   | 0   | 0   | 2   | 0   | 0   | 2 |  |
|      |         | 探究與實作：地理與人文社會科學研究 | 0   | 0   | 0   | 2   | 0   | 0   | 2 |  |
|      |         | 探究與實作：公共議題與社會探究   | 0   | 0   | 2   | 0   | 0   | 0   | 2 |  |
|      | 藝術領域    | 表演創作              | 0   | 0   | (1) | (1) | 0   | 0   | 0 |  |
|      |         | 基本設計              | 0   | 0   | 0   | 0   | (1) | 0   | 0 |  |
|      |         | 多媒體音樂             | 0   | 0   | (1) | (1) | 0   | 0   | 0 |  |
|      |         | 新媒體藝術             | 0   | 0   | 0   | 0   | 0   | (1) | 0 |  |
|      | 綜合活動領域  | 未來想像與生涯進路         | 0   | 0   | (1) | (1) | 0   | 0   | 0 |  |
|      |         | 思考：智慧的啟航          | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 創新生活與家庭           | 0   | 0   | 0   | 0   | (1) | (1) | 0 |  |
|      | 科技領域    | 工程設計專題            | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 領域課程：科技應用專題       | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
|      |         | 領域課程：機器人專題        | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|      | 健康與體育領域 | 安全教育與傷害防護         | 0   | 0   | 0   | 0   | (1) | (1) | 0 |  |
|      |         | 運動與健康             | 0   | 0   | 0   | 0   | (1) | (1) | 0 |  |
|      |         | 健康與休閒生活           | 0   | 0   | 1   | 1   | 0   | 0   | 2 |  |
| 多元選修 | 第二外國語文  | 日語1               | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 日語2               | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 日語3               | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
|      |         | 日語4               | 0   | 0   | 0   | (2) | 0   | 0   | 0 |  |
|      |         | 日語5               | 0   | 0   | 0   | 0   | (2) | 0   | 0 |  |
|      |         | 日語6               | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
|      |         | 西班牙語1             | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 西班牙語2             | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 西班牙語3             | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
|      |         | 西班牙語4             | 0   | 0   | 0   | (2) | 0   | 0   | 0 |  |
|      |         | 西班牙語5             | 0   | 0   | 0   | 0   | (2) | 0   | 0 |  |
|      |         | 西班牙語6             | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
|      |         | 法語1               | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 法語2               | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 法語3               | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
|      |         | 法語4               | 0   | 0   | 0   | (2) | 0   | 0   | 0 |  |
|      |         | 法語5               | 0   | 0   | 0   | 0   | (2) | 0   | 0 |  |
|      |         | 法語6               | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
|      |         | 德語1               | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 德語2               | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|      |         | 德語3               | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
|      |         | 德語4               | 0   | 0   | 0   | (2) | 0   | 0   | 0 |  |
|      |         | 德語5               | 0   | 0   | 0   | 0   | (2) | 0   | 0 |  |

|             |                  |     |     |     |     |     |     |   |  |
|-------------|------------------|-----|-----|-----|-----|-----|-----|---|--|
|             | 德語6              | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
| 專題探究        | 《史記》專題探究(下)      | 0   | 0   | 0   | (2) | 0   | 0   | 0 |  |
|             | 《史記》專題探究(上)      | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
|             | 《紅樓夢》專題探究(下)     | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
|             | 《紅樓夢》專題探究(上)     | 0   | 0   | 0   | 0   | (2) | 0   | 0 |  |
|             | 財經法律理論與實務        | 0   | 0   | 2   | 0   | 0   | 0   | 2 |  |
|             | 微積分概論            | 0   | 0   | 0   | 0   | 0   | 2   | 2 |  |
| 通識性課程       | 自然科學方法論          | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|             | 科學論文寫作概論         | 2   | 0   | 0   | 0   | 0   | 0   | 2 |  |
| 實作(實驗)及探索體驗 | 走遊世界(下)          | 0   | 0   | 0   | (2) | 0   | 0   | 0 |  |
|             | 走遊世界(上)          | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
|             | 岩石的探索-台灣岩石的分布與用途 | 0   | 2   | 0   | 0   | 0   | 0   | 2 |  |
|             | 教室中的元社會          | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|             | 創作性舞蹈            | 0   | 0   | 0   | 0   | 0   | (1) | 0 |  |
|             | 視覺與環境設計          | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
| 跨領域/科目專題    | 物聯網專題製作          | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
|             | 城市的歷史記憶(下)       | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
|             | 城市的歷史記憶(上)       | 0   | 0   | 0   | 0   | (2) | 0   | 0 |  |
|             | 英文新聞臺(下)         | 0   | 0   | 0   | (2) | 0   | 0   | 0 |  |
|             | 英文新聞臺(上)         | 0   | 0   | (2) | 0   | 0   | 0   | 0 |  |
|             | 英文新聞編採(下)        | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|             | 英文新聞編採(上)        | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|             | 經典電影賞析與創作(下)     | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
|             | 經典電影賞析與創作(上)     | 0   | 0   | 0   | 0   | (2) | 0   | 0 |  |
| 職涯試探        | 傳播學的想像           | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|             | 新聞理論與實務(下)       | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |
|             | 新聞理論與實務(上)       | 0   | 0   | 0   | 0   | (2) | 0   | 0 |  |
| 跨領域/科目統整    | 生活中的藝術科學         | (2) | 0   | 0   | 0   | 0   | 0   | 0 |  |
|             | 物聯網入門            | 0   | 0   | 0   | 0   | 0   | 2   | 2 |  |
|             | 桌遊漫遊與創作          | 0   | (2) | 0   | 0   | 0   | 0   | 0 |  |
|             | 財經理論             | 0   | 0   | 0   | 0   | 0   | (2) | 0 |  |

|          |    |    |    |    |    |    |     |  |
|----------|----|----|----|----|----|----|-----|--|
| 選修學分數總計  | 2  | 2  | 6  | 6  | 17 | 23 | 56  |  |
| 必選修學分數總計 | 31 | 31 | 30 | 30 | 30 | 30 | 182 |  |
| 每週節數總計   | 35 | 35 | 35 | 35 | 35 | 35 | 210 |  |

【備查版】

【備查版】

班別：普通班（班群B）：數理科技

| 類別 | 領域     | 科目名稱   | 第一學年 |     | 第二學年 |     | 第三學年 |   | 學分數<br>小計 | 備註                                               |
|----|--------|--------|------|-----|------|-----|------|---|-----------|--------------------------------------------------|
|    |        |        | 一    | 二   | 一    | 二   | 一    | 二 |           |                                                  |
| 必修 | 語文領域   | 國語文    | 4    | 4   | 4    | 4   | 4    | 0 | 20        |                                                  |
|    |        | 客語文    | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 原住民族語文 | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 閩南語文   | 1    | 1   | 0    | 0   | 0    | 0 | 2         |                                                  |
|    |        | 閩東語文   | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 臺灣手語   | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 英語文    | 4    | 4   | 4    | 4   | 2    | 0 | 18        |                                                  |
|    | 數學領域   | 數學A    | 4    | 4   | 4    | 4   |      |   | 16        |                                                  |
|    |        | 數學B    |      |     | (4)  | (4) |      |   |           |                                                  |
|    | 社會領域   | 歷史     | 2    | 2   | 2    | 0   |      |   | 6         |                                                  |
|    |        | 地理     | 2    | 2   | 2    | 0   |      |   | 6         |                                                  |
|    |        | 公民與社會  | 2    | 2   | 0    | 2   |      |   | 6         |                                                  |
|    | 自然科學領域 | 物理     | 2    | (2) | 2    | (2) |      |   | 4         | 說明：二上、二下物理含跨科目(物理、地球科學)之自然科學探究與實作課程A。<br>高一與地科對開 |
|    |        | 化學     | (2)  | 2   | 0    | 0   |      |   | 2         | 高一與生物對開                                          |
|    |        | 生物     | 2    | (2) | (2)  | 2   |      |   | 4         | 說明：二上、二下生物含跨科目(化學、生物)之自然科學探究與實作課程B。<br>高一與化學對開   |
|    |        | 地球科學   | (2)  | 2   | 0    | 0   |      |   | 2         | 高一與物理對開                                          |
|    | 藝術領域   | 音樂     | 0    | 0   | 1    | 1   | 0    | 0 | 2         |                                                  |
|    |        | 美術     | 0    | 0   | 0    | 2   | 0    | 0 | 2         |                                                  |
|    |        | 藝術生活   | 0    | 2   | 0    | 0   | 2    | 2 | 6         |                                                  |
|    | 綜合活動領域 | 生命教育   | 1    | 0   | 0    | 0   | 0    | 0 | 1         |                                                  |
|    |        | 生涯規劃   | 0    | 1   | 0    | 0   | 0    | 0 | 1         |                                                  |
|    |        | 家政     | 0    | 0   | 0    | 2   | 0    | 0 | 2         |                                                  |
|    | 科技領域   | 生活科技   | 0    | 0   | 2    | 0   | 0    | 0 | 2         |                                                  |
|    |        | 資訊科技   | 2    | 0   | 0    | 0   | 0    | 0 | 2         |                                                  |



|        |             |                 |    |     |    |    |     |     |     |
|--------|-------------|-----------------|----|-----|----|----|-----|-----|-----|
|        | 健康與體育領域     | 健康與護理           | 0  | 0   | 0  | 1  | 1   | 2   |     |
|        |             | 體育              | 2  | 2   | 2  | 2  | 2   | 12  |     |
|        | 全民國防教育      |                 | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        | 必修學分數小計     |                 | 28 | 28  | 23 | 23 | 12  | 6   | 120 |
|        | 每週團體活動時間    |                 | 2  | 2   | 2  | 2  | 3   | 3   | 14  |
|        | 每週彈性學習時間    |                 | 2  | 2   | 3  | 3  | 2   | 2   | 14  |
|        | 每週節數小計      |                 | 32 | 32  | 28 | 28 | 17  | 11  | 148 |
| 校訂必修   | 實作(實驗)及探索體驗 | 探索課程_大山之歌       | 0  | 0   | 0  | 1  | 0   | 0   | 1   |
|        |             | 探索課程_山的禮物       | 0  | 0   | 0  | 0  | 0   | 1   | 1   |
|        |             | 探索課程_走向群山       | 0  | 0   | 0  | 0  | 1   | 0   | 1   |
|        |             | 探索課程_海洋之心       | 0  | 1   | 0  | 0  | 0   | 0   | 1   |
|        |             | 探索課程_無痕山林       | 0  | 0   | 1  | 0  | 0   | 0   | 1   |
|        |             | 探索課程_想望海洋       | 1  | 0   | 0  | 0  | 0   | 0   | 1   |
|        | 校訂必修學分數小計   |                 | 1  | 1   | 1  | 1  | 1   | 1   | 6   |
| 加深加廣選修 | 語文領域        | 國學常識            | 0  | (2) | 0  | 0  | 0   | 0   | 0   |
|        |             | 語文表達與傳播應用       | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 各類文學選讀          | 0  | 0   | 1  | 1  | 0   | 0   | 2   |
|        |             | 專題閱讀與研究         | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 英語聽講            | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 英文閱讀與寫作         | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 英文作文            | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 閩南語文口語溝通與表達     | 0  | 0   | 0  | 0  | 0   | (2) | 0   |
|        | 數學領域        | 數學甲             | 0  | 0   | 0  | 0  | 4   | 4   | 8   |
|        |             | 數學乙             | 0  | 0   | 0  | 0  | (4) | (4) | 0   |
|        | 自然科學領域      | 選修物理-力學一        | 0  | 0   | 2  | 0  | 0   | 0   | 2   |
|        |             | 選修物理-力學二與熱學     | 0  | 0   | 0  | 2  | 0   | 0   | 2   |
|        |             | 選修物理-波動、光及聲音    | 0  | 0   | 0  | 0  | (2) | 0   | 0   |
|        |             | 選修物理-電磁現象一      | 0  | 0   | 0  | 0  | (2) | 0   | 0   |
|        |             | 選修物理-電磁現象二與量子現象 | 0  | 0   | 0  | 0  | 0   | (2) | 0   |
|        |             | 選修化學-物質與能量      | 0  | 0   | 2  | 0  | 0   | 0   | 2   |
|        |             | 選修化學-物質構造與反應速   | 0  | 0   | 0  | 2  | 0   | 0   | 2   |

|      |         |                 |     |     |     |     |     |     |   |
|------|---------|-----------------|-----|-----|-----|-----|-----|-----|---|
|      |         | 率               |     |     |     |     |     |     |   |
|      |         | 選修化學-化學反應與平衡一   | 0   | 0   | 0   | 0   | 2   | 0   | 2 |
|      |         | 選修化學-化學反應與平衡二   | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      |         | 選修化學-有機化學與應用科技  | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 選修地球科學-地質與環境    | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 選修地球科學-大氣、海洋及天文 | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      | 藝術領域    | 表演創作            | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 基本設計            | 0   | 0   | 0   | 0   | 1   | 0   | 1 |
|      |         | 多媒體音樂           | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 新媒體藝術           | 0   | 0   | 0   | 0   | 0   | 1   | 1 |
|      | 綜合活動領域  | 未來想像與生涯進路       | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 思考：智慧的啟航        | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      |         | 創新生活與家庭         | 0   | 0   | 0   | 0   | 1   | 1   | 2 |
|      | 科技領域    | 工程設計專題          | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|      |         | 領域課程：科技應用專題     | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 進階程式設計          | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 領域課程：機器人專題      | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      | 健康與體育領域 | 安全教育與傷害防護       | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      |         | 運動與健康           | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      |         | 健康與休閒生活         | 0   | 0   | 1   | 1   | 0   | 0   | 2 |
| 多元選修 | 第二外國語文  | 日語1             | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      |         | 日語2             | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|      |         | 日語3             | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 日語4             | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 日語5             | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 日語6             | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 西班牙語1           | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      |         | 西班牙語2           | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|      |         | 西班牙語3           | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 西班牙語4           | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 西班牙語5           | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 西班牙語6           | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 法語1             | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      |         | 法語2             | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|      |         | 法語3             | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 法語4             | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 法語5             | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 法語6             | 0   | 0   | 0   | 0   | 0   | (2) | 0 |

|             |                  |     |     |     |     |     |     |     |   |
|-------------|------------------|-----|-----|-----|-----|-----|-----|-----|---|
|             |                  | 德語1 | (2) | 0   | 0   | 0   | 0   | 0   |   |
|             |                  | 德語2 | 0   | (2) | 0   | 0   | 0   | 0   |   |
|             |                  | 德語3 | 0   | 0   | (2) | 0   | 0   | 0   |   |
|             |                  | 德語4 | 0   | 0   | 0   | (2) | 0   | 0   |   |
|             |                  | 德語5 | 0   | 0   | 0   | 0   | (2) | 0   |   |
|             |                  | 德語6 | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
| 專題探究        | 《史記》專題探究(下)      | 0   | 0   | 0   | (2) | 0   | 0   | 0   |   |
|             | 《史記》專題探究(上)      | 0   | 0   | (2) | 0   | 0   | 0   | 0   |   |
|             | 《紅樓夢》專題探究(下)     | 0   | 0   | 0   | 0   | 0   | (2) | 0   |   |
|             | 《紅樓夢》專題探究(上)     | 0   | 0   | 0   | 0   | (2) | 0   | 0   |   |
|             | 半導體原理與製造概論       | 0   | 0   | 0   | (2) | 0   | 2   | 2   |   |
|             | 微積分(下)           | 0   | 0   | 0   | 0   | 0   | (2) | 0   |   |
|             | 微積分(上)           | 0   | 0   | 0   | 0   | (2) | 0   | 0   |   |
|             | 微積分概論            | 0   | 0   | 0   | 0   | 0   | 2   | 2   |   |
|             | 線性代數(下)          | 0   | 0   | 0   | 0   | 0   | 2   | 2   |   |
|             | 線性代數(上)          | 0   | 0   | 0   | 0   | 2   | 0   | 2   |   |
|             | 機器人設計            | 0   | 0   | (2) | 0   | 0   | 0   | 0   |   |
| 通識性課程       | 自然科學方法論          | 0   | (2) | 0   | 0   | 0   | 0   | 0   |   |
|             | 科學論文寫作概論         | 2   | 0   | 0   | 0   | 0   | 0   | 2   |   |
|             | 電影與文學中的生物科技      | 0   | 0   | 0   | 0   | 0   | (2) | 0   |   |
| 實作(實驗)及探索體驗 | 化學彩色王國           | 0   | 0   | (2) | 0   | 0   | 0   | 0   |   |
|             | 化學探祕             | 0   | 0   | 0   | (2) | 0   | 0   | 0   |   |
|             | 岩石的探索-台灣岩石的分布與用途 | 0   | 2   | 0   | 0   | 0   | 0   | 2   |   |
|             | 物理辯論             | 0   | 0   | (2) | 0   | 0   | 0   | 0   |   |
|             | 物理辯論(下)          | 0   | 0   | 0   | (2) | 0   | 0   | 0   |   |
|             | 物理辯論(上)          | 0   | 0   | (2) | 0   | 0   | 0   | 0   |   |
|             | 表演藝術中的科學概論       | 0   | 0   | 0   | 0   | (2) | 0   | 0   |   |
|             | 表演藝術中的科學應用       | 0   | 0   | 0   | 0   | 0   | 2   | 2   |   |
|             | 教室中的元社會          | (2) | 0   | 0   | 0   | 0   | 0   | 0   |   |
|             | 創作性舞蹈            | 0   | 0   | 0   | 0   | 0   | (1) | 0   |   |
|             | 電子學原理與實驗(下)      | 0   | 0   | 0   | 0   | 0   | (2) | 0   |   |
|             | 電子學原理與實驗(上)      | 0   | 0   | 0   | 0   | (2) | 0   | 0   |   |
| 跨領域/科目專題    | 物聯網專題製作          | 0   | 0   | 0   | 0   | 0   | (2) | 0   |   |
|             | 城市的歷史記憶(下)       | 0   | 0   | 0   | 0   | 0   | (2) | 0   |   |
|             | 城市的歷史記憶(上)       | 0   | 0   | 0   | 0   | (2) | 0   | 0   |   |

|          |          |              |     |     |     |     |     |     |     |  |
|----------|----------|--------------|-----|-----|-----|-----|-----|-----|-----|--|
|          |          | 英文新聞臺(下)     | 0   | 0   | 0   | (2) | 0   | 0   | 0   |  |
|          |          | 英文新聞臺(上)     | 0   | 0   | (2) | 0   | 0   | 0   | 0   |  |
|          |          | 英文新聞編採(下)    | 0   | (2) | 0   | 0   | 0   | 0   | 0   |  |
|          |          | 英文新聞編採(上)    | (2) | 0   | 0   | 0   | 0   | 0   | 0   |  |
|          |          | 經典電影賞析與創作(下) | 0   | 0   | 0   | 0   | 0   | (2) | 0   |  |
|          |          | 經典電影賞析與創作(上) | 0   | 0   | 0   | 0   | (2) | 0   | 0   |  |
|          | 職涯試探     | 傳播學的想像       | 0   | (2) | 0   | 0   | 0   | 0   | 0   |  |
|          | 跨領域/科目統整 | 生活中的藝術科學     | (2) | 0   | 0   | 0   | 0   | 0   | 0   |  |
|          |          | 生醫工程         | 0   | 0   | 0   | 0   | 0   | (2) | 0   |  |
|          |          | 生醫工程概論       | 0   | 0   | 0   | 0   | (2) | 0   | 0   |  |
|          |          | 物聯網入門        | 0   | 0   | 0   | 0   | 0   | 2   | 2   |  |
|          |          | 桌遊漫遊與創作      | 0   | (2) | 0   | 0   | 0   | 0   | 0   |  |
|          |          | 航太工程概論(下)    | 0   | 0   | 0   | 0   | 0   | 2   | 2   |  |
|          |          | 航太工程概論(上)    | 0   | 0   | 0   | 0   | 2   | 0   | 2   |  |
|          |          | 財經理論         | 0   | 0   | 0   | 0   | 0   | (2) | 0   |  |
|          |          | 數學建模(下)      | 0   | 0   | 0   | (2) | 0   | 0   | 0   |  |
|          |          | 數學建模(上)      | 0   | 0   | (2) | 0   | 0   | 0   | 0   |  |
| 選修學分數總計  |          |              | 2   | 2   | 6   | 6   | 17  | 23  | 56  |  |
| 必選修學分數總計 |          |              | 31  | 31  | 30  | 30  | 30  | 30  | 182 |  |
| 每週節數總計   |          |              | 35  | 35  | 35  | 35  | 35  | 35  | 210 |  |

班別：普通班（班群C）：醫藥生技

| 類別 | 領域     | 科目名稱   | 第一學年 |     | 第二學年 |     | 第三學年 |   | 學分數<br>小計 | 備註                                               |
|----|--------|--------|------|-----|------|-----|------|---|-----------|--------------------------------------------------|
|    |        |        | 一    | 二   | 一    | 二   | 一    | 二 |           |                                                  |
| 必修 | 語文領域   | 國語文    | 4    | 4   | 4    | 4   | 4    | 0 | 20        |                                                  |
|    |        | 客語文    | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 原住民族語文 | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 閩南語文   | 1    | 1   | 0    | 0   | 0    | 0 | 2         |                                                  |
|    |        | 閩東語文   | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 臺灣手語   | (1)  | (1) | 0    | 0   | 0    | 0 | 0         |                                                  |
|    |        | 英語文    | 4    | 4   | 4    | 4   | 2    | 0 | 18        |                                                  |
|    | 數學領域   | 數學A    | 4    | 4   | 4    | 4   |      |   | 16        |                                                  |
|    |        | 數學B    |      |     | (4)  | (4) |      |   |           |                                                  |
|    | 社會領域   | 歷史     | 2    | 2   | 2    | 0   |      |   | 6         |                                                  |
|    |        | 地理     | 2    | 2   | 2    | 0   |      |   | 6         |                                                  |
|    |        | 公民與社會  | 2    | 2   | 0    | 2   |      |   | 6         |                                                  |
|    | 自然科學領域 | 物理     | 2    | (2) | 2    | (2) |      |   | 4         | 說明：二上、二下物理含跨科目(物理、地球科學)之自然科學探究與實作課程A。<br>高一與地科對開 |
|    |        | 化學     | (2)  | 2   | 0    | 0   |      |   | 2         | 高一與生物對開                                          |
|    |        | 生物     | 2    | (2) | (2)  | 2   |      |   | 4         | 說明：二上、二下生物含跨科目(化學、生物)之自然科學探究與實作課程B。<br>高一與化學對開   |
|    |        | 地球科學   | (2)  | 2   | 0    | 0   |      |   | 2         | 高一與物理對開                                          |
|    | 藝術領域   | 音樂     | 0    | 0   | 1    | 1   | 0    | 0 | 2         |                                                  |
|    |        | 美術     | 0    | 0   | 0    | 2   | 0    | 0 | 2         |                                                  |
|    |        | 藝術生活   | 0    | 2   | 0    | 0   | 2    | 2 | 6         |                                                  |
|    | 綜合活動領域 | 生命教育   | 1    | 0   | 0    | 0   | 0    | 0 | 1         |                                                  |
|    |        | 生涯規劃   | 0    | 1   | 0    | 0   | 0    | 0 | 1         |                                                  |
|    |        | 家政     | 0    | 0   | 0    | 2   | 0    | 0 | 2         |                                                  |
|    | 科技領域   | 生活科技   | 0    | 0   | 2    | 0   | 0    | 0 | 2         |                                                  |
|    |        | 資訊科技   | 2    | 0   | 0    | 0   | 0    | 0 | 2         |                                                  |



|        |             |                 |    |     |    |    |     |     |     |
|--------|-------------|-----------------|----|-----|----|----|-----|-----|-----|
|        | 健康與體育領域     | 健康與護理           | 0  | 0   | 0  | 0  | 1   | 2   |     |
|        |             | 體育              | 2  | 2   | 2  | 2  | 2   | 12  |     |
|        | 全民國防教育      |                 | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        | 必修學分數小計     |                 | 28 | 28  | 23 | 23 | 12  | 6   | 120 |
|        | 每週團體活動時間    |                 | 2  | 2   | 2  | 2  | 3   | 3   | 14  |
|        | 每週彈性學習時間    |                 | 2  | 2   | 3  | 3  | 2   | 2   | 14  |
|        | 每週節數小計      |                 | 32 | 32  | 28 | 28 | 17  | 11  | 148 |
| 校訂必修   | 實作(實驗)及探索體驗 | 探索課程_大山之歌       | 0  | 0   | 0  | 1  | 0   | 0   | 1   |
|        |             | 探索課程_山的禮物       | 0  | 0   | 0  | 0  | 0   | 1   | 1   |
|        |             | 探索課程_走向群山       | 0  | 0   | 0  | 0  | 1   | 0   | 1   |
|        |             | 探索課程_海洋之心       | 0  | 1   | 0  | 0  | 0   | 0   | 1   |
|        |             | 探索課程_無痕山林       | 0  | 0   | 1  | 0  | 0   | 0   | 1   |
|        |             | 探索課程_想望海洋       | 1  | 0   | 0  | 0  | 0   | 0   | 1   |
|        | 校訂必修學分數小計   |                 | 1  | 1   | 1  | 1  | 1   | 1   | 6   |
| 加深加廣選修 | 語文領域        | 國學常識            | 0  | (2) | 0  | 0  | 0   | 0   | 0   |
|        |             | 語文表達與傳播應用       | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 各類文學選讀          | 0  | 0   | 1  | 1  | 0   | 0   | 2   |
|        |             | 專題閱讀與研究         | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 英語聽講            | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 英文閱讀與寫作         | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 英文作文            | 0  | 0   | 0  | 0  | 1   | 1   | 2   |
|        |             | 閩南語文口語溝通與表達     | 0  | 0   | 0  | 0  | 0   | (2) | 0   |
|        | 數學領域        | 數學甲             | 0  | 0   | 0  | 0  | 4   | 4   | 8   |
|        |             | 數學乙             | 0  | 0   | 0  | 0  | (4) | (4) | 0   |
|        | 自然科學領域      | 選修物理-力學一        | 0  | 0   | 2  | 0  | 0   | 0   | 2   |
|        |             | 選修物理-力學二與熱學     | 0  | 0   | 0  | 2  | 0   | 0   | 2   |
|        |             | 選修物理-波動、光及聲音    | 0  | 0   | 0  | 0  | (2) | 0   | 0   |
|        |             | 選修物理-電磁現象一      | 0  | 0   | 0  | 0  | (2) | 0   | 0   |
|        |             | 選修物理-電磁現象二與量子現象 | 0  | 0   | 0  | 0  | 0   | (2) | 0   |
|        |             | 選修化學-物質與能量      | 0  | 0   | 2  | 0  | 0   | 0   | 2   |
|        |             | 選修化學-物質構造與反應速   | 0  | 0   | 0  | 2  | 0   | 0   | 2   |

|      |         |                      |     |     |     |     |     |     |   |
|------|---------|----------------------|-----|-----|-----|-----|-----|-----|---|
| 多元選修 |         | 率                    |     |     |     |     |     |     |   |
|      |         | 選修化學-化學反應與平衡一        | 0   | 0   | 0   | 0   | 2   | 0   | 2 |
|      |         | 選修化學-化學反應與平衡二        | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      |         | 選修化學-有機化學與應用科技       | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 選修生物-細胞與遺傳           | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 選修生物-動物體的構造與功能       | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 選修生物-生命的起源與植物體的構造與功能 | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 選修生物-生態、演化及生物多樣性     | 0   | 0   | 0   | 0   | 0   | 2   | 2 |
|      |         | 選修地球科學-地質與環境         | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 選修地球科學-大氣、海洋及天文      | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      | 藝術領域    | 表演創作                 | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 基本設計                 | 0   | 0   | 0   | 0   | 1   | 0   | 1 |
|      |         | 多媒體音樂                | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 新媒體藝術                | 0   | 0   | 0   | 0   | 0   | 1   | 1 |
|      | 綜合活動領域  | 未來想像與生涯進路            | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 思考：智慧的啟航             | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      |         | 創新生活與家庭              | 0   | 0   | 0   | 0   | 1   | 1   | 2 |
|      | 科技領域    | 工程設計專題               | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|      |         | 領域課程：科技應用專題          | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 進階程式設計               | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 領域課程：機器人專題           | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      | 健康與體育領域 | 安全教育與傷害防護            | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      |         | 運動與健康                | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      |         | 健康與休閒生活              | 0   | 0   | 1   | 1   | 0   | 0   | 2 |
| 多元選修 | 第二外國語文  | 日語1                  | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      |         | 日語2                  | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|      |         | 日語3                  | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 日語4                  | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 日語5                  | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 日語6                  | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 西班牙語1                | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      |         | 西班牙語2                | 0   | (2) | 0   | 0   | 0   | 0   | 0 |

|             |       |                  |     |     |     |     |     |     |   |
|-------------|-------|------------------|-----|-----|-----|-----|-----|-----|---|
|             |       | 西班牙語3            | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|             |       | 西班牙語4            | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|             |       | 西班牙語5            | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|             |       | 西班牙語6            | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|             |       | 法語1              | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|             |       | 法語2              | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|             |       | 法語3              | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|             |       | 法語4              | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|             |       | 法語5              | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|             |       | 法語6              | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|             |       | 德語1              | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|             |       | 德語2              | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|             |       | 德語3              | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|             |       | 德語4              | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|             |       | 德語5              | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|             |       | 德語6              | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|             | 專題探究  | 《史記》專題探究(下)      | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|             |       | 《史記》專題探究(上)      | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|             |       | 《紅樓夢》專題探究(下)     | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|             |       | 《紅樓夢》專題探究(上)     | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|             |       | 半導體原理與製造概論       | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|             |       | 微積分(下)           | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|             |       | 微積分(上)           | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|             |       | 微積分概論            | 0   | 0   | 0   | 0   | 0   | 2   | 2 |
|             |       | 線性代數(下)          | 0   | 0   | 0   | 0   | 0   | 2   | 2 |
|             |       | 線性代數(上)          | 0   | 0   | 0   | 0   | 2   | 0   | 2 |
|             |       | 機器人設計            | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|             | 通識性課程 | 自然科學方法論          | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|             |       | 科學論文寫作概論         | 2   | 0   | 0   | 0   | 0   | 0   | 2 |
|             |       | 電影與文學中的生命科學      | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|             |       | 電影與文學中的生物科技      | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
| 實作(實驗)及探索體驗 |       | 岩石的探索-台灣岩石的分布與用途 | 0   | 2   | 0   | 0   | 0   | 0   | 2 |
|             |       | 表演藝術中的科學概論       | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|             |       | 表演藝術中的科學應用       | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|             |       | 教室中的元社會          | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|             |       | 創作性舞蹈            | 0   | 0   | 0   | 0   | 0   | (1) | 0 |
|             |       | 電子學原理與實驗(下)      | 0   | 0   | 0   | 0   | 0   | (2) | 0 |

|          |          |              |        |     |     |     |     |     |     |   |
|----------|----------|--------------|--------|-----|-----|-----|-----|-----|-----|---|
|          |          | 電子學原理與實驗(上)  | 0      | 0   | 0   | 0   | (2) | 0   | 0   |   |
|          | 跨領域/科目專題 | 物聯網專題製作      | 0      | 0   | 0   | 0   | 0   | (2) | 0   |   |
|          |          | 城市的歷史記憶(下)   | 0      | 0   | 0   | 0   | 0   | (2) | 0   |   |
|          |          | 城市的歷史記憶(上)   | 0      | 0   | 0   | 0   | (2) | 0   | 0   |   |
|          |          | 英文新聞臺(下)     | 0      | 0   | 0   | (2) | 0   | 0   | 0   |   |
|          |          | 英文新聞臺(上)     | 0      | 0   | (2) | 0   | 0   | 0   | 0   |   |
|          |          | 英文新聞編採(下)    | 0      | (2) | 0   | 0   | 0   | 0   | 0   |   |
|          |          | 英文新聞編採(上)    | (2)    | 0   | 0   | 0   | 0   | 0   | 0   |   |
|          |          | 經典電影賞析與創作(下) | 0      | 0   | 0   | 0   | 0   | (2) | 0   |   |
|          |          | 經典電影賞析與創作(上) | 0      | 0   | 0   | 0   | (2) | 0   | 0   |   |
|          |          | 職涯試探         | 傳播學的想像 | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|          | 跨領域/科目統整 | 大腦風暴:我即我腦    | 0      | 0   | 0   | 0   | 0   | 2   | 2   |   |
|          |          | 大腦與我         | 0      | 0   | 0   | 0   | (2) | 0   | 0   |   |
|          |          | 生活中的藝術科學     | (2)    | 0   | 0   | 0   | 0   | 0   | 0   |   |
|          |          | 生醫工程         | 0      | 0   | 0   | 0   | 0   | 2   | 2   |   |
|          |          | 生醫工程概論       | 0      | 0   | 0   | 0   | 2   | 0   | 2   |   |
|          |          | 物聯網入門        | 0      | 0   | 0   | 0   | 0   | 2   | 2   |   |
|          |          | 桌遊漫遊與創作      | 0      | (2) | 0   | 0   | 0   | 0   | 0   |   |
|          |          | 航太工程概論(下)    | 0      | 0   | 0   | 0   | 0   | (2) | 0   |   |
|          |          | 航太工程概論(上)    | 0      | 0   | 0   | 0   | (2) | 0   | 0   |   |
|          |          | 財經理論         | 0      | 0   | 0   | 0   | 0   | (2) | 0   |   |
|          |          | 數學建模(下)      | 0      | 0   | 0   | (2) | 0   | 0   | 0   |   |
|          |          | 數學建模(上)      | 0      | 0   | (2) | 0   | 0   | 0   | 0   |   |
| 選修學分數總計  |          |              | 2      | 2   | 6   | 6   | 17  | 23  | 56  |   |
| 必選修學分數總計 |          |              | 31     | 31  | 30  | 30  | 30  | 30  | 182 |   |
| 每週節數總計   |          |              | 35     | 35  | 35  | 35  | 35  | 35  | 210 |   |

| 類別 | 領域      | 科目名稱   | 第一學年 |     | 第二學年 |   | 第三學年 |   | 學分數<br>小計 | 備註 |
|----|---------|--------|------|-----|------|---|------|---|-----------|----|
|    |         |        | 一    | 二   | 上    | 下 | 上    | 下 |           |    |
| 必修 | 語文領域    | 國語文    | 0    | 0   | 0    | 0 | 0    | 0 | 0         |    |
|    |         | 客語文    | (1)  | (1) | 0    | 0 | 0    | 0 | 0         |    |
|    |         | 原住民族語文 | (1)  | (1) | 0    | 0 | 0    | 0 | 0         |    |
|    |         | 閩南語文   | 1    | 1   | 0    | 0 | 0    | 0 | 2         |    |
|    |         | 閩東語文   | (1)  | (1) | 0    | 0 | 0    | 0 | 0         |    |
|    |         | 臺灣手語   | (1)  | (1) | 0    | 0 | 0    | 0 | 0         |    |
|    |         | 英語文    | 0    | 0   | 0    | 0 | 0    | 0 | 0         |    |
|    | 數學領域    | 數學A    | 0    | 0   | 0    | 0 |      |   | 0         |    |
|    |         | 數學B    |      |     | 0    | 0 |      |   |           |    |
|    | 社會領域    | 歷史     | 0    | 0   | 0    | 0 |      |   | 0         |    |
|    |         | 地理     | 0    | 0   | 0    | 0 |      |   | 0         |    |
|    |         | 公民與社會  | 0    | 0   | 0    | 0 |      |   | 0         |    |
|    | 自然科學領域  | 物理     | 0    | 0   | 0    | 0 |      |   | 0         |    |
|    |         | 化學     | 0    | 0   | 0    | 0 |      |   | 0         |    |
|    |         | 生物     | 0    | 0   | 0    | 0 |      |   | 0         |    |
|    |         | 地球科學   | 0    | 0   | 0    | 0 |      |   | 0         |    |
|    | 藝術領域    | 音樂     | 0    | 0   | 1    | 1 | 0    | 0 | 2         |    |
|    |         | 美術     | 0    | 2   | 0    | 0 | 0    | 0 | 2         |    |
|    |         | 藝術生活   | 0    | 2   | 0    | 0 | 2    | 2 | 6         |    |
|    | 綜合活動領域  | 生命教育   | 1    | 0   | 0    | 0 | 0    | 0 | 1         |    |
|    |         | 生涯規劃   | 0    | 1   | 0    | 0 | 0    | 0 | 1         |    |
|    |         | 家政     | 0    | 0   | 0    | 0 | 2    | 0 | 2         |    |
|    | 科技領域    | 生活科技   | 2    | 0   | 0    | 0 | 0    | 0 | 2         |    |
|    |         | 資訊科技   | 2    | 0   | 0    | 0 | 0    | 0 | 2         |    |
|    | 健康與體育領域 | 健康與護理  | 0    | 0   | 0    | 0 | 1    | 1 | 2         |    |
|    |         | 體育     | 2    | 2   | 2    | 2 | 2    | 2 | 12        |    |
|    | 全民國防教育  |        | 0    | 0   | 0    | 0 | 1    | 1 | 2         |    |



|        |             |                    |     |     |     |     |    |    |    |  |
|--------|-------------|--------------------|-----|-----|-----|-----|----|----|----|--|
|        | 必修學分數小計     |                    | 8   | 8   | 3   | 3   | 8  | 6  | 36 |  |
|        | 每週團體活動時間    |                    | 2   | 2   | 2   | 2   | 3  | 3  | 14 |  |
|        | 每週彈性學習時間    |                    | 2   | 2   | 3   | 3   | 2  | 2  | 14 |  |
|        | 每週節數小計      |                    | 12  | 12  | 8   | 8   | 13 | 11 | 64 |  |
| 校訂必修   | 語文領域        | 國語文10              | 4   | 4   | 0   | 0   | 0  | 0  | 8  |  |
|        |             | 國語文11              | 0   | 0   | 4   | 4   | 0  | 0  | 8  |  |
|        |             | AP英語語言與作文          | 0   | 0   | (4) | (4) | 0  | 0  | 0  |  |
|        |             | 英語文10              | 4   | 4   | 0   | 0   | 0  | 0  | 8  |  |
|        |             | 英語文10：AP專題         | (4) | (4) | 0   | 0   | 0  | 0  | 0  |  |
|        |             | 英語文11              | 0   | 0   | 4   | 4   | 0  | 0  | 8  |  |
|        | 數學領域        | Algebra II         | 4   | 4   | 0   | 0   | 0  | 0  | 8  |  |
|        |             | AP微積分AB            | 0   | 0   | (4) | (4) | 0  | 0  | 0  |  |
|        |             | Honors Algebra II  | (4) | (4) | 0   | 0   | 0  | 0  | 0  |  |
|        |             | Honors Precalculus | 0   | 0   | (4) | (4) | 0  | 0  | 0  |  |
|        |             | Precalculus        | 0   | 0   | 4   | 4   | 0  | 0  | 8  |  |
|        | 社會領域        | 世界歷史               | 4   | 4   | 0   | 0   | 0  | 0  | 8  |  |
|        |             | 美國歷史               | 0   | 0   | 4   | 4   | 0  | 0  | 8  |  |
|        |             | AP世界歷史             | 0   | 0   | (4) | (4) | 0  | 0  | 0  |  |
|        | 自然科學領域      | AP Physics 1       | 0   | 0   | (4) | (4) | 0  | 0  | 0  |  |
|        |             | Physics            | 0   | 0   | 4   | 4   | 0  | 0  | 8  |  |
|        |             | Chemistry          | 4   | 0   | 0   | 0   | 0  | 0  | 4  |  |
|        |             | Biology            | 0   | 4   | 0   | 0   | 0  | 0  | 4  |  |
|        | 實作(實驗)及探索體驗 | 探索課程_大山之歌          | 0   | 0   | 0   | 1   | 0  | 0  | 1  |  |
|        |             | 探索課程_山的禮物          | 0   | 0   | 0   | 0   | 0  | 1  | 1  |  |
|        |             | 探索課程_走向群山          | 0   | 0   | 0   | 0   | 1  | 0  | 1  |  |
|        |             | 探索課程_海洋之心          | 0   | 1   | 0   | 0   | 0  | 0  | 1  |  |
|        |             | 探索課程_無痕山林          | 0   | 0   | 1   | 0   | 0  | 0  | 1  |  |
|        |             | 探索課程_想望海洋          | 1   | 0   | 0   | 0   | 0  | 0  | 1  |  |
|        | 校訂必修學分數小計   |                    | 21  | 21  | 21  | 21  | 1  | 1  | 86 |  |
| 加深加廣選修 | 語文領域        | 國學常識               | 0   | 0   | 0   | 0   | 0  | 0  | 0  |  |
|        |             | 語文表達與傳播應用          | 0   | 0   | 0   | 0   | 0  | 0  | 0  |  |
|        |             | 各類文學選讀             | 0   | 0   | 0   | 0   | 0  | 0  | 0  |  |
|        |             | 專題閱讀與研究            | 0   | 0   | 0   | 0   | 0  | 0  | 0  |  |
|        |             | 英語聽講               | 0   | 0   | 0   | 0   | 0  | 0  | 0  |  |
|        |             | 英文閱讀與寫作            | 0   | 0   | 0   | 0   | 0  | 0  | 0  |  |
|        |             | 英文作文               | 0   | 0   | 0   | 0   | 0  | 0  | 0  |  |

|        |                                  |   |   |   |   |   |   |   |  |
|--------|----------------------------------|---|---|---|---|---|---|---|--|
|        | 閩南語文口語<br>溝通與表達                  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| 數學領域   | 數學甲                              | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 數學乙                              | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| 社會領域   | 族群、性別與<br>國家的歷史                  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 科技、環境與<br>藝術的歷史                  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 空間資訊科技                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 社會環境議題                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 現代社會與經<br>濟                      | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 民主政治與法<br>律                      | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 探究與實作：<br>歷史學探究                  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 探究與實作：<br>地理與人文社<br>會科學研究        | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| 自然科學領域 | 探究與實作：<br>公共議題與社<br>會探究          | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修物理-力學<br>一                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修物理-力學<br>二與熱學                  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修物理-波<br>動、光及聲音                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修物理-電磁<br>現象一                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修物理-電磁<br>現象二與量子<br>現象          | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修化學-物質<br>與能量                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修化學-物質<br>構造與反應速<br>率           | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修化學-化學<br>反應與平衡一                | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修化學-化學<br>反應與平衡二                | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修化學-有機<br>化學與應用科<br>技           | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修生物-細胞<br>與遺傳                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修生物-動物<br>體的構造與功<br>能           | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修生物-生命<br>的起源與植物<br>體的構造與功<br>能 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|        | 選修生物-生<br>態、演化及生                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |

|      |         |                 |     |     |     |     |     |     |   |
|------|---------|-----------------|-----|-----|-----|-----|-----|-----|---|
|      |         | 物多樣性            |     |     |     |     |     |     |   |
|      |         | 選修地球科學-地質與環境    | 0   | 0   | 0   | 0   | 0   | 0   |   |
|      |         | 選修地球科學-大氣、海洋及天文 | 0   | 0   | 0   | 0   | 0   | 0   |   |
|      | 藝術領域    | 表演創作            | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 基本設計            | 0   | 0   | 0   | 0   | (1) | 0   | 0 |
|      |         | 多媒體音樂           | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 新媒體藝術           | 0   | 0   | 0   | 0   | 0   | (1) | 0 |
|      | 綜合活動領域  | 未來想像與生涯進路       | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
|      |         | 思考：智慧的啟航        | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      |         | 創新生活與家庭         | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      | 科技領域    | 工程設計專題          | 0   | (2) | 0   | 0   | 0   | 0   | 0 |
|      |         | 領域課程：科技應用專題     | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 進階程式設計          | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 領域課程：機器人專題      | (2) | 0   | 0   | 0   | 0   | 0   | 0 |
|      | 健康與體育領域 | 安全教育與傷害防護       | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      |         | 運動與健康           | 0   | 0   | 0   | 0   | (1) | (1) | 0 |
|      |         | 健康與休閒生活         | 0   | 0   | (1) | (1) | 0   | 0   | 0 |
| 多元選修 | 第二外國語文  | 日語1             | (2) | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 日語2             | 0   | (2) | 0   | 0   | 0   | (2) | 0 |
|      |         | 日語3             | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 日語4             | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 日語5             | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 日語6             | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 西班牙語1           | (2) | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 西班牙語2           | 0   | (2) | 0   | 0   | 0   | (2) | 0 |
|      |         | 西班牙語3           | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 西班牙語4           | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 西班牙語5           | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 西班牙語6           | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 法語1             | (2) | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 法語2             | 0   | (2) | 0   | 0   | 0   | (2) | 0 |
|      |         | 法語3             | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 法語4             | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 法語5             | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 法語6             | 0   | 0   | 0   | 0   | 0   | (2) | 0 |
|      |         | 德語1             | (2) | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 德語2             | 0   | (2) | 0   | 0   | 0   | (2) | 0 |
|      |         | 德語3             | 0   | 0   | (2) | 0   | 0   | 0   | 0 |
|      |         | 德語4             | 0   | 0   | 0   | (2) | 0   | 0   | 0 |
|      |         | 德語5             | 0   | 0   | 0   | 0   | (2) | 0   | 0 |
|      |         | 德語6             | 0   | 0   | 0   | 0   | 0   | (2) | 0 |

|             |                  |   |   |     |     |     |     |   |
|-------------|------------------|---|---|-----|-----|-----|-----|---|
| 專題探究        | 視覺藝術(上)          | 0 | 0 | (3) | 0   | 0   | 0   |   |
|             | 進階函數             | 0 | 0 | 0   | 0   | (3) | 0   |   |
|             | 機器人設計            | 0 | 0 | (2) | 0   | 0   | 0   |   |
|             | 英文文學專題探究(下)      | 0 | 0 | 0   | 0   | 0   | (3) |   |
|             | 英文文學專題探究(上)      | 0 | 0 | 0   | 0   | (3) | 0   |   |
|             | 英文作家作品分析與實作(下)   | 0 | 0 | 0   | 0   | 0   | (2) |   |
|             | 地球史與生命演化(上)      | 0 | 0 | 0   | 0   | (2) | 0   |   |
|             | 社會變遷與挑戰(下)       | 0 | 0 | 0   | 0   | 0   | 3   |   |
|             | 社會變遷與挑戰(上)       | 0 | 0 | 0   | 0   | 3   | 0   |   |
|             | 英文作家作品分析與實作(上)   | 0 | 0 | 0   | 0   | (2) | 0   |   |
|             | 商用微積分            | 0 | 0 | 0   | 0   | 0   | (3) |   |
|             | 視覺藝術(下)          | 0 | 0 | 0   | (3) | 0   | 0   |   |
|             | 世界文化導論(下)        | 0 | 0 | 0   | 0   | 0   | 3   |   |
|             | 世界文化導論(上)        | 0 | 0 | 0   | 0   | 3   | 0   |   |
|             | 地球史與生命演化(下)      | 0 | 0 | 0   | 0   | 0   | (2) | 0 |
| 通識性課程       | 經濟學(上)           | 0 | 0 | 0   | 0   | (3) | 0   |   |
|             | 國際議題研究IV         | 0 | 0 | 0   | 0   | 0   | (1) |   |
|             | 國際議題探究I          | 0 | 0 | (1) | 0   | 0   | 0   |   |
|             | 國際議題探究II         | 0 | 0 | 0   | (1) | 0   | 0   |   |
|             | 國際議題探究III        | 0 | 0 | 0   | 0   | (1) | 0   |   |
|             | 新聞英語閱讀           | 0 | 0 | 0   | 0   | (1) | (1) |   |
|             | 經濟學(下)           | 0 | 0 | 0   | 0   | 0   | (3) |   |
|             | 社會學              | 0 | 0 | 0   | 0   | 0   | 3   |   |
|             | 股市投資概論           | 0 | 0 | 0   | 0   | 0   | (2) |   |
|             | 哲學思辨             | 0 | 0 | 0   | 0   | 0   | 3   |   |
| 實作(實驗)及探索體驗 | 創作性舞蹈            | 0 | 0 | 0   | 0   | 0   | 1   |   |
| 跨領域/科目專題    | 英文新聞編採(下)        | 0 | 2 | 0   | 0   | 0   | 0   |   |
|             | 英文新聞編採(上)        | 2 | 0 | 0   | 0   | 0   | 0   |   |
|             | 經典電影賞析與創作(下)     | 0 | 0 | 0   | 0   | 0   | (2) |   |
|             | 經典電影賞析與創作(上)     | 0 | 0 | 0   | 0   | (2) | 0   |   |
|             | 人類學、心理學與社會學導論(下) | 0 | 0 | 0   | (3) | 0   | 0   |   |

|        |                  |   |   |     |     |     |     |   |  |
|--------|------------------|---|---|-----|-----|-----|-----|---|--|
|        | 人類學、心理學與社會學導論(上) | 0 | 0 | (3) | 0   | 0   | 0   | 0 |  |
|        | 英文新聞臺(下)         | 0 | 0 | 0   | 2   | 0   | 0   | 2 |  |
|        | 英文新聞臺(上)         | 0 | 0 | 2   | 0   | 0   | 0   | 2 |  |
| 大學預修課程 | 學術研究與寫作專題(下)     | 0 | 0 | 0   | 0   | 0   | 3   | 3 |  |
|        | 學術研究與寫作專題(上)     | 0 | 0 | 0   | 0   | 3   | 0   | 3 |  |
|        | AP統計學(上)         | 0 | 0 | 4   | 0   | (4) | 0   | 4 |  |
|        | AP預科微積分(下)       | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP預科微積分(上)       | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP歐洲歷史(下)        | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP 微積分AB(下)      | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP 微積分AB(上)      | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP 平面視覺設計(下)     | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP 平面視覺設計(上)     | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP化學(下)          | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP化學(上)          | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP 英語文學與作文(下)    | 0 | 0 | 0   | 0   | 0   | 4   | 4 |  |
|        | AP 英語文學與作文(上)    | 0 | 0 | 0   | 0   | 4   | 0   | 4 |  |
|        | AP 計算機科學A(下)     | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP 計算機科學A(上)     | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP生物學(下)         | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP生物學(上)         | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP 微積分BC(下)      | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP 微積分BC(上)      | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP 環境科學(下)       | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP 環境科學(上)       | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP個體經濟學          | 0 | 0 | (4) | 0   | 4   | 0   | 4 |  |
|        | AP統計學(下)         | 0 | 0 | 0   | 4   | 0   | (4) | 4 |  |
|        | AP心理學(下)         | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP心理學(上)         | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |
|        | AP世界歷史(下)        | 0 | 0 | 0   | (4) | 0   | (4) | 0 |  |
|        | AP世界歷史(上)        | 0 | 0 | (4) | 0   | (4) | 0   | 0 |  |

|         |          |               |   |   |     |     |     |     |    |  |
|---------|----------|---------------|---|---|-----|-----|-----|-----|----|--|
| 選修學分數總計 |          | AP歐洲歷史(上)     | 0 | 0 | (4) | 0   | (4) | 0   | 0  |  |
|         |          | AP總體經濟學       | 0 | 0 | 0   | (4) | 0   | (4) | 0  |  |
|         |          | AP物理C:力學      | 0 | 0 | 0   | 0   | (4) | 0   | 0  |  |
|         |          | AP物理C:電磁學     | 0 | 0 | 0   | 0   | 0   | (4) | 0  |  |
|         |          | AP美國歷史(下)     | 0 | 0 | 0   | (4) | 0   | (4) | 0  |  |
|         |          | AP美國歷史(上)     | 0 | 0 | (4) | 0   | (4) | 0   | 0  |  |
|         | 職涯試探     | 藝術鑑賞(上)       | 0 | 0 | 0   | 0   | (3) | 0   | 0  |  |
|         |          | 觀光餐旅業導論(下)    | 0 | 0 | 0   | (3) | 0   | (3) | 0  |  |
|         |          | 觀光餐旅業導論(上)    | 0 | 0 | (3) | 0   | (3) | 0   | 0  |  |
|         |          | 國際商業概論(上)     | 0 | 0 | 0   | 0   | (3) | 0   | 0  |  |
|         |          | 媒體研究(下)       | 0 | 0 | 0   | (3) | 0   | (3) | 0  |  |
|         |          | 心理學(上)        | 0 | 0 | (3) | 0   | (3) | 0   | 0  |  |
|         |          | 行銷：零售與服務產業(下) | 0 | 0 | 0   | (3) | 0   | 0   | 0  |  |
|         |          | 美國憲法          | 0 | 0 | 0   | 0   | 0   | 3   | 3  |  |
|         |          | 音樂創作與作詞       | 0 | 0 | 0   | 0   | 0   | (2) | 0  |  |
|         |          | 財務金融入門        | 0 | 0 | (3) | 0   | (3) | 0   | 0  |  |
|         |          | 財務會計原則(下)     | 0 | 0 | 0   | (3) | 0   | (3) | 0  |  |
|         |          | 升學輔導          | 0 | 0 | 0   | 0   | 2   | (1) | 2  |  |
|         |          | 心理學(下)        | 0 | 0 | 0   | (3) | 0   | (3) | 0  |  |
|         |          | 商業溝通與科技(上)    | 0 | 0 | 0   | 0   | (3) | 0   | 0  |  |
|         |          | 商業領導管理概論(下)   | 0 | 0 | 0   | 0   | 0   | (3) | 0  |  |
|         |          | 商業領導管理概論(上)   | 0 | 0 | 0   | 0   | (3) | 0   | 0  |  |
|         |          | 國際商業概論(下)     | 0 | 0 | 0   | 0   | 0   | (3) | 0  |  |
|         |          | 行銷：零售與服務產業(上) | 0 | 0 | (3) | 0   | 0   | 0   | 0  |  |
|         |          | 金融行銷入門        | 0 | 0 | 0   | (3) | 0   | (3) | 0  |  |
|         |          | 媒體研究(上)       | 0 | 0 | (3) | 0   | (3) | 0   | 0  |  |
|         |          | 經濟學Honors     | 0 | 0 | 0   | 0   | (3) | 0   | 0  |  |
|         |          | 藝術史           | 0 | 0 | 0   | 0   | 2   | 0   | 2  |  |
|         |          | 藝術鑑賞(下)       | 0 | 0 | 0   | 0   | 0   | (3) | 0  |  |
|         |          | 財務會計原則(上)     | 0 | 0 | (3) | 0   | (3) | 0   | 0  |  |
|         |          | 商業溝通與科技(下)    | 0 | 0 | 0   | 0   | 0   | (3) | 0  |  |
|         | 跨領域/科目統整 | 大數據分析(下)      | 0 | 0 | 0   | 0   | 0   | (3) | 0  |  |
|         |          | 大數據分析(上)      | 0 | 0 | 0   | 0   | (3) | 0   | 0  |  |
| 選修學分數總計 |          |               | 2 | 2 | 6   | 6   | 21  | 23  | 60 |  |



|          |    |    |    |    |    |    |     |  |
|----------|----|----|----|----|----|----|-----|--|
| 必選修學分數總計 | 31 | 31 | 30 | 30 | 30 | 30 | 182 |  |
| 每週節數總計   | 35 | 35 | 35 | 35 | 35 | 35 | 210 |  |

【備查版】

【備查版】

## 柒、課程及教學規劃表

### 一、探究與實作課程

#### (一)自然科學探究與實作課程

|       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                       |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱： | 中文名稱：自然科學探究與實作課程A                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                       |
|       | 英文名稱：Natural Sciences: Inquiry and Practice A                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                       |
| 授課年段： | 二上、二下                                                                                                                                                                                                                                                                                                                         | 學分總數：2                                                                                                                                                                                                |
| 課程屬性： | 改變與穩定、科學與生活                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                       |
| 師資來源： | 跨科目：物理、地球科學                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                       |
|       | 跨科協同                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                       |
| 學習目標： | <p>(一) 藉由物理力學及地震學兩大主題為主軸，讓學生可經由「物理、地球科學」兩大領域視野，對於自然科學有更深入的了解。</p> <p>(二) 藉由PBL(問題導向學習法)，培養學生科學思考的能力，目標有：(1)利用生活經驗或實境案例引導學生提出問題(2)學生能經由閱讀與資料搜尋，並能夠彙整資訊(3)將概念連結實作，讓學生能夠設計解決問題的方法，培養實驗技巧(4)導入分析技術，將所得到的實驗結果做統整、分析。</p> <p>(三) 經由學生實作過程，讓學生融入課程，並手動改變模組設計，並和理論作協同的溝通，並上台報告數據及分析方法</p> <p>(四) 經由小組合作與討論、表達與分享達到同儕互相學習，激發學生創造力。</p> |                                                                                                                                                                                                       |
| 教學大綱： | 單元/主題                                                                                                                                                                                                                                                                                                                         | 內容綱要                                                                                                                                                                                                  |
|       | 一 導論                                                                                                                                                                                                                                                                                                                          | 教學內容、上課方式、評分標準、分組、科學概念介紹                                                                                                                                                                              |
|       | 二 引導式探究(guided inquiry) 震有遲(一)                                                                                                                                                                                                                                                                                                | <p>【發現問題-觀察現象】</p> <p>播放紀錄片(921地震)片段內容，讓學生提出所看到的現象。</p> <p>【發現問題-蒐集資料】</p> <p>讓學生討論與觀察:當地震發生時，怎樣的房屋結構比較穩固，不易倒塌?</p> <p>【發現問題-形成或訂定問題】</p> <p>根據學生所討論及觀察到的現象，整合出什麼樣的房屋架構耐震度比較好?</p> <p>並建構出可驗證的觀點。</p> |
|       | 三 引導式探究(guided inquiry) 震有遲(二)                                                                                                                                                                                                                                                                                                | <p>【規畫與研究-尋找變因或條件】</p> <p>學生經過上述討論後，請學生確認在接下來的實驗過程中的 控制變因及操縱變因。</p> <p>【規畫與研究-擬定研究計畫】</p> <p>依各組所列出的操縱變因，來規劃適當實驗方法與流程，並以流程圖的方式繪製在學習單上；繪製內容需包含在實驗中建造房屋模型所需要的木條數、樓層數、底板大小、橡皮筋條數、砝碼重量、A4紙。</p>           |
|       | 四 引導式探究(guided inquiry) 震有遲(三)                                                                                                                                                                                                                                                                                                | <p>【規畫與研究-收集資料數據】</p> <p>1. 請學生依據之前所規劃的實驗步驟，進行耐震房屋建造。</p> <p>2. 並於建造完成後，將房屋模型放於搖搖機台上進行耐震實驗操作(放置前需先記錄房屋模型的重量)，在模型樓層加載砝碼及A4紙。</p> <p>3. 以各種不同震度進行測試，震幅由小逐漸加大，直到房屋模型崩塌為止，記錄實驗操作過程中的各項實驗數據。</p>           |
|       | 五 引導式探究(guided inquiry) 震有遲(四)                                                                                                                                                                                                                                                                                                | <p>【論證與建模-分析資料與呈現數據】</p> <p>1. 學生能練習使用資訊與數學等方法，有效整理資料數據，進而轉換成合適圖表。</p> <p>2. 學生能依據物理及地球科學的背景知識由圖表中分析、討論出變因(木條數、樓層數、底板大</p>                                                                            |

|    |                                      |                                                                                                                                   |
|----|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|    |                                      | 小、橡皮筋條數、砝碼重量…)如何影響結果(房屋倒塌時間的長短……)。                                                                                                |
| 六  | 引導式探究 (guided inquiry) 震<br>震有遲(五)   | 【論證與建模-解釋與推理】<br>依據上述資料與數據分析的結果，學生能夠合理推論出何種房屋模型耐震度最佳。                                                                             |
| 七  | 引導式探究 (guided inquiry) 震<br>震有遲(六)   | 【表達與分享-表達與溝通】<br>請各組學生依據組別順序，依序上台以適當的口語、文字、圖像、影音或實物等表達方式發表自己組別的探究過程與實驗結果，並聽取其他組別的探究過程與實驗結果。                                       |
| 八  | 結構式探究 (structured inquiry) 平面駐波現象的觀察 | 【發現問題-觀察和假說】<br>1. 複習物理實驗中應觀察的重點：結構、行為、物理概念。<br>2. 觀察水波槽駐波的現象，找尋有趣的物理現象，並提出問題與假說。<br>3. 以老師提供的問題為例，說明應如何觀察，並量化說明物理現象。             |
| 九  | 引導式探究 (guided inquiry) 雙<br>狹縫繞射實驗   | 【規劃與研究-進行實驗並獲取數據】<br>【論證與建模-解釋與推理】<br>1. 提供可探究的實驗問題：雙狹縫干涉實驗。<br>2. 尋找繞射圖案(亮紋間距)與各項操縱變因間的量化關係，學生應利用其量測的數據進行量化說明。                   |
| 十  | 開放式探究 (open-inquiry) 主題<br>式探究(一)    | 進行期末報告分組，並提供範本試題集讓學生參考。<br>【發現問題-觀察現象並提出假說】<br>1. 以波動為主題，讓學生根據此物理原理尋找相關現象，觀察後，提出現象觀察，並提出欲探討的問題。<br>2. 學生探討的問題為：操縱變因與應變變因之間的關係是甚麼？ |
| 十一 | 開放式探究 (open-inquiry) 主題<br>式探究(二)    | 【規劃與研究-擬定研究計畫】<br>1. 第一次試做實驗，觀察物理量之間應有何種變化趨勢。<br>2. 設計實驗裝置，裝置包含控制變因、實驗步驟、量測方法與實驗裝置+量測儀器簡圖。<br>3. 製作研究計畫投影片，向全班說明實驗規劃。             |
| 十二 | 開放式探究 (open-inquiry) 主題<br>式探究(三)    | 【表達與分享】<br>1. 分享上週的實驗規劃投影片，同學與老師給予回饋與改進建議。<br>【規畫與研究-收集資料數據】<br>1. 依據修改後的實驗裝置，開始進行實驗並獲取數據。                                        |
| 十三 | 開放式探究 (open-inquiry) 主題<br>式探究(四)    | 【論證與建模-分析資料與呈現數據】<br>1. 學生使用tracker、imagej、audacity等軟體，將實驗數據量化後，以excel、ggb將實驗數據製作成圖表。                                             |
| 十四 | 開放式探究 (open-inquiry) 主題<br>式探究(五)    | 【論證與建模-解釋與推理】<br>1. 學生透過資料查找、文獻閱讀，將實驗數據的物理意義說明，並解釋其中偏差的來源可能為何。<br>2. 製作實驗結果投影片，包含：現象影音檔、研究問題、實驗裝置、實驗數據圖表、物理原理與解釋數據、結果與偏差討論。       |
| 十五 | 開放式探究 (open-inquiry) 主題<br>式探究(六)    | 【表達與分享-表達與溝通】<br>安排各組對研究計畫之執行成果進行輪流報告，老師對各組報告的實驗細節進行提問，以期增進學生之溝通表達能力                                                              |

|       |                                                                                                                           |                             |                                                                                                                                                                    |
|-------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                                                                                                           |                             | 【表達與分享-評價與省思】<br>並以互評表單機制邀請學生互相觀摩，並對各自主題提出具體建議及評語。                                                                                                                 |
|       | 十六                                                                                                                        | 開放式探究（open-inquiry）主題式探究(七) | 【綜合能力訓練】<br>1. 說明科學小論文的六大架構：前言、文獻探討、研究方法、研究結果與討論、結論與未來展望、參考文獻，以及六大架構內應具備的內容<br>2. 根據同學與老師的回饋，學生針對實驗現象不足以說明清楚的部分，補充實驗設計與數據。<br>3. 結合新舊數據，完成完整版的實驗結果投影片，並製作成紙本科學小論文。 |
|       | 十七                                                                                                                        | 開放式探究（open-inquiry）主題式探究(八) | 【表達與分享-表達與溝通】<br>1. 各組根據修改後的紙本科學小論文上台報告。                                                                                                                           |
|       | 十八                                                                                                                        | 期末題庫班                       | 【綜合能力訓練】<br>1. 老師以歷屆試題，進行探究與實作的試題分析，並藉此複習探究與實作的四大能力。<br>2. 各組分配試題，解答完題目後，上台講解給他組同學。                                                                                |
|       | 十九                                                                                                                        |                             |                                                                                                                                                                    |
|       | 二十                                                                                                                        |                             |                                                                                                                                                                    |
|       | 二十一                                                                                                                       |                             |                                                                                                                                                                    |
|       | 二十二                                                                                                                       |                             |                                                                                                                                                                    |
| 學習評量： | 1. 基本知識的紙筆測驗(包含物理、地球科學概念)：10%<br>2. 實驗過程的態度(問題發想、實驗設計操作)：30%<br>3. 各主題小組報告(實驗數據整理、實驗口頭報告)：40%<br>4. 期末心得報告(包含互評表、自評表)：20% |                             |                                                                                                                                                                    |
| 備註：   |                                                                                                                           |                             |                                                                                                                                                                    |

|       |                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱： | 中文名稱： 自然科學探究與實作課程B                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                             |
|       | 英文名稱： Natural Sciences: Inquiry and Practice B                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                             |
| 授課年段： | 二上、二下                                                                                                                                                                                                                                                                                                                                                      | 學分總數： 2                                                                                                                                                                                                                                                                                                                     |
| 課程屬性： | 改變與穩定、科學與生活                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                             |
| 師資來源： | 跨科目： 化學、生物                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                             |
|       | 跨科協同                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                             |
| 學習目標： | <p>1. 藉由「植物世界面面觀」為主軸，設計一個引導式探究及兩個開放式探究，讓學生可由化學、生物兩大領域視野，對於自然科學有更深入的了解，並與生活情境結合，了解到科學與生活之間是息息相關的。</p> <p>2. 經由探究式教學模式，培養學生對於科學能夠採取多面向的思考。包括：</p> <p>(1)發現問題：學生能主動或經由引導提出問題。</p> <p>(2)規劃研究：設計解決問題方法、設計實驗步驟，包括操作變因、控制變因等。經由學生實作過程，讓學生真正融入真實課程內容，真正落實理論與實際並用。</p> <p>(3)論證建模：能根據數據進行分析與推論，並能提出結論、建立模型。</p> <p>(4)表達分享：經由彼此合作、表達與分享達到同儕互相學習，激發學生創造力、回饋及反思。</p> |                                                                                                                                                                                                                                                                                                                             |
| 教學大綱： |                                                                                                                                                                                                                                                                                                                                                            | 單元/主題                                                                                                                                                                                                                                                                                                                       |
|       | 一                                                                                                                                                                                                                                                                                                                                                          | <p>引導式探究 (guided inquiry) 天然植物色素的神奇魔法-多彩的的植物色素(一)</p> <p>【發現問題-觀察現象】<br/>準備各式不同顏色的蔬果，請學生歸納出有哪些顏色。</p> <p>【發現問題-蒐集資料】<br/>請學生討論蔬果組織細胞中存在哪些物質，才會呈現多樣化的顏色。這些物質存在於細胞的何處，若想要取得這些物質，可能需要的步驟有哪些。</p> <p>【發現問題-形成或訂定問題】<br/>讓學生根據之前的討論，整合出天然物質中是哪些成分會在不同條件下呈現不一樣的顏色，以及這些物質的特性。</p>                                                  |
|       | 二                                                                                                                                                                                                                                                                                                                                                          | <p>引導式探究 (guided inquiry) 天然植物色素的神奇魔法-多彩的的植物色素(二)</p> <p>【規畫與研究-尋找變因或條件】<br/>老師於課堂上展示漸層飲料。請學生思考製作一個具備多種顏色的彩色分層水，需要注意什麼？由上面的討論後，請學生確認在接下來的實驗過程中的控制變因、操縱變因。</p> <p>【規畫與研究-擬定研究計畫】<br/>學生於漸層飲料的示範中可能歸納出密度與溫度會影響分層，因此請學生構思，如何以植化素取代人工色素，製作出一杯分層飲料。依各組所列出的操縱變因，來規劃適當實驗方法與流程，並以圖示流程圖的方式繪製在學習單上。</p> <p>需含兩個實驗步驟：一、萃取。二、彩色分層水。</p> |
|       | 三                                                                                                                                                                                                                                                                                                                                                          | <p>引導式探究 (guided inquiry) 天然植物色素的神奇魔法-多彩的的植物色素(三)</p> <p>【規畫與研究-收集資料數據】<br/>請學生依據之前所規劃的實驗步驟，進行實驗操作。並記錄其操作過程中的實驗數據。</p>                                                                                                                                                                                                      |
|       | 四                                                                                                                                                                                                                                                                                                                                                          | <p>引導式探究 (guided inquiry) 天然植物色素的神奇魔法-多彩的的植物色素(四)</p> <p>【表達與分享-表達與溝通】<br/>請學生上台發表他們所設計的實驗流程圖。(包含要萃取的天然物質、實驗器材、實驗步驟簡述)</p>                                                                                                                                                                                                  |
|       | 五                                                                                                                                                                                                                                                                                                                                                          | <p>開放式探究 (open-inquiry) 天然植物色素的神奇魔法-多彩的的植物色素的延伸探討(一)</p> <p>【發現問題-蒐集資訊、提出可驗證的觀點】<br/>請學生思考依據天然植物色素的特性，可以依其特質再做何項延伸探討。</p>                                                                                                                                                                                                   |
|       | 六                                                                                                                                                                                                                                                                                                                                                          | <p>開放式探究 (open-inquiry) 天然植物色素的神奇魔法-多彩的的植物色素</p> <p>【規畫與研究-擬定研究計畫】<br/>依各組所擬訂的主題列出需要準備什麼材料？依</p>                                                                                                                                                                                                                            |



|    |                                                  |                                                                                                                                                                                                                           |
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|    | 素的延伸探討(二)                                        | 各組所列出的材料，來規劃適當的製作流程，並以圖示流程圖的方式繪製在學習單上。                                                                                                                                                                                    |
| 七  | 開放式探究 (open-inquiry) 天然植物色素的神奇魔法-多彩的的植化素的延伸探討(三) | <b>【規畫與研究-收集資料數據】</b><br>請學生依據之前所規劃的材料，進行天然植物色素相關的延伸實驗。並記錄其操作過程中的材料種類跟分量，並作數據的紀錄。                                                                                                                                         |
| 八  | 開放式探究 (open-inquiry) 天然植物色素的神奇魔法-多彩的的植化素的延伸探討(四) | <b>【規畫與研究-收集資料數據】</b><br>1. 針對上周所做的實驗做討論，調整實驗步驟，並進行修正實驗。<br>2. 設計有系統的記錄格式。<br>3. 收集數據資料和拍照。                                                                                                                               |
| 九  | 開放式探究 (open-inquiry) 天然植物色素的神奇魔法-多彩的的植化素的延伸探討(五) | <b>【論證與建模-分析資料與呈現數據】</b><br>(1) 學生能練習使用資訊與數學等方法，有效整理資料數據，轉換成圖表。<br>(2) 學生能依據圖表討論出變因(酸鹼、不同金屬種類、植物來源…)如何影響結果(抗氧化能力、顏色變化…)。                                                                                                  |
| 十  | 開放式探究 (open-inquiry) 天然植物色素的神奇魔法-多彩的的植化素的延伸探討(六) | <b>【表達與分享-表達與溝通】</b><br>1. 學生上台發表他們所設計的天然植物色素相關性質延伸實驗。<br>2. 學生能合理推論實驗相關理論，並將研究內容彙整成實驗報告。                                                                                                                                 |
| 十一 | 引導式探究 (guided inquiry) 你融我融-天然清潔劑的去汙能力(一)        | <b>【發現問題-觀察現象】</b><br>請學生閱讀”洗碗精真的天然？8小物讓清水能去油”出處：康健雜誌。<br><a href="https://forms.gle/aKYpoTuwsJ95Fv3UA">https://forms.gle/aKYpoTuwsJ95Fv3UA</a> 。提出觀察到的細節。<br><b>【發現問題-搜查資料】</b><br>請學生討論清潔劑的去汙原理，包含表面張力、乳化作用、分散作用、可溶化作用。 |
| 十二 | 引導式探究 (guided inquiry) 你融我融-天然清潔劑的去汙能力(二)        | <b>【發現問題-形成或訂定問題】</b><br>讓學生根據之前的討論，整合出界面活性劑的種類與特性，並探討出天然清潔劑的去汙能力。                                                                                                                                                        |
| 十三 | 開放式探究 (open-inquiry) 你融我融-天然清潔劑的去汙能力檢測(一)        | <b>【規畫與研究-尋找變因或條件】</b><br>請學生討論日常生活中和清潔劑的去汙效果相關的概念有哪些？由上面的討論後，請學生確認在接下來的實驗過程中的控制變因、操縱變因。<br><b>【規畫與研究-擬定研究計畫】</b><br>請學生將各組討論的想法做成摘要，並提出可驗證的問題。依各組所列出的操縱變因，來規劃適當實驗方法與流程，並以圖示流程圖的方式繪製在學習單上。                                |
| 十四 | 開放式探究 (open-inquiry) 你融我融-天然清潔劑的去汙能力檢測(二)        | <b>【規畫與研究-收集資料數據】</b><br>請學生依據之前所規劃的材料，進行實驗操作。                                                                                                                                                                            |
| 十五 | 開放式探究 (open-inquiry) 你融我融-天然清潔劑的去汙能力檢測(三)        | <b>【規畫與研究-收集資料數據】</b><br>調整上周所做的實驗流程，明確的定義實驗中所要擬定的操縱變因，以及修正上週實驗步驟，進行實驗操作。                                                                                                                                                 |
| 十六 | 開放式探究 (open-inquiry) 你融我融-天然清潔劑的去汙能力檢測(四)        | <b>【論證與建模-分析資料、呈現數據】</b><br>(1) 學生能練習使用資訊與數學等方法，有效整理資料數據，轉換成圖表。<br>(2) 學生能依據圖表討論出變因(精油種類、精油濃度…)如何影響結果。                                                                                                                    |
| 十七 | 開放式探究 (open-inquiry) 你融我融-天然清潔劑的去汙能力檢測(五)        | <b>【論證與建模-提出結論】</b><br>學生能依據所有的數據結果，整理出完整的實驗流程以及實驗結論。                                                                                                                                                                     |



|       |                                                                                                                                           |                                            |                                                          |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------|
|       | 十八                                                                                                                                        | 開放式探究 (open-inquiry) 你融我融-天然清潔劑的去汙能力檢測 (六) | 【表達與分享-表達與溝通】<br>請所有組別上台繪製海報，做探究實作成果發表。各自以不同的變因來探討的清潔效果。 |
|       | 十九                                                                                                                                        |                                            |                                                          |
|       | 二十                                                                                                                                        |                                            |                                                          |
|       | 二十一                                                                                                                                       |                                            |                                                          |
|       | 二十二                                                                                                                                       |                                            |                                                          |
| 學習評量： | 1. 學習單的撰寫(包含化學、生物)：20%<br>2. 學習態度(依據課堂多元評量紀錄：參與、討論、聽講、提問)：20%<br>3. 各主題小組報告(實驗數據整理、實驗紙本報告)：20%<br>4. 分組口頭報告(包含互評表、自評表)：20%<br>5. 紙筆測驗：20% |                                            |                                                          |
| 備註：   |                                                                                                                                           |                                            |                                                          |

(二)社會領域加深加廣選修探究與實作課程

|       |                                                                                                                                                                                                                                                                           |                                                                              |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 課程名稱： | 中文名稱：探究與實作：公共議題與社會探究                                                                                                                                                                                                                                                      |                                                                              |
|       | 英文名稱：Inquiry and Practice: Public Issues and Social Inquiry                                                                                                                                                                                                               |                                                                              |
| 授課年段： | 二上                                                                                                                                                                                                                                                                        | 學分總數：2                                                                       |
| 課程屬性： | 專題探究                                                                                                                                                                                                                                                                      |                                                                              |
| 師資來源： | 校內單科                                                                                                                                                                                                                                                                      |                                                                              |
| 學習目標： | <p>1. 瞭解聯合國17項永續發展目標SDGs及目標8「良好工作及經濟成長」之理念與價值，並透過本探究歷程與實作活動中深入探討相關議題。</p> <p>2. 藉由永續發展目標中的爭議事件，學習議題之問題界定、蒐集資訊與分析詮釋，進而能提出自我觀點，並透過同儕分享發現多元觀點，學習聆聽與尊重。</p> <p>3. 期許本課程能培養學生覺察日常生活中潛在公共議題之敏銳度，經由深入的探究實際操作，培養解決社會生活問題或議題的公民素養。</p> <p>4. 提供社會科學領域的延伸學習，兼顧學群探索，並銜接大學學習生涯準備。</p> |                                                                              |
| 教學大綱： | 週次/序                                                                                                                                                                                                                                                                      | 單元/主題                                                                        |
|       | 一                                                                                                                                                                                                                                                                         | 課程介紹與導論                                                                      |
|       | 二                                                                                                                                                                                                                                                                         | 探究萬花筒(1)－聯合國永續發展目標                                                           |
|       | 三                                                                                                                                                                                                                                                                         | 探究萬花筒(2)－聯合國永續發展目標                                                           |
|       | 四                                                                                                                                                                                                                                                                         | 學生發展問題意識(1)                                                                  |
|       | 五                                                                                                                                                                                                                                                                         | 學生發展問題意識(2)                                                                  |
|       | 六                                                                                                                                                                                                                                                                         | 探究議題擬定與分享                                                                    |
|       | 七                                                                                                                                                                                                                                                                         | 觀察與蒐集資料(1)                                                                   |
|       | 八                                                                                                                                                                                                                                                                         | 觀察與蒐集資料(2)                                                                   |
|       | 九                                                                                                                                                                                                                                                                         | 蒐集與統整資料                                                                      |
|       | 十                                                                                                                                                                                                                                                                         | 回饋與思考                                                                        |
|       | 十一                                                                                                                                                                                                                                                                        | 分析與詮釋資料(1)                                                                   |
|       | 十二                                                                                                                                                                                                                                                                        | 分析與詮釋資料(2)                                                                   |
|       | 十三                                                                                                                                                                                                                                                                        | 分析與詮釋資料(3)                                                                   |
|       | 十四                                                                                                                                                                                                                                                                        | 統整與歸納資料(1)                                                                   |
|       |                                                                                                                                                                                                                                                                           | 內容綱要                                                                         |
|       |                                                                                                                                                                                                                                                                           | 課程內容與規範、探究與實作案例介紹。                                                           |
|       |                                                                                                                                                                                                                                                                           | 說明與初探聯合國17項永續發展目標及目標8「良好工作及經濟成長」之理念。                                         |
|       |                                                                                                                                                                                                                                                                           | 說明聯合國永續發展目標及目標8「良好工作及經濟成長」議題探究的示範與操作（以國際童工為例）。                               |
|       |                                                                                                                                                                                                                                                                           | 閱讀「良好工作及經濟成長」議題指定文本，並練習文本摘要、層次重劃與歸納統整。                                       |
|       |                                                                                                                                                                                                                                                                           | 閱讀「良好工作及經濟成長」議題指定文本，練習反思文本，進而學習提出問題、界定問題。                                    |
|       |                                                                                                                                                                                                                                                                           | 讓學生以口頭報告方式，分享探究議題及其架構。師生相互回饋，並給予探究主題的建議。                                     |
|       |                                                                                                                                                                                                                                                                           | 介紹蒐集資料的工具與操作方式（如期刊論文搜尋網站），並線上同步實作，學生能依循教師示範步驟搜尋資料。                           |
|       |                                                                                                                                                                                                                                                                           | 介紹蒐集資料的工具與操作方式（如國內外官方統計數據資料庫等），並線上同步實作，學生能依循教師示範步驟搜尋資料。                      |
|       |                                                                                                                                                                                                                                                                           | 統整學生所發想的議題探究資料，並以口頭報告分享，各組進行組間評論、提問回饋與建議等。                                   |
|       |                                                                                                                                                                                                                                                                           | 針對議題案就之研究計畫檢核，並提供具體建議。                                                       |
|       |                                                                                                                                                                                                                                                                           | 1. 說明分析、詮釋資料的方法，瞭解資料中贊成與反對的主要論述理由與論點。<br>2. 說明評價資料的方法，學習如何檢驗、檢核或思辨其相關論述之合理性。 |
|       |                                                                                                                                                                                                                                                                           | 實作：書面期末探究方案的撰寫<br>1. 探究議題背景與動機<br>2. 探究主題的內涵與影響<br>3. 探究主題的工具與方法             |
|       |                                                                                                                                                                                                                                                                           | 實作：書面期末探究方案的撰寫<br>4. 數據資料的詮釋與論證<br>5. 期刊文獻的詮釋與論證<br>6. 檢驗資料合理性，並提出自我觀點       |
|       |                                                                                                                                                                                                                                                                           | 實作：學生將書面期末探究方案成果以任一載體製作、編輯與呈現（例如海報、ppt、padlet、prezi、canva等）。                 |

|       |                                                                                           |                  |                                                                                |
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|       | 十五                                                                                        | 統整與歸納資料(2)       | 實作：學生將書面期末探究方案成果以任一載體製作、編輯與呈現（例如海報、ppt、padlet、prezi、canva等）。                   |
|       | 十六                                                                                        | 探究實作方案成果報告與分享(1) | 期末探究方案成果：<br>1. 以各小組擅長之方式呈現紙本探究成果，輔以口頭上台報告說明。<br>2. 針對各組成果，進行師生回饋與建議、組間組內互評提問。 |
|       | 十七                                                                                        | 探究實作方案成果報告與分享(2) | 期末探究方案成果：<br>1. 以各小組擅長之方式呈現紙本探究成果，輔以口頭上台報告說明。<br>2. 針對各組成果，進行師生回饋與建議、組間組內互評提問。 |
|       | 十八                                                                                        | 統整與反思            | 師生統整回饋與建議。                                                                     |
|       | 十九                                                                                        |                  |                                                                                |
|       | 二十                                                                                        |                  |                                                                                |
|       | 二十一                                                                                       |                  |                                                                                |
|       | 二十二                                                                                       |                  |                                                                                |
| 學習評量： | 1. 平時學習成績40%（含課程學習單、課堂發言與討論）<br>2. 期中檢核10%<br>3. 期末探究成果方案報告50%（含書面紙本報告、口頭報告、小組成果展示、小組回饋單） |                  |                                                                                |
| 備註：   |                                                                                           |                  |                                                                                |

|       |                                                                                                                                                                                |                                                                                               |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 課程名稱： | 中文名稱：探究與實作：地理與人文社會科學研究                                                                                                                                                         |                                                                                               |
|       | 英文名稱：Inquiry and Practice: Geographic Perspectives in the Humanities and Social Sciences                                                                                       |                                                                                               |
| 授課年段： | 二下                                                                                                                                                                             | 學分總數：2                                                                                        |
| 課程屬性： | 專題探究                                                                                                                                                                           |                                                                                               |
| 師資來源： | 校內單科                                                                                                                                                                           |                                                                                               |
| 學習目標： | 1. 學生能對生活周遭各種相關議題，具備探索、思考、推理、分析與統整的能力，並能提出解決各種問題的可能策略。<br>2. 藉由探究學校所在地文山區的移民與區域發展(地Mb-V-1)，以及地方文化與觀光產業的發展(地Md-V-2)，使學生能關懷鄉土環境的特色與變化。<br>3. 透過探究實作的操作，培養學生溝通互動的素養，進而合作學習解決地理問題。 |                                                                                               |
| 教學大綱： | 週次/序                                                                                                                                                                           | 單元/主題                                                                                         |
|       | 一                                                                                                                                                                              | 課程介紹與說明                                                                                       |
|       | 二                                                                                                                                                                              | 移民與區域發展                                                                                       |
|       | 三                                                                                                                                                                              | 移民與區域發展                                                                                       |
|       | 四                                                                                                                                                                              | 移民與區域發展                                                                                       |
|       | 五                                                                                                                                                                              | 地方文化與觀光產業發展                                                                                   |
|       | 六                                                                                                                                                                              | 地方文化與觀光產業發展                                                                                   |
|       | 七                                                                                                                                                                              | 地方文化與觀光產業發展                                                                                   |
|       | 八                                                                                                                                                                              | 地方文化與觀光產業發展                                                                                   |
|       | 九                                                                                                                                                                              | 地方文化與觀光產業發展                                                                                   |
|       | 十                                                                                                                                                                              | 地理資料蒐整與分析(1)                                                                                  |
|       | 十一                                                                                                                                                                             | 地理資料蒐整與分析(2)                                                                                  |
|       | 十二                                                                                                                                                                             | 地理資料蒐整與分析(3)                                                                                  |
|       | 十三                                                                                                                                                                             | 地理資料蒐整與分析(4)                                                                                  |
|       | 十四                                                                                                                                                                             | Story Map製作                                                                                   |
|       | 十五                                                                                                                                                                             | Story Map製作                                                                                   |
|       |                                                                                                                                                                                | 內容綱要                                                                                          |
|       |                                                                                                                                                                                | 1. 了解課程進行方式及進度、評分方式，教師範例演示。<br>2. 說明學校所在地文山區自然與人文環境的特點，讓學生思考當地有哪些地方文化特色與可發展的觀光產業特色。           |
|       |                                                                                                                                                                                | 藉由文山公民會館的參訪，讓學生了解文山區的文化歷史與區域發展關係，進而請各組學生找出有興趣的地理問題。                                           |
|       |                                                                                                                                                                                | 1. 各組根據有興趣的主題選擇研究地區。<br>2. 蒐集分析文山地區的歷史變遷與發展的文獻資料。<br>3. 各組利用台灣百年歷史地圖網站，比較研究區內不同時期聚落空間發展與變遷。   |
|       |                                                                                                                                                                                | 小組報告：<br>各組上台報告研究區的歷史文化與區域發展變遷。                                                               |
|       |                                                                                                                                                                                | 田野踏查：貓空社區坡地農業觀光社區特色解說導覽                                                                       |
|       |                                                                                                                                                                                | 各組利用網路與圖書館資源尋找地方文化與觀光產業發展的研究案例，整理介紹其研究流程與發展特色。                                                |
|       |                                                                                                                                                                                | 小組報告：<br>分組分析、解釋蒐集到的文獻資料，並分享文獻閱讀心得。                                                           |
|       |                                                                                                                                                                                | 1. 各組確認研究議題、以及研究區的實查範圍。<br>2. 利用google map規劃實查路線。                                             |
|       |                                                                                                                                                                                | 問卷訪談調查準備：<br>1. 問卷訪談設計注意事項 說明。<br>2. google表單設計說明與操作。<br>3. 分組討論並針對地方文化與觀光產業發展研究主題製作地理問卷訪談題目。 |
|       |                                                                                                                                                                                | Story Map介紹、製作教學與操作練習                                                                         |
|       |                                                                                                                                                                                | 1. 說明如何製作統計圖表。<br>2. 各組將蒐集到的一手資料利用Excel繪製統計圖表。                                                |
|       |                                                                                                                                                                                | 分組報告問卷調查結果(統計圖表，訪談整理)。                                                                        |
|       |                                                                                                                                                                                | 1. 說明如何製作統計地圖。<br>2. 各分組蒐集研究去相關資料製作統計地圖。                                                      |
|       |                                                                                                                                                                                | 分組製作Story Map                                                                                 |
|       |                                                                                                                                                                                | 分組製作Story Map                                                                                 |

|       |                                                                                                                                 |             |               |
|-------|---------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|
|       | 十六                                                                                                                              | Story Map製作 | 分組製作Story Map |
|       | 十七                                                                                                                              | 成果發表        | 分組報告成果與互評回饋   |
|       | 十八                                                                                                                              | 成果發表        | 分組報告成果與互評回饋   |
|       | 十九                                                                                                                              |             |               |
|       | 二十                                                                                                                              |             |               |
|       | 二十一                                                                                                                             |             |               |
|       | 二十二                                                                                                                             |             |               |
|       |                                                                                                                                 |             |               |
| 學習評量： | 1. 學習態度(分組合作參與、發言、討論) 30%<br>2. 文獻整理報告 10%<br>3. 問卷 10%<br>4. 訪談大綱 10%<br>5. 資料整理分析 10%<br>6. 小組自評與互評 10%<br>7. Story Map製作 20% |             |               |
| 備註：   |                                                                                                                                 |             |               |

|       |                                                                                                                                                                                     |                    |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 課程名稱： | 中文名稱：探究與實作：歷史學探究                                                                                                                                                                    |                    |
|       | 英文名稱：Inquiry and Practice: Historical Inquiry                                                                                                                                       |                    |
| 授課年段： | 二下                                                                                                                                                                                  | 學分總數：2             |
| 課程屬性： | 專題探究                                                                                                                                                                                |                    |
| 師資來源： | 校內單科                                                                                                                                                                                |                    |
| 學習目標： | 1. 了解歷史學的學科特色。<br>2. 熟悉歷史學研究法與跨學門科整合研究的相關理論。<br>3. 具備資料蒐集、解讀與分析文獻、詮釋的能力及寫作的方法與技巧。<br>4. 能活用歷史學研究方法於期末歷史專題研究與寫作於撰述的報告中。<br>5. 普高歷史修課依時序選擇基本課題設計主題，透過歷史資料的閱讀和分析，培養學習者發現、認識及解決問題的基本素養。 |                    |
| 教學大綱： | 週次/<br>序                                                                                                                                                                            | 單元/主題              |
|       | 一                                                                                                                                                                                   | 課程介紹 歷史、史料與史實      |
|       | 二                                                                                                                                                                                   | 歷史、史料與史實           |
|       | 三                                                                                                                                                                                   | 歷史、史料與史實           |
|       | 四                                                                                                                                                                                   | 歷史、史料與史實           |
|       | 五                                                                                                                                                                                   | 歷史、史料與史實           |
|       | 六                                                                                                                                                                                   | 學習重點複習與檢視          |
|       | 七                                                                                                                                                                                   | 歷史著作與歷史寫作          |
|       | 八                                                                                                                                                                                   | 歷史著作與歷史寫作 論文寫作格式介紹 |
|       | 九                                                                                                                                                                                   | 歷史著作與歷史寫作          |
|       |                                                                                                                                                                                     |                    |

內容綱要

為什麼學歷史？

1. 請學生談談對文明、文化的初步認識？如何定義？
2. 導入為何要學歷史

什麼是史料？

1. 以歷史學中的文明、文化資料、評論、報導、影片紀錄等當作例子，說明什麼是史料？

什麼是史料？

1. 舉世界各大文明、文化中的資料、評論、報導、影片紀錄等當作例子，說明什麼是史料？

歷史事實如何建構？從文章導讀中讓學生可以瞭解與分析

1. 何為歷史事實？
2. 歷史如何被建構？

歷史事實如何建構？

1. 世界的文明如何交會，探討歷史事實如何

以節錄一段文本、影片，分組討論與分析引導學生發現問題

1. 主題應該具有一定的歷史背景和潛在的問題，
2. 明確界定他們想要研究的問題或主題
3. 研究問題相關的資料確保資料的來源正確
4. 建立自己的研究框架和理解問題的背景

歷史著作、史料選讀、史料分析

1. 選讀文明、文化的交會、會有哪些交流情形等相關代表性著作導讀
2. 如何進行史料分析？
3. 分析這些文明、文化對人類歷史產生哪些衝擊

何為「歷史寫作」？

1. 研究計畫書的撰寫  
介紹史學研究的相關程序，說明史學研究的原則與方法，分析史學研究的基本範式。  
「歷史寫作」的方法說明
2. 問題設定
3. 資料查詢
4. 聚焦資料與內容推論

實作：小論文撰寫

請學生在〈十八個地理座標看世界史：從文明發源、民族、政治、軍事和帝國，到殖民、貿易和全球化，探討各地的發展與交流歷程〉的主題下，依先前「歷史寫作」的方式，書寫小論文



|       |     |                                                                                |                                                                                                |
|-------|-----|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|       | 十   | 歷史著作與歷史寫作                                                                      | 實作：小論文撰寫<br>請學生在〈十八個地理座標看世界史：從文明發源、民族、政治、軍事和帝國，到殖民、貿易和全球化，探討各地的發展與交流歷程〉的主題下，依先前「歷史寫作」的方式，書寫小論文 |
|       | 十一  | 歷史著作與歷史寫作                                                                      | 實作：小論文撰寫<br>請學生在〈十八個地理座標看世界史：從文明發源、民族、政治、軍事和帝國，到殖民、貿易和全球化，探討各地的發展與交流歷程〉的主題下，依先前「歷史寫作」的方式，書寫小論文 |
|       | 十二  | 歷史著作與歷史寫作                                                                      | 實作：小論文撰寫<br>請學生在〈十八個地理座標看世界史：從文明發源、民族、政治、軍事和帝國，到殖民、貿易和全球化，探討各地的發展與交流歷程〉的主題下，依先前「歷史寫作」的方式，書寫小論文 |
|       | 十三  | 歷史著作與歷史寫作                                                                      | 實作：小論文撰寫<br>請學生在〈十八個地理座標看世界史：從文明發源、民族、政治、軍事和帝國，到殖民、貿易和全球化，探討各地的發展與交流歷程〉的主題下，依先前「歷史寫作」的方式，書寫小論文 |
|       | 十四  | 歷史著作與歷史寫作                                                                      | 實作：小論文撰寫<br>請學生在〈十八個地理座標看世界史：從文明發源、民族、政治、軍事和帝國，到殖民、貿易和全球化，探討各地的發展與交流歷程〉的主題下，依先前「歷史寫作」的方式，書寫小論文 |
|       | 十五  | 歷史著作與歷史寫作                                                                      | 實作：小論文撰寫<br>請學生在〈十八個地理座標看世界史：從文明發源、民族、政治、軍事和帝國，到殖民、貿易和全球化，探討各地的發展與交流歷程〉的主題下，依先前「歷史寫作」的方式，書寫小論文 |
|       | 十六  | 歷史著作與歷史寫作                                                                      | 實作：小論文撰寫<br>請學生在〈十八個地理座標看世界史：從文明發源、民族、政治、軍事和帝國，到殖民、貿易和全球化，探討各地的發展與交流歷程〉的主題下，依先前「歷史寫作」的方式，書寫小論文 |
|       | 十七  | 歷史解釋與反思                                                                        | 歷史解釋怎麼形成？<br>※可從學生編寫的分析「歷史解釋」的案例討論<br>歷史敘述中的觀點探討<br>※可從學生編寫的分析「歷史觀點」的案例討論                      |
|       | 十八  | 歷史解釋與反思                                                                        | 歷史解釋怎麼形成？<br>※可從學生編寫的分析「歷史解釋」的案例討論<br>歷史敘述中的觀點探討<br>※可從學生編寫的分析「歷史觀點」的案例討論                      |
|       | 十九  |                                                                                |                                                                                                |
|       | 二十  |                                                                                |                                                                                                |
|       | 二十一 |                                                                                |                                                                                                |
|       | 二十二 |                                                                                |                                                                                                |
| 學習評量： |     | 1. 檔案評量（書面報告） 40%<br>2. 實作評量（實作、作業、鑑賞） 30%<br>3. 口語評量（口頭報告） 20%<br>4. 自我評量 10% |                                                                                                |
| 備註：   |     |                                                                                |                                                                                                |

## 二、校訂必修課程

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 課程名稱：   | 中文名稱：Physics II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
|         | 英文名稱：Physics II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
| 授課年段：   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 學分總數：4                              |
| 課程屬性：   | 自然科學領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
|         | B溝通互動：B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |
|         | C社會參與：C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| 學習目標：   | <ul style="list-style-type: none"> <li>• Properly use terminology associated with the scientific method.</li> <li>• Develop and use graphical models to explain physics concepts</li> <li>• Use mathematics and computational thinking to quantify variables and identify units</li> <li>• Make predictions, plan and carry out investigations involving physics concepts, such as Newton's three laws, momentum and energy conservation, and more.</li> <li>• Analyze and interpret data between voltage, current, and resistance of a circuit.</li> <li>• Evaluate a claim based on evidence and reasoning.</li> <li>• Apply their understanding of physics concepts to evaluate a complex real-world problem.</li> </ul> |                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 單元/主題                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Review Unit 1- Unit 4               |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 5: Electromagnetism            |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 5: Electromagnetism            |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 5: Electromagnetism            |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 5: Electromagnetism            |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 5: Electromagnetism            |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 6: Wave Energy                 |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 6: Wave Energy                 |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 6: Wave Energy                 |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 6: Wave Energy                 |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 6: Wave Energy                 |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 6: Wave Energy                 |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 6: Wave Energy                 |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 6: Wave Energy                 |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 6: Wave Energy                 |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Final project                       |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Final project                       |
|         | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Wrap Up                             |
|         | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |
|         | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |
|         | 二十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 內容綱要                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Introduction and review             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Electrical Energy                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Electrical Circuits                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Magnetism & Electromagnetism        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Electromagnetic Induction           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Electric Energy Generation / Lab    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Vibration & Waves                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Wave Behavior                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Standing Waves & Sound              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Light Waves & Color                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reflection & Mirrors                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Refraction & Ray Model of Light     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Dual Nature of Light                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Optimizing Information Technologies |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Waves in Technology/Lab             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Project and presentation            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Project and presentation            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Questions and Discussion            |

|       |                                                          |  |
|-------|----------------------------------------------------------|--|
|       | 二十<br>二                                                  |  |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |  |
| 備註：   | 全英語授課                                                    |  |

|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 課程名稱：                                                                                                                                                           | 中文名稱：US History II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |
|                                                                                                                                                                 | 英文名稱：US History II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |
| 授課年段：                                                                                                                                                           | 學分總數：4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                               |
| 課程屬性：                                                                                                                                                           | 社會領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                               |
| 議題融入：                                                                                                                                                           | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                               |
| 師資來源：                                                                                                                                                           | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                               |
| 課綱核心素養：                                                                                                                                                         | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |
|                                                                                                                                                                 | B溝通互動：B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |
|                                                                                                                                                                 | C社會參與：C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |
| 學生圖像：                                                                                                                                                           | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                               |
| 學習目標：                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Develop critical thinking skills through the analysis of primary and secondary sources in American history.</li> <li>• Evaluate the perspectives and motivations of historical figures and groups.</li> <li>• Apply inquiry-based methods to explore key questions in American history.</li> <li>• Investigate the concept of American identity, considering cultural, social, and political factors.</li> <li>• Analyze the impact of historical events on the development of American identity.</li> <li>• Explore diversity and unity in American history, considering multiple perspectives.</li> <li>• Examine the foundations of American democracy through the study of key documents like the Constitution and the Bill of Rights.</li> <li>• Analyze the evolution of democratic ideals and their impact on American society.</li> <li>• Investigate the roles of citizens in shaping the course of American history.</li> <li>• Explore the social and cultural aspects of American history, including the impact of immigration, diversity, and cultural heritage.</li> <li>• Investigate the economic transformation</li> </ul> |                                                                               |
| 教學大綱：                                                                                                                                                           | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 單元/主題                                                                         |
|                                                                                                                                                                 | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4: Civil War - The Issue of Slavery                                      |
|                                                                                                                                                                 | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4: Civil War - The Birth of the Republican Party, Slavery, and Secession |
|                                                                                                                                                                 | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4: Civil War - The Civil War Begins                                      |
|                                                                                                                                                                 | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4: Civil War - The Politics of War                                       |
|                                                                                                                                                                 | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4: Civil War - The North Takes Charge                                    |
| 內容綱要                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |
| Civil War jigsaw terms activity<br>1856 Campaign Speech Assignment<br>Explore how the issue of slavery dominated U.S. politics in early 1850s                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |
| Analyze the factors leading to the splitting of political parties and the formation of new ones<br>Document-based lesson: 1860 U.S. Census                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |
| Examination of how the secession of southern states cause the North and the South to take up arms<br>Library of Congress Civil War photo document-based inquiry |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |
| Document-based lesson: Gettysburg Address<br>Analysis of Emancipation Proclamation and its impact on the war                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |
| Exploration of key victories at Vicksburg and Gettysburg helped the Union wear down the Confederacy<br>Document-based lesson: Total War                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |

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| 六  | Unit 4: Civil War - Effects of the War                                                               | Escape Room Civil War review activity<br>Document-based lesson: Assassination of Lincoln at Ford's Theatre                                                                                                    |
| 七  | Unit 5: Reconstruction & The Gilded Age - The Politics of Reconstruction                             | Examination of how Congress opposed Lincoln's and Johnson's plans for Reconstruction<br>Reconstruction jigsaw terms activity<br>Document-based lesson: Forty Acres and a Mule                                 |
| 八  | Unit 5: Reconstruction & The Gilded Age - Life After Slavery & The Collapse of Reconstruction        | Analysis on the successes and failures of the Reconstruction era<br>Document-based lesson: Klansmen Broke My Door Open                                                                                        |
| 九  | Unit 5: Reconstruction & The Gilded Age - Cultures Clash on the Prairie                              | Exploration of Plains Indians culture and their decline as white settlers moved west<br>Western Settler Survival Game                                                                                         |
| 十  | Unit 5: Reconstruction & The Gilded Age - The Expansion of Industry                                  | Exploration of the second Industrial Revolution<br>Robber Baron vs Captain of Industry presentation research project                                                                                          |
| 十一 | Unit 5: Reconstruction & The Gilded Age - Big Business - The New Immigrants                          | Learn about immigration from Europe, Asia, the Caribbean, and Mexico reaching a new high<br>Document based lesson: political cartoons about immigration                                                       |
| 十二 | Unit 5: Reconstruction & The Gilded Age -- Politics in the Gilded Age                                | Exploration of the Political Machine and the corruption of the Gilded Age<br>Boss Tweed vs. Thomas Nast                                                                                                       |
| 十三 | Unit 6: Progressivism, TDR, US Imperialism & WWI, Roaring 20s, Depression —Segregation and Discrimin | Analysis of social change and the roots of the progressive movements of the late 1800s<br>Examination of how African Americans led the fight against voting restrictions<br>Jim Crow law activity             |
| 十四 | Unit 6: Progressivism, TDR, US Imperialism & WWI, Roaring 20s, Depression - Teddy Roosevelt's Square | Look into Theodore Roosevelt's background and work to give citizens a Square Deal through progressive reforms<br>Document-based lesson: The Square Deal speech                                                |
| 十五 | Unit 6: Progressivism, TDR, US Imperialism & WWI, Roaring 20s, Depression - Imperialism and America  | Learn about the factors that influenced U.S. Imperialism, and about the transformation of the United States into a global power<br>Inquiry Based Lesson: American Imperialism justified in political cartoons |
| 十六 | Unit 6: Progressivism, TDR, US Imperialism & WWI, Roaring 20s, Depression                            | Examination of the causes and consequences of World War I and how the conflict forced the US to abandon neutrality<br>Assassination of the Archduke Ferdinand walk through                                    |
| 十七 | Unit 6: Progressivism, TDR, US Imperialism & WWI, Roaring 20s, Depression                            | Discover the challenges and changes that the nation faced after World War I and the vibrant cultural life that came about                                                                                     |

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|       |                                                          |                                                                           | Roaring Twenties slang skit writing project                                                                                                                                                                                          |
|       | 十八                                                       | Unit 6: Progressivism, TDR, US Imperialism & WWI, Roaring 20s, Depression | <p>Analyze how weaknesses in the American economy helped bring about the Great Depression and how it affected millions of Americans</p> <p>Document Based Lesson: Explore the Depression through Library of Congress Photographs</p> |
|       | 十九                                                       |                                                                           |                                                                                                                                                                                                                                      |
|       | 二十                                                       |                                                                           |                                                                                                                                                                                                                                      |
|       | 二十一                                                      |                                                                           |                                                                                                                                                                                                                                      |
|       | 二十二                                                      |                                                                           |                                                                                                                                                                                                                                      |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                                                           |                                                                                                                                                                                                                                      |
| 備註：   | 全英語授課                                                    |                                                                           |                                                                                                                                                                                                                                      |



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| 課程名稱：   | 中文名稱：US LiteratureII                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                    |
|         | 英文名稱：US Literature II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                    |
| 授課年段：   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 學分總數：4                                                                                                                                                                                                             |
| 課程屬性：   | 語文領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                    |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                    |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                    |
| 課綱核心素養： | A自主行動：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                    |
|         | B溝通互動：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                    |
|         | C社會參與：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                    |
| 學生圖像：   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                    |
| 學習目標：   | <ul style="list-style-type: none"> <li>Engage in the close reading and analysis of diverse texts.</li> <li>Evaluate the use of rhetorical devices, argumentation, and tone.</li> <li>Draw evidence from texts to support analysis and arguments.</li> <li>Examine how historical events and cultural contexts influence literature.</li> <li>Develop effective writing skills, including the ability to write clear and coherent essays.</li> <li>Apply research skills and cite textual evidence to support claims.</li> <li>Engage in discussions and debates, providing well-structured arguments and counterarguments.</li> <li>Interpret and evaluate complex themes, motifs, and symbols.</li> <li>Analyze characters, their motivations, and character development.</li> <li>Make connections between different texts and draw inferences.</li> <li>Encourage the creation of original content</li> <li>Encourage the synthesis of various elements to convey a deeper message.</li> <li>Develop students' abilities to apply literary techniques in their own writing.</li> </ul> |                                                                                                                                                                                                                    |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                                                                              |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4: Introduction to Media and Democracy                                                                                                                                                                        |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4: Introduction to Media and Democracy                                                                                                                                                                        |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4: Media and Government                                                                                                                                                                                       |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4: Media and Government                                                                                                                                                                                       |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4: The Changing Landscape of Media                                                                                                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 內容綱要                                                                                                                                                                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and analyze: First Amendment to the United States Constitution, and "The Role of the Media in a Democracy"<br>Discuss the significance of free speech and the role of a free press in a democratic society    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and analyze: First Amendment to the United States Constitution, and "The Role of the Media in a Democracy"<br>Discuss the significance of free speech and the role of a free press in a democratic society    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and analyze: New York Times Co. v. United States, and "How the Rise of the Daily Me Threatens Democracy"<br>Explore the tension between media and government, and the importance of a well-informed citizenry |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and analyze: "The Newspaper is Dying-Hooray for Democracy"<br>Discuss the impact of digital media on journalism and its implications for objectivity                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and analyze: "Facebook Photos Sting Minnesota High School Students," and "Pro and Con: Raising Graduation for High School Students"                                                                           |

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|    |                                                     | Analyze media's role in shaping public opinion and its influence on educational policies                                                                                                                                                                           |
| 六  | Unit 4: The Changing Landscape of Media             | <p>Read and analyze: "New Michigan Graduation Requirements Shortchange Many Students," and "An Inside Look at Editorial Cartoons"</p> <p>Analyze media's role in shaping public opinion and its influence on educational policies</p>                              |
| 七  | Unit 4: Group Op-ed News Project                    | <p>Students choose to analyze a current school-related issue</p> <p>They research, gather evidence and write a collaborative op-ed piece, including editorials, letters to the editor, and editorial cartoons</p>                                                  |
| 八  | Unit 4: Group Op-ed News Project                    | Students compile and layout the op-ed section together                                                                                                                                                                                                             |
| 九  | Unit 4: Satire and Social Commentary                | <p>Read and analyze: "Let's Hear It for the Cheerleaders," "If Flint's water problem happened to rich people," and "Girl Moved to Tears by Of Mice and Men CliffsNotes"</p> <p>Explore satire as a form of social commentary and critique of media and society</p> |
| 十  | Unit 4: Satire and Social Commentary                | <p>Read and analyze: "In Depth, but Shallowly," "Advice to Youth," and "The War Prayer"</p> <p>Explore satire as a form of social commentary and critique of media and society</p>                                                                                 |
| 十一 | Unit 4: Writing a Satirical Piece                   | <p>Students write a satirical piece addressing a contemporary societal issue, inspired by the readings on satire and social commentary.</p> <p>Showcase creative use of humor, irony, and exaggeration to convey a message.</p>                                    |
| 十二 | Unit 4: Writing a Satirical Piece                   | <p>Students write a satirical piece addressing a contemporary societal issue, inspired by the readings on satire and social commentary.</p> <p>Showcase creative use of humor, irony, and exaggeration to convey a message.</p>                                    |
| 十三 | Unit 5: Grapes of Wrath - Introduction and Ch. 1-10 | <p>Introduce John Steinbeck and the historical context of the Great Depression</p> <p>Read and analyze the first ten chapters of "The Grapes of Wrath"</p>                                                                                                         |
| 十四 | Unit 5: Grapes of Wrath - Introduction and Ch. 1-10 | <p>Introduce John Steinbeck and the historical context of the Great Depression</p> <p>Read and analyze the first ten chapters of "The Grapes of Wrath"</p>                                                                                                         |
| 十五 | Unit 5: Grapes of Wrath - Ch. 11-20                 | <p>Analyze the themes of poverty, migration, and societal injustice as presented in the novel</p> <p>Read and analyze chapters 11-20</p>                                                                                                                           |
| 十六 | Unit 5: Grapes of Wrath - Ch. 11-20                 | Analyze the themes of poverty, migration, and societal injustice as                                                                                                                                                                                                |

|       |                                                          |                                     |                                                                                                                                           |
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|       |                                                          |                                     | presented in the novel<br>Read and analyze chapters 11-20                                                                                 |
|       | 十七                                                       | Unit 5: Grapes of Wrath - Ch. 21-30 | Discuss the novel's themes of resilience, community, and the human spirit<br>Analyze the concluding chapters and the characters' journeys |
|       | 十八                                                       | Unit 5: Grapes of Wrath - Ch. 21-30 | Engage in a culminating class discussion on the impact of the novel on readers and society                                                |
|       | 十九                                                       |                                     |                                                                                                                                           |
|       | 二十                                                       |                                     |                                                                                                                                           |
|       | 二十一                                                      |                                     |                                                                                                                                           |
|       | 二十二                                                      |                                     |                                                                                                                                           |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                     |                                                                                                                                           |
| 備註：   | 全英語授課                                                    |                                     |                                                                                                                                           |

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| 課程名稱：   | 中文名稱：World History II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                        |
|         | 英文名稱：World History II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                        |
| 授課年段：   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 學分總數：4                                                                                                                                                                                                                                                                                 |
| 課程屬性：   | 社會領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                        |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                        |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                        |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                        |
|         | B溝通互動：B2.科技資訊與媒體素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                        |
|         | C社會參與：C2.人際關係與團隊合作、C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                        |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                        |
| 學習目標：   | <ul style="list-style-type: none"> <li>• Develop critical thinking skills through the analysis of primary and secondary sources.</li> <li>• Evaluate the reliability and bias of historical documents and artifacts.</li> <li>• Apply inquiry-based methods to investigate historical questions.</li> <li>• Explore the interactions between geography, empires, and cultural exchange.</li> <li>• Analyze literature, including epics and myths, to understand cultural expression.</li> <li>• Engage in creative projects that express understanding of historical narratives.</li> <li>• Analyze political structures and ideals across various time periods</li> <li>• Explore technological innovations and achievements in architecture, medicine, and mathematics.</li> <li>• Connect technological advancements to societal progress and cultural expression.</li> <li>• Showcase understanding through various forms of assessment, including writing, projects, and assignments.</li> <li>• Develop skills in source analysis and historical interpretation.</li> </ul> |                                                                                                                                                                                                                                                                                        |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題                                                                                                                                                                                                                                                                                  |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 4: Birth and Spread of Christianity                                                                                                                                                                                                                                               |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 4: The Rise of Islam                                                                                                                                                                                                                                                              |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 4: The Middle Ages - From Feudalism to Change                                                                                                                                                                                                                                     |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 4: The Middle Ages - From Feudalism to Change                                                                                                                                                                                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 內容綱要                                                                                                                                                                                                                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Exploration of the origins of Christianity and its early expansion.</p> <p>Inquiry-based lesson: How did the basic beliefs of Christianity conflict with Roman religious beliefs?</p> <p>Inquiry-based lesson: How and why did Christianity spread throughout the Roman empire?</p> |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Study of the origins, beliefs, and spread of Islam.</p> <p>Inquiry-based lesson: What are the basic beliefs and practices of Islam?</p> <p>Document-based Question: What factors contributed to the rapid expansion of Islam during its early years?</p>                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Europe after the fall of Rome: Transition to the medieval period.</p> <p>Inquiry-based lesson: How effective was Charlemagne as Holy Roman emperor?</p>                                                                                                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Feudalism, Manors, and Towns: Understanding the feudal social structure.</p> <p>Popes and Kings: The power struggle between church and state.</p>                                                                                                                                   |

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| 五  | Unit 4: The Middle Ages - From Feudalism to Change               | <p>The Crusades: Exploration of motivations, outcomes, and cultural interactions.</p> <p>Inquiry-based lesson: How did both sides experience the attack on Jerusalem during the Crusades?</p>          |
| 六  | Unit 4: The Middle Ages - From Feudalism to Change               | <p>Christianity and Medieval Society: Role of the church in daily life.</p> <p>Inquiry-based lesson: How did the Magna Carta limit the power of the English king and impact political systems?</p>     |
| 七  | Unit 5: Origins of the Renaissance                               | <p>Examination of factors that led to the intellectual revival in Europe.</p> <p>Inquiry-based lesson: How did art reflect the characteristics of the Renaissance period?</p>                          |
| 八  | Unit 5: Italian Renaissance and Beyond                           | <p>Study of the Italian city-states' cultural achievements and spread of ideas.</p> <p>Inquiry-based lesson: According to Machiavelli, what are the characteristics of an effective prince?</p>        |
| 九  | Unit 5: Protestant Reformation and Counter-Reformation           | <p>Analysis of Martin Luther's 95 Theses and the Protestant movement.</p> <p>Inquiry-based lesson: How did Martin Luther's 95 Theses reflect discontent with the practices of the Catholic Church?</p> |
| 十  | Unit 5: Protestant Reformation and Counter-Reformation           | <p>The Catholic Reformation: Efforts to reform and renew the Catholic Church.</p>                                                                                                                      |
| 十一 | Unit 5: Effects of the Reformation                               | <p>Investigation into the social, political, and religious consequences of the Reformation.</p> <p>Reading and analyzing excerpts from literary works like "Don Quixote."</p>                          |
| 十二 | Unit 5: Effects of the Reformation                               | <p>Inquiry-based lesson: Assessing the long-term impact of the Reformation on Europe.</p>                                                                                                              |
| 十三 | Unit 6: A New View of the World                                  | <p>Introduction to the changing worldview brought about by the Scientific Revolution.</p> <p>Inquiry-based lesson: Why were Copernicus' discoveries about astronomy revolutionary?</p>                 |
| 十四 | Unit 6: Discoveries, Inventions, and Science's Impact on Society | <p>Exploration of scientific discoveries and their influence on various fields.</p> <p>Examining how scientific advancements reshaped societies.</p>                                                   |
| 十五 | Unit 6: Discoveries, Inventions, and Science's Impact on Society | <p>Inquiry-based lesson: How did Galileo's trial exemplify the conflict between scientific advancement and religious tradition during this time?</p>                                                   |
| 十六 | Unit 6: Great Voyages of Discovery and the Columbian Exchange    | <p>Study of major explorations and the resulting exchange of goods, people, and ideas.</p> <p>Inquiry-based lesson: How did the Columbian Exchange affect both the "Old" and "New" Worlds?</p>         |
| 十七 | Unit 6: Great Voyages of Discovery and the Columbian             | <p>Inquiry-based lesson: How did slaves experience the Middle Passage to the</p>                                                                                                                       |

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|       |                                                          | Exchange                          | Americas?                                                                                                                                                                         |
|       | 十八                                                       | Culminating Project Presentations | Students synthesize knowledge gained throughout the course and showcase their understanding of historical themes, connections, and the impact of various civilizations and events |
|       | 十九                                                       |                                   |                                                                                                                                                                                   |
|       | 二十                                                       |                                   |                                                                                                                                                                                   |
|       | 二十一                                                      |                                   |                                                                                                                                                                                   |
|       | 二十二                                                      |                                   |                                                                                                                                                                                   |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                   |                                                                                                                                                                                   |
| 備註：   | 全英語授課                                                    |                                   |                                                                                                                                                                                   |



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| 課程名稱：   | 中文名稱：World Literature II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                            |
|         | 英文名稱：World Literature II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                            |
| 授課年段：   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 學分總數：4                                                                                                                                                                                     |
| 課程屬性：   | 語文領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                            |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                            |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                            |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                            |
|         | B溝通互動：B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                            |
|         | C社會參與：C2.人際關係與團隊合作                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                            |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                            |
| 學習目標：   | <ul style="list-style-type: none"> <li>Engage in the close reading and analysis of diverse texts.</li> <li>Evaluate the use of rhetorical devices, argumentation, and tone.</li> <li>Draw evidence from texts to support analysis and arguments.</li> <li>Examine how historical events and cultural contexts influence literature.</li> <li>Develop effective writing skills, including the ability to write clear and coherent essays.</li> <li>Apply research skills and cite textual evidence to support claims.</li> <li>Analyze characters, their motivations, and character development.</li> <li>Make connections between different texts and draw inferences.</li> <li>Facilitate the synthesis of various elements to convey a deeper message.</li> <li>Develop students' abilities to apply rhetorical techniques in their own writing.</li> </ul> |                                                                                                                                                                                            |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 單元/主題                                                                                                                                                                                      |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 3: Freedom of Speech                                                                                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Read and discuss "Amendment 1 -US Constitution", Supreme Court Case Tinker vs. Des Moines<br>Write a synthesis argument on school dress codes                                              |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 3: Vaccines                                                                                                                                                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Read and discuss Supreme Court Case Jacobsen vs. Massachusetts<br>Identify primary claim and supporting evidence<br>Develop and finalize synthesis argument on school dress codes          |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 3: Herd Immunity                                                                                                                                                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Read and discuss "Immunity: An Inoculation", "Herd Immunity" and the political cartoon "The Speckled Monster"<br>Analyze and synthesis information from a wide range of texts              |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 3: Two Opinions on COVID-19 Vaccines                                                                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Read and discuss "The vaccines were a biomedical triumph" and "It's time the Pentagon its COVID mandate"<br>Analyze how the author's purpose, audience and message shape reader perception |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 3: Writing a Synthesis Argument                                                                                                                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Use three of the sources discussed to write an argument about the extent to which government should exercise control over personal rights regarding vaccinations                           |

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| 六  | Unit 3: Digging into the Research Process              | <p>Develop a research plan for a research report</p> <p>Understand the research process and brainstorm topics</p>                                                                                                          |
| 七  | Unit 3: Forming questions                              | <p>Examine environmental topics to research</p> <p>Evaluate research questions and revise to make specific</p> <p>Evaluate sources for credibility</p> <p>Choose a topic and begin compiling an annotated bibliography</p> |
| 八  | Unit 3: Presenting Research                            | <p>Write an objective summary</p> <p>Receive peer feedback on annotated bibliography citations</p> <p>Finalize annotated bibliography</p>                                                                                  |
| 九  | Unit 3: Visual Evidence                                | <p>Read “Single-Use Plastics”</p> <p>Explore how evidence can be presented visually by reading infographics</p> <p>Develop a presentation plan</p>                                                                         |
| 十  | Unit 3: Presenting Solutions to Environmental Problems | <p>Evaluate graphs, charts and other visuals</p> <p>Conduct additional research</p> <p>Present solutions to environmental problems</p>                                                                                     |
| 十一 | Unit 4: Odes to Food and Pets                          | <p>Read and discuss “Vegetable Love in Texas”, “Mutton”, “Ode to Kool-Aid”, and “O Fathomless Cat”</p> <p>Analyze meter and rhyme in poetry</p> <p>Explore conventions, characteristics and structure of poems</p>         |
| 十二 | Unit 4: Conventions of Sonnets                         | <p>Read and discuss Petrarch’s Sonnet 90 and Shakespeare’s Sonnet 130</p> <p>Analyze the use of satire, and write a paragraph about how this is used to achieve an author’s purpose</p>                                    |
| 十三 | Unit 4: Sorrow in an Elegy                             | <p>Read and discuss “Funeral Blues”</p> <p>Examine how word choice contributes to voice, mood, and tone</p> <p>Write a literary analysis of a poem</p>                                                                     |
| 十四 | Unit 4: Introduction to Greek Drama and Antigone       | <p>Preview the play, learning about Greek tragedy, Sophocles and the background of the story</p> <p>Begin reading the drama, analyzing character motivations and conflicts</p>                                             |
| 十五 | Unit 4: Antigone - Enter the King                      | <p>Analyze the difference between dynamic and static characters.</p> <p>Examine the character of Creon, including his attitude, actions, and emotions.</p>                                                                 |
| 十六 | Unit 4: Antigone - Conflicting Motivations             | <p>Examine character motivations and beliefs</p> <p>Make predictions about how character interactions will advance the plot</p>                                                                                            |
| 十七 | Unit 4: Antigone - An Epic Foil                        | <p>Discuss the use of foil characters</p> <p>Examine the staging of a play</p>                                                                                                                                             |
| 十八 | Unit 4: Antigone - Tragic Hero                         | <p>Analyze the development of a tragic hero over the course of a play</p>                                                                                                                                                  |
| 十九 |                                                        |                                                                                                                                                                                                                            |

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|-------|----------------------------------------------------------|--|--|
|       | 二十                                                       |  |  |
|       | 二十一                                                      |  |  |
|       | 二十二                                                      |  |  |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |  |  |
| 備註：   | 全英語授課                                                    |  |  |

【備查版】

【備查版】

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|---------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：Algebra II                                                                                                                |                                                                                                                |
|         | 英文名稱：Algebra II                                                                                                                |                                                                                                                |
| 授課年段：   | 一上、一下                                                                                                                          | 學分總數：8                                                                                                         |
| 課程屬性：   | 數學領域                                                                                                                           |                                                                                                                |
| 議題融入：   | 閱讀素養                                                                                                                           |                                                                                                                |
| 師資來源：   | 校內單科                                                                                                                           |                                                                                                                |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決                                                                                                             |                                                                                                                |
|         | B溝通互動：B1.符號運用與溝通表達                                                                                                             |                                                                                                                |
|         | C社會參與：C3.多元文化與國際理解                                                                                                             |                                                                                                                |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 |                                                                                                                |
| 學習目標：   | Emphasize problem solving, reasoning, discovery and the use of technology.<br>Develope understanding of probability concepts.  |                                                                                                                |
| 教學大綱：   | 週次/序                                                                                                                           | 單元/主題                                                                                                          |
|         | 一                                                                                                                              | Ch2 Absolute value Functions, equation, and Inequality                                                         |
|         | 二                                                                                                                              | Ch2 Absolute value Functions, equation, and Inequality                                                         |
|         | 三                                                                                                                              | Ch3 Quadratic equations                                                                                        |
|         | 四                                                                                                                              | Ch3 Quadratic equations                                                                                        |
|         | 五                                                                                                                              | Ch4 Quadratic relations and systems of equations                                                               |
|         | 六                                                                                                                              | Ch4 Quadratic relations and systems of equations                                                               |
|         | 七                                                                                                                              | Ch5 Polynomial functions                                                                                       |
|         | 八                                                                                                                              | Ch6 Polynomials                                                                                                |
|         | 九                                                                                                                              | Project                                                                                                        |
|         | 十                                                                                                                              | Ch6 Polynomials                                                                                                |
|         | 十一                                                                                                                             | Ch7 Polynomial equations                                                                                       |
|         | 十二                                                                                                                             | Ch7 Polynomial equations                                                                                       |
|         | 十三                                                                                                                             | Ch8 Rational functions                                                                                         |
|         | 十四                                                                                                                             | Ch9 Rational expressions and equations                                                                         |
|         | 十五                                                                                                                             | Ch10 Radical functions                                                                                         |
|         |                                                                                                                                | 內容綱要                                                                                                           |
|         |                                                                                                                                | Graphing absolute Value Functions<br>Solving absolute Value Equations                                          |
|         |                                                                                                                                | Solving absolute value Inequalities                                                                            |
|         |                                                                                                                                | Solving quadratic Equations by Taking Square Roots                                                             |
|         |                                                                                                                                | Complex numbers<br>Finding Complex Solutions of Quadratic Equations                                            |
|         |                                                                                                                                | Circles<br>Parabolas                                                                                           |
|         |                                                                                                                                | Solving Linear-Quadratic Systems<br>Solving Linear Systems in Three Variables                                  |
|         |                                                                                                                                | Graphing Cubic Functions<br>Graphing Polynomial Functions                                                      |
|         |                                                                                                                                | Adding and subtracting Polynomials<br>Multiplying polynomials<br>The Binomial Theorem<br>Factoring Polynomials |
|         |                                                                                                                                | Question and discussion                                                                                        |
|         |                                                                                                                                | Dividing Polynomials                                                                                           |
|         |                                                                                                                                | Find Rational Solutions of Polynomial Equations                                                                |
|         |                                                                                                                                | Finding Complex Solutions of Polynomial Equations                                                              |
|         |                                                                                                                                | Graphing Simple Rational Functions<br>Graphing More Complicated Raational Functions                            |
|         |                                                                                                                                | Adding and Subtracting Rational Expressions<br>Multiplying and Dividing Rationa Expressions                    |
|         |                                                                                                                                | Solving Rational Equations<br>Inverses of Simple Quadratic and Cubic Functions                                 |

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|       | 十六                                                       | Ch11 Radical expressions and equations | Graphing Square Root Functions<br>Graphing Cube Root Functions                |
|       | 十七                                                       | Ch12 Sequences and series              | Radical Expressions and Rational Exponents<br>Simplifying Radical Expressions |
|       | 十八                                                       | Wrap-up                                | Question and discussion                                                       |
|       | 十九                                                       |                                        |                                                                               |
|       | 二十                                                       |                                        |                                                                               |
|       | 二十一                                                      |                                        |                                                                               |
|       | 二十二                                                      |                                        |                                                                               |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                        |                                                                               |
| 備註：   | 全英語授課                                                    |                                        |                                                                               |

【備查版】

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| 課程名稱：   | 中文名稱： Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |
|         | 英文名稱：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
| 授課年段：   | 一上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 學分總數： 4    |
| 課程屬性：   | 自然科學領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |
|         | B溝通互動： B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |
|         | C社會參與： C2.人際關係與團隊合作                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |
| 學習目標：   | <p>Establish a foundation of high school chemistry knowledge, emphasizing the application of fundamental chemical principles and hands-on learning through experimental activities.</p> <p>Cultivate students' abilities for independent exploration and problem-solving.</p> <p>Connect the content of knowledge with life experiences to foster a correct attitude towards academic inquiry in students.</p> <p>Understand the structure, composition, and properties of substances, and learn the evolution of scientific knowledge through the development of chemistry.</p> |            |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題      |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 3  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 3  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 4  |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 4  |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 5  |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 5  |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 6  |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 6  |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Project    |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chapter 7  |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Chapter 8  |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Chapter 9  |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Chapter 10 |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Chapter 11 |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Chapter 12 |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Chapter 13 |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Chapter 14 |
|         | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Wrap Up    |
|         | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |
|         | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |



|       |                                                          |  |  |
|-------|----------------------------------------------------------|--|--|
|       | 二十一                                                      |  |  |
|       | 二十二                                                      |  |  |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |  |  |
| 備註：   | 全英語授課                                                    |  |  |

【備查版】

|             |                                                                                                                                |                                                        |
|-------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 課程名稱：       | 中文名稱：Honors Algebra II                                                                                                         |                                                        |
|             | 英文名稱：Honors Algebra II                                                                                                         |                                                        |
| 授課年段：       | 一上、一下                                                                                                                          | 學分總數：8                                                 |
| 課程屬性：       | 數學領域                                                                                                                           |                                                        |
| 議題融入：       | 閱讀素養                                                                                                                           |                                                        |
| 師資來源：       | 校內單科                                                                                                                           |                                                        |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決                                                                                                             |                                                        |
|             | B溝通互動：B1.符號運用與溝通表達                                                                                                             |                                                        |
|             | C社會參與：C2.人際關係與團隊合作                                                                                                             |                                                        |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 |                                                        |
| 學習目標：       | Emphasize problem solving, reasoning, discovery and the use of technology.<br>Develope understanding of probability concepts.  |                                                        |
| 教學大綱：       | 週次/<br>序                                                                                                                       | 單元/主題                                                  |
|             | 一                                                                                                                              | Ch2 Absolute value Functions, equation, and Inequality |
|             | 二                                                                                                                              | Ch2 Absolute value Functions, equation, and Inequality |
|             | 三                                                                                                                              | Ch3 Quadratic equations                                |
|             | 四                                                                                                                              | Ch3 Quadratic equations                                |
|             | 五                                                                                                                              | Ch4 Quadratic relations and systems of equations       |
|             | 六                                                                                                                              | Ch4 Quadratic relations and systems of equations       |
|             | 七                                                                                                                              | Ch5 Polynomial functions                               |
|             | 八                                                                                                                              | Ch6 Polynomials                                        |
|             | 九                                                                                                                              | Project                                                |
|             | 十                                                                                                                              | Ch6 Polynomials                                        |
|             | 十一                                                                                                                             | Ch7 Polynomial equations                               |
|             | 十二                                                                                                                             | Ch7 Polynomial equations                               |
|             | 十三                                                                                                                             | Ch8 Rational functions                                 |
|             | 十四                                                                                                                             | Ch9 Rational expressions and equations                 |
|             | 十五                                                                                                                             | Ch10 Radical functions                                 |
|             |                                                                                                                                |                                                        |

|       |                                                          |                                        |                                                                               |
|-------|----------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------|
|       | 十六                                                       | Ch11 Radical expressions and equations | Graphing Square Root Functions<br>Graphing Cube Root Functions                |
|       | 十七                                                       | Ch12 Sequences and series              | Radical Expressions and Rational Exponents<br>Simplifying Radical Expressions |
|       | 十八                                                       | Wrap-up                                | Questions and Discussions                                                     |
|       | 十九                                                       |                                        |                                                                               |
|       | 二十                                                       |                                        |                                                                               |
|       | 二十一                                                      |                                        |                                                                               |
|       | 二十二                                                      |                                        |                                                                               |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                        |                                                                               |
| 備註：   | 全英語授課                                                    |                                        |                                                                               |

|                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 課程名稱：                                                                                                                                                    | 中文名稱： 世界歷史                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                            |
|                                                                                                                                                          | 英文名稱： World History                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                            |
| 授課年段：                                                                                                                                                    | 一上、一下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 學分總數： 4                                                    |
| 課程屬性：                                                                                                                                                    | 社會領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |
| 議題融入：                                                                                                                                                    | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |
| 師資來源：                                                                                                                                                    | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |
| 課綱核心素養：                                                                                                                                                  | A自主行動： A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                            |
|                                                                                                                                                          | B溝通互動： B2.科技資訊與媒體素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                            |
|                                                                                                                                                          | C社會參與： C2.人際關係與團隊合作、C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                            |
| 學生圖像：                                                                                                                                                    | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                            |
| 學習目標：                                                                                                                                                    | <ul style="list-style-type: none"> <li>• Develop critical thinking skills through the analysis of primary and secondary sources.</li> <li>• Evaluate the reliability and bias of historical documents and artifacts.</li> <li>• Apply inquiry-based methods to investigate historical questions.</li> <li>• Explore the interactions between geography, empires, and cultural exchange.</li> <li>• Analyze literature, including epics and myths, to understand cultural expression.</li> <li>• Engage in creative projects that express understanding of historical narratives.</li> <li>• Analyze political structures and ideals across various time periods</li> <li>• Explore technological innovations and achievements in architecture, medicine, and mathematics.</li> <li>• Connect technological advancements to societal progress and cultural expression.</li> <li>• Showcase understanding through various forms of assessment, including writing, projects, and assignments.</li> <li>• Develop skills in source analysis and historical interpretation.</li> </ul> |                                                            |
| 教學大綱：                                                                                                                                                    | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題                                                      |
|                                                                                                                                                          | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1: Introduction to the Fertile Crescent and Geography |
|                                                                                                                                                          | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1: Introduction to the Fertile Crescent and Geography |
|                                                                                                                                                          | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1: The Sumerians - Innovation and Culture             |
|                                                                                                                                                          | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1: Military Empires and Cultural Exchange             |
|                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 內容綱要                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Inquiry-based lesson: What makes something a civilization?                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Understanding the significance of the Fertile Crescent's geographical features.                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Exploration of Sumerian achievements in writing, mathematics, and architecture.                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Inquiry-based lesson: What was life like for ancient Mesopotamians?                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Inquiry-based lesson: How did the Royal Game of Ur reflect the cultural values and practices of ancient Mesopotamia?                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Analysis of Akkadian, Babylonian, Assyrian, Phoenician and Persian empires.                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Investigation into the cultural interactions during military conquests.                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Inquiry-based lesson: How did military expansion lead to cultural diffusion in the Fertile Crescent? What was war like (analyzing Assyrian War Reliefs)? |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| Inquiry-based lesson: What does Hammurabi's Code of Laws reveal about daily life in Babylon?                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |

|    |                                                                       |                                                                                                                                                                                                                                                                                                                                                                               |
|----|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 五  | Unit 1: Military Empires and Cultural Exchange                        | <p>Analysis of Akkadian, Babylonian, Assyrian, Phoenician and Persian empires.</p> <p>Investigation into the cultural interactions during military conquests.</p> <p>Inquiry-based lesson: How did Persians decide on the best type of government for their expanding empire?</p> <p>Document-based Question: How were the Phoenicians able to become successful traders?</p> |
| 六  | Unit 1: Epic of Gilgamesh                                             | <p>Read and analyze the Epic of Gilgamesh</p> <p>Group discussions and exploration of cultural values depicted in the epic</p>                                                                                                                                                                                                                                                |
| 七  | Unit 2: Geography of Ancient Egypt and Importance of the Nile         | <p>Examination of how the Nile shaped early Egyptian settlements.</p> <p>Inquiry-based lesson: Why was the Nile so important to ancient Egyptian civilization (analyzing “The Hymn to the Nile” )</p>                                                                                                                                                                         |
| 八  | Unit 2: The Old Kingdom - Pharaohs and Pyramids                       | <p>Analysis of the political and cultural significance of pyramid building.</p>                                                                                                                                                                                                                                                                                               |
| 九  | Unit 2: The Old Kingdom - Pharaohs and Pyramids                       | <p>Inquiry-based lesson: What do the pyramids reveal about Egyptian culture and beliefs?</p>                                                                                                                                                                                                                                                                                  |
| 十  | Unit 2: Middle and New Kingdoms - Power and Expansion                 | <p>Study of the administrative, social, and cultural aspects of different kingdoms.</p> <p>Document-based Question: Who was Queen Hatshepsut, and how did she die?</p>                                                                                                                                                                                                        |
| 十一 | Unit 2: Middle and New Kingdoms - Power and Expansion                 | <p>Study of the administrative, social, and cultural aspects of different kingdoms.</p> <p>Inquiry-based lesson: What characteristics did Egyptians consider important in an effective pharaoh?</p>                                                                                                                                                                           |
| 十二 | Unit 2: Egyptian Achievements and Technological Innovation            | <p>Exploration of achievements in architecture, medicine, and mathematics.</p> <p>Inquiry-based lesson: How can writing systems provide clues about a particular culture or civilization?</p>                                                                                                                                                                                 |
| 十三 | Unit 3: The Tales of Ancient Egypt                                    | <p>Read and analyze the Tales of Ancient Egypt</p> <p>Group discussions and exploration of cultural values depicted in the tales</p>                                                                                                                                                                                                                                          |
| 十四 | Unit 3: Geography and the Early Greeks - City-states and Colonization | <p>Analysis of the influence of geography on early Greek city-states.</p> <p>Inquiry-based lesson: What does ancient Minoan art tell us about early Greek communities?</p>                                                                                                                                                                                                    |
| 十五 | Unit 3: The Glory of Athens - Democracy and Cultural Flourishing      | <p>Study of Athens’ democratic governance and cultural achievements.</p> <p>Virtual Field Trip: Exploring Ancient Athens.</p>                                                                                                                                                                                                                                                 |
| 十六 | Unit 3: Athens and Sparta - Contrasting Societies and Values          | <p>Comparison of Athenian and Spartan societies, focusing on governance and education.</p> <p>Inquiry-based lesson: How does Pericles’ “Funeral Oration” reflect the</p>                                                                                                                                                                                                      |

|       |                                                          |                                                                    |                                                                                                                                                                                                                              |
|-------|----------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                                          |                                                                    | civic virtues of Athenians during their Golden Age?                                                                                                                                                                          |
|       | 十七                                                       | Unit 3: Greek Mythology and Literature                             | <p>Exploration of Greek myths and their cultural significance.</p> <p>Analysis of classical Greek literature's impact on society.</p> <p>Inquiry-based lesson: How did mythology and literature reflect societal values?</p> |
|       | 十八                                                       | Unit 3: Greek Art, Philosophy and Science - Intellectual Awakening | <p>Study of the contributions of Greek philosophers, artists, and scientists.</p> <p>Inquiry-based lesson: How did theater reflect the values and beliefs of Ancient Greeks?</p>                                             |
|       | 十九                                                       |                                                                    |                                                                                                                                                                                                                              |
|       | 二十                                                       |                                                                    |                                                                                                                                                                                                                              |
|       | 二十一                                                      |                                                                    |                                                                                                                                                                                                                              |
|       | 二十二                                                      |                                                                    |                                                                                                                                                                                                                              |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                                                    |                                                                                                                                                                                                                              |
| 備註：   | 全英語授課                                                    |                                                                    |                                                                                                                                                                                                                              |



|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                        |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 英語文10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                        |
|         | 英文名稱： Honors English Language Arts 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                        |
| 授課年段：   | 一上、一下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 學分總數： 4                                                                                                                                                                                                                                                                                                                |
| 課程屬性：   | 語文領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                        |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                        |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                        |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                        |
|         | B溝通互動： B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                        |
|         | C社會參與： C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                        |
| 學生圖像：   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                        |
| 學習目標：   | <ul style="list-style-type: none"> <li>Engage in the close reading and analysis of diverse texts.</li> <li>Evaluate the use of rhetorical devices, argumentation, and tone.</li> <li>Draw evidence from texts to support analysis and arguments.</li> <li>Examine how historical events and cultural contexts influence literature.</li> <li>Develop effective writing skills, including the ability to write clear and coherent essays.</li> <li>Apply research skills and cite textual evidence to support claims.</li> <li>Engage in discussions and debates, providing well-structured arguments and counterarguments.</li> <li>Interpret and evaluate complex themes, motifs, and symbols.</li> <li>Analyze characters, their motivations, and character development.</li> <li>Make connections between different texts and draw inferences.</li> <li>Encourage the creation of original content</li> <li>Encourage the synthesis of various elements to convey a deeper message.</li> <li>Develop students' abilities to apply literary techniques in their own writing.</li> </ul> |                                                                                                                                                                                                                                                                                                                        |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                                                                                                                                                                                  |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Immigration, Identity and Free Speech                                                                                                                                                                                                                                                                          |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Immigration, Identity and Free Speech                                                                                                                                                                                                                                                                          |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Immigration, Identity and Free Speech                                                                                                                                                                                                                                                                          |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Voices of Diversity                                                                                                                                                                                                                                                                                            |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Voices of Heritage                                                                                                                                                                                                                                                                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 內容綱要                                                                                                                                                                                                                                                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and discuss: "America and I"<br>Analyze diction, imagery, and tone                                                                                                                                                                                                                                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and discuss "The Two Clashing Meanings of Free Speech"<br>Analyze definition strategies                                                                                                                                                                                                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and analyze: The Preamble to the Constitution of the United States, The Bill of Rights, "An Ocean Steamer Passing the Statue of Liberty," and "Address on the Occasion of the Fiftieth Anniversary of the Statue of Liberty"<br>Discuss the importance of these documents in shaping American identity and values |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and analyze the poems "America," "I Hear America Singing," "I, Too," "I, Too Sing America," and the definition essay "Growing Up Asian in America"<br>Explore these different perspectives on American identity                                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Read and discuss the poems "Ellis Island," "Europe and America," "My Uncle's Favorite Coffee Shop"<br>Analyze how cultural heritage contributes to individual identity<br>Brainstorm a definition essay defining personal identity                                                                                     |

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| 六  | Unit 1: Powerful Speeches and Modern Perspectives        | <p>Read and analyze: Excerpt from Obama's "Keynote Address to the 2004 Democratic National Convention," and "The Right to Fail"</p> <p>Reflect on the concept of failure and its role in personal growth</p>                                                                                                                                                                                                                      |
| 七  | Unit 2: Puritanism and the Salem Witch Trials            | <p>Read and discuss: "Sinners in the Hands of an Angry God," The New England Primer</p> <p>Explore the religious and cultural context of Puritan literature</p> <p>Read and analyze: "The Trial of Martha Carrier," "Sorcerer Exchanging Gospels for a Book of Black Magic," The Deposition of Joseph Hutchinson, "The Lessons of Salem"</p> <p>Discuss the social and psychological factors contributing to the witch trials</p> |
| 八  | Unit 2: Puritanism and the Salem Witch Trials            | <p>Discuss the concept of allegory and its relevance to The Crucible</p> <p>Read and analyze Act 1, focusing on the setting, characters, and initial conflict</p>                                                                                                                                                                                                                                                                 |
| 九  | Unit 2: Act 2 of The Crucible                            | <p>Read and analyze Act 2, analyzing themes of hysteria, fear and theocracy as they develop</p> <p>Discuss the moral dilemmas faced by characters and their responses to the witch trials</p>                                                                                                                                                                                                                                     |
| 十  | Unit 2: Act 3 of The Crucible                            | <p>Read and analyze Act 3, analyzing themes of hysteria, fear and theocracy as they develop</p> <p>Discuss the moral dilemmas faced by characters and their responses to the witch trials</p>                                                                                                                                                                                                                                     |
| 十一 | Unit 2: Act 4 of The Crucible                            | <p>Explore the climax and resolution of the play in Act 4</p> <p>Discuss the allegorical connections between "The Crucible" and McCarthyism</p> <p>Analyze the broader societal implications of the events in Salem</p>                                                                                                                                                                                                           |
| 十二 | Project-based lesson: Unraveling The Crucible            | Project introduction, brainstorming and research skills workshop, project proposals                                                                                                                                                                                                                                                                                                                                               |
| 十三 | Project-based lesson: Unraveling The Crucible            | Research, synthesis and project development                                                                                                                                                                                                                                                                                                                                                                                       |
| 十四 | Unit 3: Introduction to Hamlet and Shakespearean Tragedy | <p>Watch, read and discuss Act 1</p> <p>Introduce Shakespearean language, themes, and tragic elements</p> <p>Explore Hamlet's dilemma, the ghost's revelation</p>                                                                                                                                                                                                                                                                 |
| 十五 | Unit 3: Hamlet Act 2                                     | <p>Watch, read and analyze Act 2 of Hamlet</p> <p>Discuss the political intrigue, family dynamics, and Hamlet's inner conflict</p>                                                                                                                                                                                                                                                                                                |
| 十六 | Unit 3: Hamlet Act 3                                     | <p>Watch, read and discuss Act 3</p> <p>Analyze themes of madness, revenge, and deception</p> <p>Examine Hamlet's complex relationships and internal struggles</p>                                                                                                                                                                                                                                                                |
| 十七 | Unit 3: Hamlet Act 4                                     | <p>Watch, read and discuss Act 4</p> <p>Explore the consequences of Hamlet's</p>                                                                                                                                                                                                                                                                                                                                                  |

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|  |                                                                |                      | actions and the madness motif                                                                                                                                               |
|  | 十八                                                             | Unit 3: Hamlet Act 5 | Watch, read and discuss Act 5<br>Explore the culmination of the tragic elements, conflicts, and character resolutions<br>Discuss the role of fate and free will in the play |
|  | 十九                                                             |                      |                                                                                                                                                                             |
|  | 二十                                                             |                      |                                                                                                                                                                             |
|  | 二十一                                                            |                      |                                                                                                                                                                             |
|  | 二十二                                                            |                      |                                                                                                                                                                             |
|  | 學習評量： Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                      |                                                                                                                                                                             |
|  | 備註： 全英語授課                                                      |                      |                                                                                                                                                                             |

【備查版】

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| 課程名稱：   | 中文名稱： 英語文10：AP專題                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                      |
|         | 英文名稱： English 10: AP Seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                      |
| 授課年段：   | 一上、一下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數： 8                                                                                                                                                                                                                                                                                              |
| 課程屬性：   | 語文領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                      |
| 議題融入：   | 閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                      |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                      |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                      |
|         | B溝通互動： B1.符號運用與溝通表達、B2.科技資訊與媒體素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                      |
|         | C社會參與： C2.人際關係與團隊合作、C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                      |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                      |
| 學習目標：   | <p>Pose research questions and seek answers from multiple, divergent, and contradictory perspectives.</p> <p>Access, manage, and evaluate information using advanced search tools, and identify the information needed for context.</p> <p>Read critically, analyze perspectives, and evaluate the relevance and credibility of sources and evidence.</p> <p>Structure a coherent, well-reasoned argument, arranging claims and evidence logically to convey reasoning and relationships.</p> <p>Collect, evaluate, and strategically integrate evidence from diverse sources, attributing it accurately and ethically using proper citation styles.</p> <p>Synthesize information, identify patterns, and propose resolutions, conclusions, or solutions based on evidence.</p> <p>Acknowledge other arguments, address competing perspectives, and evaluate the influence of biases and assumptions.</p> <p>Communicate arguments effectively through writing, speaking, and multimedia presentations, adapting to audience, context, and purpose.</p> |                                                                                                                                                                                                                                                                                                      |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 單元/主題                                                                                                                                                                                                                                                                                                |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Introduction to QUEST                                                                                                                                                                                                                                                                        |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Introduction to QUEST                                                                                                                                                                                                                                                                        |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1:-Unit 2                                                                                                                                                                                                                                                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 內容綱要                                                                                                                                                                                                                                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Summer Reading Discussion: “Hope in the Dark”</p> <p>Review QUEST</p> <p>Read and annotate “Still I Rise” and “Sympathy”</p>                                                                                                                                                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Read, discuss, annotate, synthesize current events</p> <p>Identify common themes and conflicting perspectives</p> <p>Read, analyze and discuss “Activism in the social media age” and “The other side is not dumb”</p> <p>Analyze differences between research reports and persuasive essays.</p> |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Read, discuss, annotate, synthesize current events</p> <p>Identify common themes and conflicting perspectives</p> <p>Read, analyze and discuss “Activism in the social media age” and “The other side is not dumb”</p> <p>Analyze differences between research reports and persuasive essays</p>  |

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|   |                           | <p>Practice analyzing line of reasoning in “Letter from Birmingham Jail”</p> <p>Practice AP Exam part A – analyzing an argument using evidence</p> <p>Begin Long Way Down. Track a chosen theme (race, injustice, gender, or innocence) in dialectical journals.</p> <p>Read and analyze “Sonnet” by James Weldon Johnson. Discuss structure, complete hexagonal thinking exercise.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 四 | Unit 2: Long Way Down     | <p>Read “Hope is the Thing with Feathers.” Identify key textual moments in pairs and complete a commentary exercise.</p> <p>Watch CNN10. Choose an event related to Long Way Down themes, evaluate credibility, and summarize key issues. Introduce credibility, relevance, and limitations. Practice writing credibility statements.</p> <p>Read and annotate “Skeptics May Object” and practice counterargument skills using a T3 chart.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 五 | Unit 3: Things Fall Apart | <p>Develop group research questions based on themes from Long Way Down. Conduct research and create an annotated bibliography.</p> <p>Focus on presentation structure, APA formatting, and group collaboration strategies.</p> <p>Teams prepare and present group presentations. Film, self-critique, and peer review presentations using the AP Seminar rubric.</p> <p>Practice AP Exam Part B – building arguments from 2-4 sources</p> <p>Begin reading Things Fall Apart. Focus on themes like cultural conflict, identity, and the clash between tradition and colonialism. Students will annotate key passages, summarizing events and discussing Okonkwo’s character progression.</p> <p>Read and annotate “The Second Coming” by W.B. Yeats (which influenced Things Fall Apart). Discuss how the poem’s themes relate to the novel, particularly the concepts of chaos, change, and societal collapse.</p> <p>Read and annotate “No Man is An Island” by John Donne. Discuss the role of community in both the poem and the novel, then construct a thesis exploring how Ac</p> |
| 六 | Unit 3: Things Fall Apart | <p>Begin reading Things Fall Apart. Focus on themes like cultural conflict, identity, and the clash between tradition and colonialism. Students will annotate key passages, summarizing events and discussing Okonkwo’s character progression.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|   |                            | <p>Read and annotate “The Second Coming” by W.B. Yeats (which influenced Things Fall Apart). Discuss how the poem’s themes relate to the novel, particularly the concepts of chaos, change, and societal collapse.</p> <p>Read and annotate “No Man is An Island” by John Donne. Discuss the role of community in both the poem and the novel, then construct a thesis exploring how Achebe depicts the tension between individual desires and communal obligations.</p> <p>Close read MOCK stimulus materials. Identify purpose, arguments, and evidence related to themes of colonialism, cultural identity, and change. Write summary responses.</p> |
| 七 | Unit 3: Things Fall Apart  | <p>Develop a research question based on the themes of cultural conflict, identity, or ambition in Things Fall Apart. Use the stimulus texts to support arguments. Conduct research using peer-reviewed sources and create an annotated bibliography.</p> <p>Review research skills with a focus on credibility, bias, and perspectives. Use the QFT process to refine research questions.</p> <p>Draft and peer review the Individual Written Argument (IWA) on a theme from Things Fall Apart. Plan, present, and self-critique the presentations. Practice the oral defense, focusing on cultural conflicts and thematic analysis.</p>                |
| 八 | Unit 4: Performance Task 1 | <p>Students form teams of 3-5 and begin brainstorming potential real-world problems or academic issues to investigate.</p> <p>Teams develop a clear, focused research question, dividing responsibilities based on different lenses or approaches. Each team member investigates their assigned approach, gathering credible sources and synthesizing information relevant to their lens.</p> <p>Students compile an annotated bibliography of sources that will be shared with their team.</p>                                                                                                                                                         |
| 九 | Unit 4: Performance Task 1 | <p>Teach students how to structure their 1200-word IRR based on their specific lens and the AP Seminar rubric.</p> <p>Students begin writing their IRR, focusing on synthesizing sources and presenting a coherent argument.</p> <p>Students participate in peer review sessions within their teams, providing feedback on each other’s reports for clarity, evidence use, and coherence.</p> <p>Students revise their IRRs based on peer</p>                                                                                                                                                                                                           |



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|    |                            | <p>and teacher feedback, ensuring their approach aligns with the team's overall goal.</p> <p>Teams collaborate to integrate individual research into a cohesive 8-10 minute multimedia presentation, focusing on argument structure and supporting evidence.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 十  | Unit 4: Performance Task 1 | <p>Teams practice their presentations, receiving feedback from peers and the teacher on their delivery and the strength of their argument.</p> <p>Teams present their multimedia presentations and respond to questions during the oral defense, addressing limitations, implications, and different perspectives.</p> <p>Teams and individuals reflect on the process, discussing strengths, areas for improvement, and what they learned about collaboration and research.</p>                                                                                                                                                                                                                                          |
| 十一 | Unit 5: Performance Task 2 | <p>Introduce the three components: IWA, multimedia presentation, and oral defense. Discuss expectations and timeline. Review and analyze the College Board-provided stimulus materials. Begin discussing the central theme and perspectives.</p> <p>Use the QFT (Question Formulation Technique) process to help students develop a research question prompted by the stimulus material.</p> <p>Teach students how to use digital databases, focusing on finding scholarly, peer-reviewed sources. Review credibility, relevance, and bias (RAVEN method). Students begin gathering sources representing various perspectives that will support their research question. Create a preliminary annotated bibliography.</p> |
| 十二 | Unit 5: Performance Task 2 | <p>Students continue gathering additional sources, refining their research focus based on teacher feedback.</p> <p>Complete an annotated bibliography with at least 5 scholarly sources and the stimulus material, explaining how each source contributes to their research question. Teach students how to structure a 2000-word research argument, including an introduction, opposing views, resolutions, conclusions, and solutions.</p> <p>Students create detailed outlines for their IWA, organizing key points, evidence, and counterarguments.</p>                                                                                                                                                               |
| 十三 | Unit 5: Performance Task 2 | <p>Students begin writing the first draft of their IWA, ensuring they synthesize sources effectively and support their argument with a range of evidence. Emphasize the importance of presenting a</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|    |                                                              | <p>coherent and convincing argument, addressing counter arguments, and considering implications.</p> <p>Students participate in peer review sessions, providing constructive feedback on the clarity of arguments, evidence use, and structure.</p> <p>Students revise their IWAs based on peer and teacher feedback, focusing on clarity, argument strength, and integration of sources.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 十四 | Unit 5: Performance Task 2                                   | <p>Teach students how to create a 6-8 minute multimedia presentation. Focus on audience engagement strategies, visual media integration, and clarity of argument.</p> <p>Students begin drafting slides and practicing their presentations, receiving feedback from peers.</p> <p>Students finalize their multimedia presentations, rehearsing in front of the class or small groups. They also prepare for potential oral defense questions.</p> <p>Teach students how to effectively answer oral defense questions, focusing on defending their research process and argument.</p>                                                                                                                                                                                                                                                        |
| 十五 | Unit 5: Performance Task 2 Unit 6: End of Course Exam        | <p>Students deliver their 6-8 minute multimedia presentations and respond to two oral defense questions from the teacher.</p> <p>Students reflect on their performance, the research process, and their overall understanding of the project, discussing strengths and areas for improvement.</p> <p>Review the format of Part A, where students analyze an argument using evidence. Discuss key components such as identifying the claim, evaluating evidence, reasoning, and identifying rhetorical strategies.</p> <p>Students practice with sample texts, focusing on breaking down arguments and identifying strengths/weaknesses in reasoning and evidence.</p> <p>Conduct a timed practice session where students analyze an argument and write their response under exam conditions.</p> <p>Provide feedback on their analysis.</p> |
| 十六 | Unit 6: End of Course Exam Unit 7: Narrative Writing Project | <p>Review the format of Part B, where students must build their own argument using at least two of four provided sources. Discuss how to synthesize sources, identify perspectives, and create a coherent argument.</p> <p>Practice synthesizing arguments from multiple perspectives using sample sources. Focus on how to select relevant evidence and address counterarguments.</p> <p>Conduct a mock exam that includes both Part A and Part B. Review responses and</p>                                                                                                                                                                                                                                                                                                                                                                |

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|     |                                   | <p>provide targeted feedback to ensure students are ready for the exam.</p> <p>Begin by reading "How to Tell a Story" by Daniel McDermott (New York Times). Discuss key takeaways about storytelling techniques and narrative structure.</p> <p>Provide background of <i>Catcher in the Rye</i> and its themes of curiosity, identity, and personal growth. Begin reading the first few chapters, focusing on Holden Caulfield's voice and perspective.</p> <p>Introduce the narrative prompt (a moment of curiosity). Provide time for students to brainstorm and outline their personal narrative.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 十七  | Unit 7: Narrative Writing Project | <p>Students begin drafting their narrative about a moment of curiosity, focusing on developing voice, pacing, and character. Assign further reading, discussing Holden's curiosity and inner struggles with societal expectations and personal meaning. Students reflect on how these themes can relate to their own experiences.</p> <p>Students participate in peer review, focusing on narrative clarity, voice, and emotional resonance. Begin revisions based on feedback.</p> <p>Discuss Holden's development throughout <i>The Catcher in the Rye</i>, especially his internal conflict and how curiosity about adulthood shapes his actions. Compare this with the students' own narratives.</p> <p>Students begin drafting their narrative about a moment of curiosity, focusing on developing voice, pacing, and character. Assign further reading, discussing Holden's curiosity and inner struggles with societal expectations and personal meaning. Students reflect on how these themes can relate to their own experiences.</p> <p>Students participate in peer</p> |
| 十八  | Unit 7: Narrative Writing Project | <p>Teach students techniques for presenting their narratives (tone, expression, pacing). Students plan and rehearse their dramatic readings.</p> <p>Finish the novel and discuss the overall impact of Holden's journey. Focus on how Salinger uses voice to convey Holden's unique perspective and how curiosity influences his decisions.</p> <p>Students deliver their dramatic readings, focusing on engaging the audience and bringing out the emotional core of their stories.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 十九  |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 二十  |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 二十一 |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|       | 二十<br>二                                                       |  |  |
| 學習評量： | Exams 40%, Assignments/Homework 30%, Essays/Presentations 30% |  |  |
| 備註：   | 全英授課，此為一學年課程，1~9為上學期；10~18為下學期                                |  |  |

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| 課程名稱：   | 中文名稱：國語文10                                                                                                                                                         |                                                 |
|         | 英文名稱：Honors Chinese Language Arts                                                                                                                                  |                                                 |
| 授課年段：   | 一上、一下                                                                                                                                                              | 學分總數：8                                          |
| 課程屬性：   | 語文領域                                                                                                                                                               |                                                 |
| 議題融入：   | 性別平等、人權、品德、生命、法治、科技、資訊、家庭教育、閱讀素養                                                                                                                                   |                                                 |
| 師資來源：   | 校內單科                                                                                                                                                               |                                                 |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                                                       |                                                 |
|         | B溝通互動：B1.符號運用與溝通表達、B2.科技資訊與媒體素養、B3.藝術涵養與美感素養                                                                                                                       |                                                 |
|         | C社會參與：C1.道德實踐與公民意識、C2.人際關係與團隊合作、C3.多元文化與國際理解                                                                                                                       |                                                 |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                     |                                                 |
| 學習目標：   | 1.統整文本的意義和規律，培養思辨及系統思維的能力。<br>2.培養自我省思能力，從中發展應對人生問題的行事法則。<br>3.表達自我的經驗、理念與情意，並學會從他人的角度思考問題，尋求共識。<br>4.理解文本內涵，認識文學表現技法，進行實際創作。<br>5.善用科技、資訊與各類媒體所提供的素材，進行閱讀思考，整合資訊。 |                                                 |
| 教學大綱：   | 週次/序                                                                                                                                                               | 單元/主題                                           |
|         | 一                                                                                                                                                                  | 第1課<br>〈桃花源記〉作者、題解<br>課文探討與延伸(快樂好遠—理想世界思辨)      |
|         | 二                                                                                                                                                                  | 第2課<br>〈再別康橋〉作者、題解<br>課文探討與延伸(愛情好美—情詩賞析)        |
|         | 三                                                                                                                                                                  | 第3課<br>〈樂府古詩選〉作者、題解<br>課文探討與延伸(音樂好聽—尋找撥動心中的那根弦) |
|         | 四                                                                                                                                                                  | 第9課<br>〈髻〉作者、題解<br>課文探討與延伸(行銷好難—吸睛文案撰寫)         |
|         | 五                                                                                                                                                                  | 第10課<br>〈項脊軒志〉作者、題解<br>課文探討與延伸(失去好痛—改變與轉化)      |
|         | 六                                                                                                                                                                  | 第7課<br>〈范進中舉〉作者、題解<br>課文探討與延伸(讀書好苦—「看」我魯蛇的逆襲)   |
|         | 七                                                                                                                                                                  | 第8課<br>〈孔乙己〉作者、題解<br>課文探討與延伸(改變好久—SWOT分析)       |
|         | 八                                                                                                                                                                  | 第4課<br>〈小王子與狐狸〉作者、題解<br>課文探討與延伸(長大好累—解憂雜貨店的一封信) |
|         | 九                                                                                                                                                                  | 主題報告<br>主題報告探究、發表                               |
|         | 十                                                                                                                                                                  | 第1課<br>〈醉翁亭記〉作者、題解<br>課文探討與延伸(馬斯洛需求理論)          |
|         | 十一                                                                                                                                                                 | 第3課<br>〈晚遊六橋待月記〉作者、題解<br>課文探討與延伸(羊群效應)          |
|         | 十二                                                                                                                                                                 | 第4課<br>〈玉山去來〉作者、題解                              |
|         | 十三                                                                                                                                                                 | 第6課<br>〈唐宋詩選〉作者、題解<br>課文探討與延伸(報導文學)             |
|         | 十四                                                                                                                                                                 | 第9課<br>〈天才夢〉作者、題解<br>課文探討與延伸(自傳書寫)              |
|         | 十五                                                                                                                                                                 | 第7課<br>〈一桿稱子〉作者、題解<br>課文探討與延伸(SDGs消除貧窮)         |
|         | 十六                                                                                                                                                                 | 第8課<br>〈台灣女性古典詩選〉作者、題解<br>課文探討與延伸(女性主義)         |

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|       | 十七  | 第10課                               | 〈劉姥姥進大觀園〉作者、題解<br>課文探討與延伸(紅學初探) |
|       | 十八  | 主題報告                               | 主題報告探究、發表                       |
|       | 十九  |                                    |                                 |
|       | 二十  |                                    |                                 |
|       | 二十一 |                                    |                                 |
|       | 二十二 |                                    |                                 |
| 學習評量： |     | 除紙筆測驗外，含課堂觀察、討論、指定作業(學習單等)、主題報告研究。 |                                 |
| 備註：   |     | 本課程為一學年課程，1~9為上學期課程、10~18為下學期課程。   |                                 |

【備查版】



|         |                                                                                                                                                                                         |                                                                                              |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：探索課程_想望海洋                                                                                                                                                                          |                                                                                              |
|         | 英文名稱：Adventure Education-Longing for the sea                                                                                                                                            |                                                                                              |
| 授課年段：   | 一上                                                                                                                                                                                      | 學分總數：1                                                                                       |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                                                                             |                                                                                              |
| 議題融入：   | 環境、海洋、科技、能源、安全、戶外教育                                                                                                                                                                     |                                                                                              |
| 師資來源：   | 校內單科                                                                                                                                                                                    |                                                                                              |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                                                                            |                                                                                              |
|         | B溝通互動：B2.科技資訊與媒體素養                                                                                                                                                                      |                                                                                              |
|         | C社會參與：C1.道德實踐與公民意識、C2.人際關係與團隊合作                                                                                                                                                         |                                                                                              |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                 |                                                                                              |
| 學習目標：   | 1.瞭解台灣海洋環境現況，思考適當利用和過度開發的分際，兼顧管理和保育的概念。<br>2.學習獨木舟水上活動的安全、裝備和操作技能，學會判斷水域是否安全，是否適合下水航行。<br>3.瞭解海洋垃圾來源及生成原因，海洋環境汙染對生態造成的影響，自覺如何從自身做起，減少廢棄物的產生。<br>4.瞭解經濟發展與環境保護之間的關係，除了零和關係之外，是否有永續發展的可能。 |                                                                                              |
| 教學大綱：   | 週次/序                                                                                                                                                                                    | 單元/主題                                                                                        |
|         | 一                                                                                                                                                                                       | 獨木舟發展概論                                                                                      |
|         | 二                                                                                                                                                                                       | 獨木舟的結構與流體力學                                                                                  |
|         | 三                                                                                                                                                                                       | 海象水文與天候判斷                                                                                    |
|         | 四                                                                                                                                                                                       | 裝備介紹與使用                                                                                      |
|         | 五                                                                                                                                                                                       | 基本操舟法                                                                                        |
|         | 六                                                                                                                                                                                       | 基本操舟法                                                                                        |
|         | 七                                                                                                                                                                                       | 獨木舟翻船覆位                                                                                      |
|         | 八                                                                                                                                                                                       | 獨木舟輕旅行                                                                                       |
|         | 九                                                                                                                                                                                       | 獨木舟輕旅行                                                                                       |
|         | 十                                                                                                                                                                                       | 獨木舟輕旅行                                                                                       |
|         | 十一                                                                                                                                                                                      | 台灣海洋環境現況介紹                                                                                   |
|         | 十二                                                                                                                                                                                      | 守護海洋母親                                                                                       |
|         |                                                                                                                                                                                         | 內容綱要                                                                                         |
|         |                                                                                                                                                                                         | 獨木舟的發展歷史，海洋舟和平台舟的差異及適合航行的水域介紹。                                                               |
|         |                                                                                                                                                                                         | 認識目前市面上多款獨木舟的結構和各部件的特性，在不同的水域的表現程度與狀況，依照所處水域選擇適合的獨木舟。                                        |
|         |                                                                                                                                                                                         | 學習根據中央氣象局資料、公開資訊等，綜合評估當地的水文、海浪與天候狀況，是否適合進行獨木舟活動。                                             |
|         |                                                                                                                                                                                         | 獨木舟活動所需的各項使用的安全裝備和器具，瞭解使用的方法和相關安全規範。                                                         |
|         |                                                                                                                                                                                         | 學習正確的持槳方式，平穩上、下舟的方法，基礎重心平衡技巧，雙人操舟搭配方式和前進與後退的方法。                                              |
|         |                                                                                                                                                                                         | 學習正確的持槳方式，平穩上、下舟的方法，基礎重心平衡技巧，雙人操舟搭配方式和前進與後退的方法。                                              |
|         |                                                                                                                                                                                         | 航行時翻船的處理方式、人船脫離與復位動作；練習雙人協同模式、單人復位模式。                                                        |
|         |                                                                                                                                                                                         | 航行時翻船的處理方式、人船脫離與復位動作；練習雙人協同模式、單人復位模式。                                                        |
|         |                                                                                                                                                                                         | 航行時翻船的處理方式、人船脫離與復位動作；練習雙人協同模式、單人復位模式。                                                        |
|         |                                                                                                                                                                                         | 了解台灣的海洋環境現況、台灣人民與海洋之間的關係，從自身的生活經驗思考和海洋有什麼連結。                                                 |
|         |                                                                                                                                                                                         | 透過撿拾海岸沿線的廢棄物，瞭解台灣海洋發生了什麼事，以ICC表格的填寫，讓淨灘不只是將海岸線上的垃圾撿拾乾淨，而是一個全國性的海洋廢棄物數據搜集的公民參與，更能夠瞭解海洋廢棄物的組成。 |

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|       | 十三  | 守護海洋母親                                  | 透過撿拾海岸沿線的廢棄物，瞭解台灣海洋發生了什麼事，以ICC表格的填寫，讓淨灘不只是將海岸線上的垃圾撿拾乾淨，而是一個全國性的海洋廢棄物數據搜集的公民參與，更能夠瞭解海洋廢棄物的組成。 |
|       | 十四  | ICC海洋垃圾分類                               | 透過ICC表格進行分類，海洋廢棄物數據搜集的公民參與，更能夠瞭解海洋廢棄物的組成。                                                    |
|       | 十五  | 海廢創作                                    | 將撿拾的海洋廢棄物，經過清洗、整理和設計，以不同的角度讓它有新的生命和價值，取代拋棄和污染。                                               |
|       | 十六  | 海廢創作                                    | 將撿拾的海洋廢棄物，經過清洗、整理和設計，以不同的角度讓它有新的生命和價值，取代拋棄和污染。                                               |
|       | 十七  | 經濟發展與環境議題                               | 大潭藻礁、觀音草漯沙丘實地踏查當地的地形與地貌，理解經濟發展與環境保護之間的考量與權衡，思辯其中的價值與意義。                                      |
|       | 十八  | 經濟發展與環境議題                               | 大潭藻礁、觀音草漯沙丘實地踏查當地的地形與地貌，理解經濟發展與環境保護之間的考量與權衡，思辯其中的價值與意義。                                      |
|       | 十九  |                                         |                                                                                              |
|       | 二十  |                                         |                                                                                              |
|       | 二十一 |                                         |                                                                                              |
|       | 二十二 |                                         |                                                                                              |
| 學習評量： |     | 參與及學習態度 40%，成果報告 30%，學習回饋表 20%，作品評鑑 10% |                                                                                              |
| 備註：   |     |                                         |                                                                                              |

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| 課程名稱：   | 中文名稱：Biology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                         |
|         | 英文名稱：Biology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                         |
| 授課年段：   | 一下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 學分總數：4                                                                                  |
| 課程屬性：   | 自然科學領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                         |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                         |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                         |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                         |
|         | B溝通互動：B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
|         | C社會參與：C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                         |
| 學習目標：   | <ul style="list-style-type: none"> <li>• Employ the scientific method to answer questions about the natural world.</li> <li>• Describe how the structure of living things, from molecules within cells to the largest unit of an ecosystem, impacts their function.</li> <li>• Explain how DNA controls cellular processes that code for the variety of traits of each unique individual and predict how those traits are passed on from one generation to the next.</li> <li>• Describe why homeostasis is important for the health and the survival of an individual and provide examples of homeostatic mechanisms.</li> <li>• Explain the mechanism for evolution and describe how it leads to changes in species over time.</li> <li>• Illustrate how energy flows through ecosystems while nutrients are recycled.</li> <li>• Discuss why biodiversity is important for the sustainability of our biome.</li> <li>• Evaluate the impact of humans on the health of the ecosystems on Earth.</li> </ul> |                                                                                         |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 單元/主題                                                                                   |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 1<br>Introduction to Biology<br>What is Life?                                      |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 2<br>Chemistry of Life<br>The importance of Water                                  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 3<br>Macromolecules<br>Chemical Reactions and Enzymes                              |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 4<br>Introduction to Cell Structure and Function<br>Cell Transport and Homeostasis |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 5<br>Homeostasis<br>Photosynthesis                                                 |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 6<br>Cellular Respiration<br>Respiratory and Circulatory System                    |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 7<br>Cell Growth and Division<br>Meiosis                                           |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 8<br>Inheritance<br>Non-Mendelian Genetics, and disorders                          |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit 9<br>DNA<br>RNA and Protein Synthesis                                              |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Review Unit 1-Unit 9<br>Questions and discussion                                        |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 10<br>Gene Regulation and Expression<br>Genetic Disorders<br>Biotechnology         |

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|-------|----------------------------------------------------------|---------|-------------------------------------------------------------------------------|
|       | 十二                                                       | Unit 11 | The Theory of Evolution<br>Evidence for Evolution<br>Evolution of Populations |
|       | 十三                                                       | Unit 12 | Biodiversity and Classification<br>Evolutionary Patterns and Processes        |
|       | 十四                                                       | Unit 13 | Global Organization of Life<br>Ecosystems and Energy Flow                     |
|       | 十五                                                       | Unit 14 | Populations<br>Communities and Ecosystem Dynamics                             |
|       | 十六                                                       | Unit 15 | Humans Impacts<br>Conservation and Sustainability                             |
|       | 十七                                                       | Project | Project and Presentation                                                      |
|       | 十八                                                       | Wrap Up | Questions and discussion                                                      |
|       | 十九                                                       |         |                                                                               |
|       | 二十                                                       |         |                                                                               |
|       | 二十一                                                      |         |                                                                               |
|       | 二十二                                                      |         |                                                                               |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |         |                                                                               |
| 備註：   | 全英語授課                                                    |         |                                                                               |

|         |                                                                                                                                                                       |         |                                                               |
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| 課程名稱：   | 中文名稱： 探索課程_海洋之心                                                                                                                                                       |         |                                                               |
|         | 英文名稱： Adventure Education-Heart of the sea                                                                                                                            |         |                                                               |
| 授課年段：   | 一下                                                                                                                                                                    | 學分總數： 1 |                                                               |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                                                           |         |                                                               |
| 議題融入：   | 人權、環境、海洋、生命、安全、防災、戶外教育                                                                                                                                                |         |                                                               |
| 師資來源：   | 校內單科                                                                                                                                                                  |         |                                                               |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進、A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                                                         |         |                                                               |
|         | B溝通互動： B2.科技資訊與媒體素養                                                                                                                                                   |         |                                                               |
|         | C社會參與： C1.道德實踐與公民意識、C2.人際關係與團隊合作                                                                                                                                      |         |                                                               |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                        |         |                                                               |
| 學習目標：   | 1.知道過度捕撈對海洋環境及經濟活動的影響，進而影響人類的生存（SDGs-14）。<br>2.透過魚鮮烹煮課程，認識食魚文化和充分利用食材不浪費（SDGs-12）。<br>3.運用現有科技和公開的氣象資料，加上實地觀察，認識海洋活動安全與迴避風險。<br>4.進行獨木舟進階課程-海洋獨木舟活動，體認安全的進行海上運動和相關準備。 |         |                                                               |
| 教學大綱：   | 週次/序                                                                                                                                                                  | 單元/主題   | 內容綱要                                                          |
|         | 一                                                                                                                                                                     | 永續海鮮    | 有智慧的使用海洋資源，不要竭澤而漁，以對海洋生態環境友善的方式撈捕，認識不同的撈捕方式對海洋的傷害程度。          |
|         | 二                                                                                                                                                                     | 永續海鮮    | 有智慧的使用海洋資源，不要竭澤而漁，以對海洋生態環境友善的方式撈捕，認識不同的撈捕方式對海洋的傷害程度。          |
|         | 三                                                                                                                                                                     | 好魚慢食    | 學習海鮮的選購和新鮮度判別，營養階層在生態系扮演的角色，選擇適當的海鮮，進行魚貨分解與烹調。                |
|         | 四                                                                                                                                                                     | 好魚慢食    | 學習海鮮的選購和新鮮度判別，營養階層在生態系扮演的角色，選擇適當的海鮮，進行魚貨分解與烹調。。               |
|         | 五                                                                                                                                                                     | 好魚慢食    | 學習海鮮的選購和新鮮度判別，營養階層在生態系扮演的角色，選擇適當的海鮮，進行魚貨分解與烹調。                |
|         | 六                                                                                                                                                                     | 漁人的榮耀   | 藉由分組模擬漁船公司，彼此競爭海洋資源，並將結果化為數字，當中穿插「協商和競標」，親身體會共有財-海洋資源是如何快速枯竭。 |
|         | 七                                                                                                                                                                     | 漁人的榮耀   | 藉由分組模擬漁船公司，彼此競爭海洋資源，並將結果化為數字，當中穿插「協商和競標」，親身體會共有財-海洋資源是如何快速枯竭。 |
|         | 八                                                                                                                                                                     | 南方澳小旅行  | 透過導覽、生態環境解說和漁港踏查，深入瞭解南方澳的過去與現在，觀察在地文化和生活方式，理解差異。              |
|         | 九                                                                                                                                                                     | 南方澳小旅行  | 透過導覽、生態環境解說和漁港踏查，深入瞭解南方澳的過去與現在，觀察在地文化和生活方式，理解差異。              |
|         | 十                                                                                                                                                                     | 南方澳小旅行  | 透過導覽、生態環境解說和漁港踏查，深入瞭解南方澳的過去與現在，觀察在地文化和生活方式，理解差異。              |
|         | 十一                                                                                                                                                                    | 海洋安全教育  | 運用手機APP和氣象資料，學習透過相關資訊來判斷適合進行海洋活動的天候環境，學習預判風險和迴避。              |
|         | 十二                                                                                                                                                                    | 海洋安全教育  | 運用手機APP和氣象資料，學習透過相關資訊來判斷適合進行海洋活動的天候環境，學習預判風                   |



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|                                               |          | 險和迴避。                                                            |
| 十三                                            | 離岸流、進出浪區 | 認識沿岸「離岸流」的風險及實地判斷，知道如何脫困；學會判斷獨木舟適合出海的浪區，以及進出岸的方法以避免發生危險。         |
| 十四                                            | 離岸流、進出浪區 | 認識沿岸「離岸流」的風險及實地判斷，知道如何脫困；學會判斷獨木舟適合出海的浪區，以及進出岸的方法以避免發生危險。         |
| 十五                                            | 海洋獨木舟    | 複習獨木舟的安全裝備、操舟方式和翻船復位彼此協同的方法，進行沿海岸的獨木舟旅行，以不同的視角認識海洋和陸地，學習安全的海洋活動。 |
| 十六                                            | 海洋獨木舟    | 複習獨木舟的安全裝備、操舟方式和翻船復位彼此協同的方法，進行沿海岸的獨木舟旅行，以不同的視角認識海洋和陸地，學習安全的海洋活動。 |
| 十七                                            | 海洋獨木舟    | 複習獨木舟的安全裝備、操舟方式和翻船復位彼此協同的方法，進行沿海岸的獨木舟旅行，以不同的視角認識海洋和陸地，學習安全的海洋活動。 |
| 十八                                            | 海洋獨木舟    | 複習獨木舟的安全裝備、操舟方式和翻船復位彼此協同的方法，進行沿海岸的獨木舟旅行，以不同的視角認識海洋和陸地，學習安全的海洋活動。 |
| 十九                                            |          |                                                                  |
| 二十                                            |          |                                                                  |
| 二十一                                           |          |                                                                  |
| 二十二                                           |          |                                                                  |
| 學習評量：參與及學習態度 40%，學習成果報告 40%，學習回饋表 10%，同儕互評10% |          |                                                                  |
| 備註：                                           |          |                                                                  |



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| 課程名稱：   | 中文名稱： AP Physics 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|         | 英文名稱： AP Physics 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 授課年段：   | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 學分總數： 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 課程屬性：   | 自然科學領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 議題融入：   | 環境、科技                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|         | B溝通互動： B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|         | C社會參與： C2.人際關係與團隊合作                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 學習目標：   | <p>Use representations and models to communicate physics phenomena and solve physics problems.</p> <p>Use mathematics appropriately to calculate unknown physics values and support physics principles.</p> <p>Engage in scientific questioning to extend thinking or to guide investigations within the context of the AP Physics 1 curriculum.</p> <p>Plan and implement data collection strategies in relation to a particular scientific question and perform data analysis and evaluation of evidence.</p> <p>Articulate scientific explanations and theories and justify claims with evidence.</p> <p>Connect and relate knowledge across various scales, concepts and representations in and across domains of physics.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 單元/主題                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Introduction to AP Physics 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Introduction to Motion, Measurement and Models                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Introduction to Motion, Measurement and Models                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 內容綱要                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Understand the rules and policies of the course, and expectations of a contributing member of the class.</p> <p>Begin to build community by sharing important and interesting information with the teacher and classmates.</p> <p>Develop skills for navigating the course environment and using the various course tools.</p>                                                                                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Draw and interpret motion diagrams to represent motion using the particle model.</p> <p>Describe motion in terms of position, displacement and velocity.</p> <p>Calculate the speed and velocity of an object.</p> <p>Identify fundamental SI units used for measuring standard quantities, express quantities using correct units and convert units from one set to another.</p> <p>Use scientific notation, express quantities and perform calculations using correct significant digits.</p> |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Check algebraic results using dimensional analysis.</p> <p>Distinguish vector and scalar quantities and understand conceptually how vectors are added using the "tip-to-tail" method.</p> <p>Explain how vectors can be used to describe the displacement and velocity of an object.</p>                                                                                                                                                                                                        |

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|   |                                   | Use significant digits to track uncertainties in measurements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 四 | Introduction to Kinematics        | <p>Define and explain the relationships among distance, displacement, instantaneous velocity, average velocity and average speed.</p> <p>Calculate the average speed and average velocity of an object.</p> <p>Describe uniform motion (constant velocity) using narrative, mathematical and graphical representations.</p>                                                                                                                                                                                                                           |
| 五 | Introduction to Kinematics        | <p>Define acceleration and explain its relationship to velocity.</p> <p>Create and interpret position-time and velocity-time graphs.</p> <p>Calculate the acceleration of an object and determine and interpret the sign of acceleration.</p>                                                                                                                                                                                                                                                                                                         |
| 六 | Kinematics- Constant Acceleration | <p>Describe linear, uniformly accelerated motion using narrative, mathematical and graphical representations.</p> <p>Solve linear motion, constant acceleration problems given a description of motion in the form of words, data or graphs.</p> <p>Solve multi-part problems where an object's motion changes over a given time interval.</p>                                                                                                                                                                                                        |
| 七 | Kinematics- Constant Acceleration | <p>Describe the motion of an object in free-fall using narrative, motion diagrams, motion graphs and equations.</p> <p>Use the problem-solving approach to solve problems for objects in free fall.</p> <p>Explain under what conditions an object is in free fall.</p> <p>Describe how to multiply a vector by a scalar.</p>                                                                                                                                                                                                                         |
| 八 | Vectors and 2D Motion             | <p>Apply graphical methods to perform vector addition and subtraction.</p> <p>Sketch the components of a vector on a coordinate system and calculate components using trigonometry.</p> <p>Perform vector addition and subtraction using algebraic methods (components).</p> <p>Recognize the difference between one- and two-dimensional motion.</p> <p>Use vectors and vector components to analyze and solve problems for the motion of an object on a ramp.</p> <p>Collect and analyze position and velocity data for an object in free-fall.</p> |
| 九 | Projectile and Relative Motion    | <p>Identify the key features of projectile motion.</p> <p>Use vector components to decompose projectile motion problems into related horizontal and vertical motion problems.</p> <p>Solve problems involving projectile motion.</p> <p>Use vectors to illustrate and solve relative motion problems.</p>                                                                                                                                                                                                                                             |

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| 十  | Unit 1: Kinematics Review Week     | Unit 1: Kinematics Review Week                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 十一 | Forces and Newton's Laws of Motion | Describe a force as an interaction between 2 objects and identify the interacting objects for any force.<br>Distinguish long-range and contact forces.<br>Apply Newton's three laws of motion to predict and explain the motion of objects.<br>Distinguish between force diagrams and free-body diagrams.                                                                                                                                                                    |
| 十二 | Forces and Newton's Laws of Motion | Recognize and identify the forces acting on an object; construct force and free-body diagrams.<br>Articulate the connection between force and motion.<br>Identify Action/Reaction pairs of forces on interacting objects.                                                                                                                                                                                                                                                    |
| 十三 | Applying Newton's Laws: Part 1     | Distinguish between static and dynamic equilibrium and solve dynamics problems for an object in equilibrium.<br>Describe the relationship between friction and the normal force.<br>Explain the microscopic causes of friction.<br>Use free-body diagrams and Newton's second law to solve dynamics problems.                                                                                                                                                                |
| 十四 | Applying Newton's Laws: Part 1     | Solve problems involving sliding, rolling and static friction.<br>Recognize the distinctions among mass, weight, and inertia.<br>Distinguish inertial and gravitational mass.<br>Explain "apparent weight" and solve for an object's apparent weight.                                                                                                                                                                                                                        |
| 十五 | Applying Newton's Laws: Part 2     | Discuss the factors that affect air resistance and understand how and why a falling object reaches terminal velocity.<br>Use Newton's third law to identify forces and to solve "coupled mass" problems where two or more objects interact.<br>Describe the properties of tension in a rope, string or cable.<br>Solve problems involving ropes and pulleys.                                                                                                                 |
| 十六 | Uniform Circular Motion            | Calculate period, frequency and speed for objects in circular motion.<br>Identify the direction of velocity, acceleration and net force for objects in circular motion.<br>Use Newton's laws to solve dynamics problems for objects in uniform circular motion.<br>Solve for the minimum or maximum speed at which an object can move and still maintain its circular path for various scenarios.<br>Solve for the apparent weight of an object moving in a vertical circle. |
| 十七 | Gravity and Orbits                 | Use Newton's law of gravity to describe and calculate the gravitational force that                                                                                                                                                                                                                                                                                                                                                                                           |

|     |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|     |                                        | <p>two objects.<br/>Use the law of universal gravitation to analyze the circular orbits of satellites and planets.<br/>Derive the expression for the critical speed of a satellite using Newton's second law and the law of gravity.<br/>Explain what is meant by a gravitational field and calculate gravitational force from the field vector.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 十八  | Unit 2: Review and Exam Week           | Unit 2: Review and Exam Week                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 十九  | Introduction to Energy                 | <p>Explain what it means for a quantity to be conserved.<br/>Understand the basic energy model, including conservation of energy, energy transformations within a system and energy transfers between a system and the environment.<br/>Identify the forms of energy that are important in mechanical motion and describe energy transformations that take place in a variety of scenarios.<br/>Articulate the connection between thermal energy and the microscopic kinetic and potential energies of the particles in an object.<br/>Explain the relationship between work and the energy transferred to and from a system.<br/>Describe the conditions that must be met for work to be done on an object, distinguish positive and negative work and calculate the work done by a force.</p> |
| 二十  | Potential Energy & Conservative Forces | <p>Distinguish conservative and non-conservative forces and describe the properties of each.<br/>Use the definition of work to show that the work done by a conservative force is independent of path.<br/>Explain the meaning of potential energy and how conservative interactions (such as those described by the gravitational and spring force) give rise to changes in potential energy.</p>                                                                                                                                                                                                                                                                                                                                                                                              |
| 二十一 | Potential Energy & Conservative Forces | <p>Recognize that kinetic energy can be associated with a single object while potential energy is a property associated only with a system of interacting objects. Describe the factors that determine gravitational and elastic potential energy and calculate the potential energy of a system.<br/>Define mechanical energy and calculate the total mechanical energy of an object or system.<br/>Describe the transformations of energy that take place in a system in which mechanical energy is conserved.</p>                                                                                                                                                                                                                                                                            |
| 二十二 | Conservation of Energy                 | Explain the relationship between thermal energy and the temperature of an object.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|       |  | <p>Use energy diagrams (LOL) to track the energy transformations within a system, and the energy transfers between a system and its environment.</p> <p>Recognize that the work done by dissipative forces such as friction or drag results in changes in thermal energy, and calculate the changes in thermal energy, both internal and external to a system.</p> |
| 學習評量： |  |                                                                                                                                                                                                                                                                                                                                                                    |
| 備註：   |  |                                                                                                                                                                                                                                                                                                                                                                    |

【備查版】

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|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： AP世界歷史                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|         | 英文名稱： AP World History: Modern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 授課年段：   | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 學分總數： 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 課程屬性：   | 社會領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 議題融入：   | 性別平等、人權、生命、法治、多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|         | B溝通互動：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|         | C社會參與： C1.道德實踐與公民意識、C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 學習目標：   | <p>Constructing and evaluating arguments, using evidence to make plausible arguments. Using documents and other primary data: developing the skills necessary to analyze point of view, context and bias, and to understand and interpret information. Developing the ability to assess issues of change and continuity over time. Enhancing the capacity to handle diversity of interpretations through analysis of context, bias, and frame of reference.</p> <p>Seeing global patterns over time and space, while acquiring the ability to connect local developments to global ones and to move through levels of generalizations from the global to the particular.</p> <p>Developing the ability to compare within and among societies, including comparing societies' reactions to global processes.</p> <p>Developing the ability to assess claims of universal standards, yet remaining aware of human commonalities and differences;</p> <p>Putting culturally diverse ideas and values in historical context, not by suspending judgment, but by developing</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit1:The Global Tapestry (politic)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit1:The Global Tapestry (politic)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit1:The Global Tapestry (social)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit1:The Global Tapestry (cultural)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2:Networks of Exchange                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>You'll explore how states formed, expanded, and declined in areas of the world during the period c. 1200 - c. 1450 and the related political, social, and cultural developments of that time.</p> <p>You'll explore how states formed, expanded, and declined in areas of the world during the period c. 1200 - c. 1450 and the related political, social, and cultural developments of that time.</p> <p>You'll explore how states formed, expanded, and declined in areas of the world during the period c. 1200 - c. 1450 and the related political, social, and cultural developments of that time.</p> <p>You'll explore how states formed, expanded, and declined in areas of the world during the period c. 1200 - c. 1450 and the related political, social, and cultural developments of that time.</p> <p>As you continue your study of the period c. 1200 - c. 1450, you'll learn how areas of the world were linked through trade and how these connections affected people, cultures, and environments.</p> |



|    |                                       |                                                                                                                                                                                                     |
|----|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 六  | Unit 2:Networks of Exchange           | As you continue your study of the period c. 1200 - c. 1450, you' ll learn how areas of the world were linked through trade and how these connections affected people, cultures, and environments.   |
| 七  | Unit 2:Networks of Exchange           | As you continue your study of the period c. 1200 - c. 1450, you' ll learn how areas of the world were linked through trade and how these connections affected people, cultures, and environments.   |
| 八  | Unit 2:Networks of Exchange           | As you continue your study of the period c. 1200 - c. 1450, you' ll learn how areas of the world were linked through trade and how these connections affected people, cultures, and environments.   |
| 九  | Unit 2:Networks of Exchange           | As you continue your study of the period c. 1200 - c. 1450, you' ll learn how areas of the world were linked through trade and how these connections affected people, cultures, and environments.   |
| 十  | Review                                | Unit1 and Unit 2                                                                                                                                                                                    |
| 十一 | Unit 3: Land-Based Empires            | You' ll begin your study of the period c. 1450 - c. 1750 with an exploration of the empires that held power over large contiguous areas of land.                                                    |
| 十二 | Unit 3: Land-Based Empires            | You' ll begin your study of the period c. 1450 - c. 1750 with an exploration of the empires that held power over large contiguous areas of land.                                                    |
| 十三 | Unit 3: Land-Based Empires            | You' ll begin your study of the period c. 1450 - c. 1750 with an exploration of the empires that held power over large contiguous areas of land.                                                    |
| 十四 | Unit 3: Land-Based Empires            | You' ll begin your study of the period c. 1450 - c. 1750 with an exploration of the empires that held power over large contiguous areas of land.                                                    |
| 十五 | Unit 4: Transoceanic Interconnections | Continuing your study of the period c. 1450 - c. 1750, you' ll learn about advances in ocean exploration, the development of new maritime empires, and the effects of new cross-cultural encounters |
| 十六 | Unit 4: Transoceanic Interconnections | Continuing your study of the period c. 1450 - c. 1750, you' ll learn about advances in ocean exploration, the development of new maritime empires, and the effects of new cross-cultural encounters |
| 十七 | Unit 4: Transoceanic Interconnections | Continuing your study of the period c. 1450 - c. 1750, you' ll learn about advances in ocean exploration, the development of new maritime empires, and the effects of new cross-cultural encounters |
| 十八 | Review                                | Unit3 and Unit 4                                                                                                                                                                                    |
| 十九 |                                       |                                                                                                                                                                                                     |

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|       | 二十                           |  |  |
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英授課                         |  |  |

【備查版】

【備查版】

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| 課程名稱：   | 中文名稱：AP英語語言與作文                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|         | 英文名稱：AP English Language and Composition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 授課年段：   | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數：8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 課程屬性：   | 語文領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 議題融入：   | 多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|         | B溝通互動：B1.符號運用與溝通表達、B2.科技資訊與媒體素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|         | C社會參與：C2.人際關係與團隊合作、C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 學習目標：   | <p>Analyze rhetorical situations by explaining how writers' choices regarding audience, purpose, and context influence the effectiveness of their argument. Identify and explain claims and evidence in nonfiction texts, understanding how authors construct arguments and support them with relevant evidence. Write arguments with clear claims and supporting evidence, using logical reasoning and well-chosen examples to support assertions in argumentative essays. Evaluate reasoning and organization in written arguments, describing how an author develops and structures their ideas to advance their overall argument. Make strategic writing choices to address a rhetorical situation, ensuring that the purpose, audience, and tone are aligned throughout the writing process. Synthesize information from multiple sources to write an argumentative essay, integrating evidence from diverse texts while maintaining a clear line of reasoning.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 單元/主題                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Author and Audience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Author and Audience<br>Unit 2: Claim, Evidence and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Read Chapter 1 from Everyday Use: Rhetoric at Work in Reading and Writing. Discuss the rhetorical triangle and rhetorical situation</p> <p>Break into groups to identify and discuss claims, evidence, and commentary from the summer reading book. Develop a group paragraph and individually expand it with an additional claim, evidence, and commentary.</p> <p>Submit and discuss reflections on the summer reading book. Use the rhetorical triangle to analyze President George W. Bush's "9/11 Speech."</p> <p>Research key allusions from Malala Yousafzai's United Nations speech. Report findings to the class.</p> <p>Listen to Malala's speech while following the transcript. Analyze the rhetorical situation, focusing on exigence, audience, and rhetorical strategies</p> <p>Work in groups to draft a paragraph analyzing one element of the rhetorical situation, using claim, evidence, and commentary. Peer-edit paragraphs and revise based on feedback.</p> <p>Complete the AP Classroom Personal Progress Check for Unit 1</p> |

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|   | Commentary                                                                  | <p>Use Groucho Marx' s letter, essays from Mengestu and Putnam, and excerpts from Maya Angelou and Frank McCourt to further analyze rhetorical strategies.</p> <p>Begin by reading The Crucible and background materials on the Salem Witch Trials. Discuss the causes and effects of characters' actions, focusing on how identity plays a role in their motivations</p> <p>Read "Arm Wrestling with My Father" by Brad Manning and "Gender in the Classroom" by Deborah Tannen. In groups, identify claims, evidence, and commentary</p>                                                                                                                                        |
| 三 | Unit 1: Author and Audience                                                 | <p>Continue reading The Crucible and read selections on identity. In groups, analyze the rhetorical situation, primary/secondary audiences, and structure of arguments in various articles</p> <p>Write a thesis statement based on one of the identity-related articles, ensuring it previews the structure of the argument</p> <p>Write a paragraph that demonstrates understanding of the audience' s beliefs, values, or needs, integrating claims, evidence, and commentary</p> <p>Analyze the use of rhetorical appeals (ethos, logos, pathos) in The Crucible and in articles, focusing on how they connect to the identity theme</p>                                      |
| 四 | Unit 2: Claim, Evidence and Commentary<br>Unit 3: Argument and Storytelling | <p>Complete the AP Classroom Personal Progress Check (MCQ and FRQ) for Unit 2. Submit a final thesis and paragraph analyzing claim, evidence, and commentary in one of the identity-themed texts.</p> <p>Discuss the rhetorical situation and structure in a final class reflection</p> <p>Read and annotate "The Case for Working with Your Hands" by Matthew Crawford. Identify claims, evidence, and commentary</p> <p>Students create a chart or short video explaining Crawford' s line of reasoning and how it supports his argument</p> <p>Write a thesis statement and paragraph analyzing the effect of Crawford' s arguments, using claim, evidence, and commentary</p> |
| 五 | Unit 3: Argument and Storytelling                                           | <p>Read President Roosevelt' s Fireside Chat #4 and "Dear Mrs. Roosevelt" by Robert Cohen. Discuss economic issues from the 1930s and compare them to issues faced by teens today.</p> <p>Research a current economic issue faced by youth today, finding a minimum of four sources, including one interview and one visual source.</p> <p>Develop an argument on the role of government in eliminating negative economic factors for teens, synthesizing at least three sources . Choose an appropriate method of development to</p>                                                                                                                                             |

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|   |                                                              | <p>present the argument</p> <p>Incorporate evidence from visual and interview sources into the essay. Focus on using clear reasoning and commentary to support claims</p> <p>Peer review and revise the synthesis essay to ensure the development of a strong line of reasoning</p> <p>Submit the final synthesis essay on the role of government in addressing economic issues for high school students.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 六 | Unit 4: Analysis                                             | <p>Read and annotate “The Serpents of Paradise” by Edward Abbey and “Where I Lived and What I Lived For” by Henry David Thoreau.</p> <p>Choose one text and identify the thesis, claims, evidence, and commentary. Write an analytical thesis statement that previews the structure of the argument using the Toulmin model</p> <p>Draft an introduction and conclusion for an essay on the chosen text, focusing on method of development</p> <p>Read a variety of texts on nature’s impact (e.g., Emerson’s Nature). Conduct interviews with classmates on how nature impacts their experiences. Share findings in class.</p> <p>Write an original Toulmin-type thesis statement about nature’s impact.</p> <p>Develop an introduction, write at least four paragraphs addressing argument and counterargument, and conclude with a well-crafted conclusion</p>                                                                                                 |
| 七 | Unit 4: Analysis Unit 5: Research, Claims and Citing Sources | <p>Complete the essay on nature’s impact on the individual, incorporating argument and counterargument with claims, evidence, and commentary</p> <p>Peer review the essays, focusing on rhetorical situation and organization.</p> <p>Revise essays based on feedback.</p> <p>Complete Personal Progress Check MCQ and FRQ for Unit 4 as additional practice.</p> <p>Begin by reading Hamlet. Focus on how ethical dilemmas drive the plot and character decisions. Annotate for themes of morality, personal vs. public ethics, and the consequences of actions.</p> <p>In groups, brainstorm ethical issues in professional and personal experiences (education, business, technology, medicine). Discuss how these categories relate to the play.</p> <p>Read Steven Pinker’s “Is the World Getting Better or Worse? A Look at the Numbers.” Analyze the line of reasoning and the text’s organization, focusing on how it supports the overarching thesis</p> |
| 八 | Unit 5: Research, Claims and Citing Sources                  | <p>Mark Pinker’s essay for word choice, comparisons, and syntax. Explain how these</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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|    |                                                        | <p>elements contribute to tone and style</p> <p>Conduct online research on contemporary ethical issues, narrowing down to a specific problem that requires a solution. Begin outlining articles for claim, evidence, commentary, and thesis development</p> <p>Begin drafting an argument paper synthesizing a minimum of three sources (one must be a visual) on the chosen ethical issue. Develop a thesis statement, introduction, line of reasoning, and commentary. Use transitions and stylistic choices to guide readers and convey tone</p> <p>Discuss outlines with peers, brainstorm counterarguments, and conference with the teacher after completing the first draft</p>                                                                                                                                                                                           |
| 九  | Unit 5: Research, Claims and Citing Sources            | <p>Focus on editing for language and syntax, incorporating feedback from peers and the teacher. Rewrite and refine the paper, focusing on clarity of reasoning and style</p> <p>Write a reflection on the writing process, addressing the metacognitive process, including challenges and areas of growth</p> <p>Submit the final synthesis research paper with properly documented sources</p> <p>Complete Personal Progress Check MCQ and FRQ for Unit 5 to reinforce skills learned during the unit.</p> <p>Reflect on how ethical reasoning and stylistic choices informed the research paper and how these skills apply to future writing projects.</p>                                                                                                                                                                                                                    |
| 十  | Unit 6: Style                                          | <p>Students choose one text from the list (e.g., “School” by Kyoko Mori, “Shanghai Schools’ Approach” by David Barboza, “I Know Why the Caged Bird Cannot Read” by Francine Prose). Annotate for claim, evidence, and commentary</p> <p>Write a thesis statement requiring proof and previewing the argument’ s structure. Develop 2-4 paragraphs analyzing the selection’ s style and organization, using claim, evidence, and commentary. Focus on stylistic choices in the writing.</p> <p>Read “Me Talk Pretty One Day” by David Sedaris and “Superman and Me” by Sherman Alexie. Compare and contrast their styles, focusing on diction, organization, comparisons, and syntax</p> <p>Write a comparison/contrast essay addressing the stylistic choices in each text. Use strategically chosen words, comparisons, and syntax to convey tone and style in the writing</p> |
| 十一 | Unit 6: Style Unit 7: Diction, Mechanics and Structure | <p>Peer review the comparison/contrast essays, focusing on claims, evidence, and style. Revise based on feedback</p> <p>Complete Personal Progress Check MCQ and FRQ for Unit 6.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



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|    |                                          | <p>Submit the final comparison/contrast essay on Sedaris and Alexie. Reflect on how style and rhetorical choices advance the argument in both texts.</p> <p>Read “Use It or Lose It: Why Language Changes Over Time” by Nikhil Swaminathan and watch the TED Talk “How Language Shapes the Way We Think” by Lera Boroditsky. In groups, analyze the rhetorical situation for both the essay and the TED Talk</p> <p>Discuss how both authors qualify their claims with modifiers, counter arguments, and alternate perspectives. Identify the use of independent and dependent clauses to show relationships among ideas.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 十二 | Unit 7: Diction, Mechanics and Structure | <p>Write a claim responding to one of the texts. Develop a cogent introduction to an essay that qualifies the claim using modifiers, counter arguments, and alternate perspectives. Focus on using proper grammar and mechanics to clearly convey ideas</p> <p>Review and revise the essay introductions, focusing on improving sentence clarity, structure, and grammatical conventions. Ensure the claim is qualified effectively using rhetorical strategies</p> <p>Complete Personal Progress Check MCQ and FRQ for Unit 7.</p> <p>Submit the final essay introduction, incorporating clear grammar, mechanics, and a qualified claim about language.</p>                                                                                                                                                                                                                                                                                                                                                                                                  |
| 十三 | Unit 8: Visual Rhetoric                  | <p>View Lange’s “The Migrant Mother” . Deconstruct the paintings using knowledge of the rhetorical triangle, treating the visuals as arguments. Focus on themes like social inequality and economic disparity.</p> <p>Read excerpts from The Grapes of Wrath that describe the struggle of migrant workers during the Great Depression. Compare Steinbeck’s word choice, comparisons, and syntax to the visuals, focusing on how both mediums create tone and style</p> <p>Write an essay defining the rhetorical situation of a visual about the Great Depression. Imitate Steinbeck’s style, using careful word choice, syntax, and tone to reflect the themes of the visual</p> <p>Read key excerpts from The Grapes of Wrath focusing on themes like justice, poverty, and human dignity. Connect these themes to broader issues of social ethics.</p> <p>Write an essay comparing one of the major themes in The Grapes of Wrath with contemporary perspectives on the American Dream using “The New American Dream” (TED Talk by Courtney E. Martin)</p> |

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| 十四 | Unit 8: Visual Rhetoric               | <p>Examine short passages from <i>The Grapes of Wrath</i>, annotating for language and syntax that develop a particular tone or style. Highlight how Steinbeck uses syntax to convey desperation, hope, or societal criticism, and how sentence structure affects tone.</p> <p>Write original sentences and paragraphs that mimic Steinbeck's use of syntax and tone to convey similar themes. Focus on crafting clear, stylistically rich prose.</p> <p>Watch Tracy Chevalier's TED Talk "Finding the Story Inside the Painting" and discuss how visual rhetoric is used to create narratives. Connect this to how Steinbeck's <i>The Grapes of Wrath</i> uses vivid imagery to tell the story of migration, struggle, and survival.</p> <p>Write a synthesis essay using Lange's photographs and Chevalier's TED Talk alongside themes from <i>The Grapes of Wrath</i>. Analyze how both visuals and text use rhetoric to convey messages about society, justice, and human experience.</p> |
| 十五 | Unit 8: Visual Rhetoric Unit 9: Power | <p>Complete Personal Progress Check MCQ and FRQ for Unit 8 to reinforce skills learned throughout the unit.</p> <p>Submit the final painting analysis and <i>The Grapes of Wrath</i> comparative essay. Reflect on how visual and literary rhetoric both reveal societal issues and the role of individual voices in shaping public understanding.</p> <p>View the cartoon "The 12th Player in Every Football Game" and read "Can Science Solve Football's Concussion Crisis?" by Ryan Blasen and "What Happens to the Brain During a Concussion?" by Richard Smayda. Discuss how both authors qualify their claims through modifiers, counter arguments, and alternate perspectives.</p> <p>Students write a short response explaining how Blasen and Smayda use qualifiers and counterarguments to strengthen their claims.</p>                                                                                                                                                             |
| 十六 | Unit 9: Power                         | <p>Students choose a controversial sports topic (e.g., pay inequity, paying college athletes, youth sports injuries). Find two articles representing opposing views on the topic.</p> <p>Develop a thesis statement and outline an essay addressing the chosen controversy. Write one paragraph that qualifies the claim by including modifiers, counter arguments, and alternate perspectives.</p> <p>Engage in peer review of the paragraphs written in Week 2. Focus on how effectively the claims are qualified with counterarguments and alternate</p>                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|-----|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                         | <p>perspectives.</p> <p>Complete Personal Progress Check MCQ and FRQ for Unit 9.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 十七  | Unit 10: Self-discovery | <p>Discuss the central themes of Siddhartha, including self-discovery, enlightenment, and the search for meaning. Introduce the novel's connection to personal growth and transformation, which parallels the process of self-reflection in college essays.</p> <p>Begin reading Siddhartha (Part I: "The Brahmin's Son" to "Among the Samanas"). Focus on Siddhartha's early quest for knowledge and his desire to transcend societal expectations.</p> <p>Students write a short personal reflection on a time they questioned or challenged their path in life, connecting this to the themes of self-discovery in Siddhartha.</p> <p>Continue reading Siddhartha, discussing how Siddhartha leaves behind traditional teachings in search of his own path.</p> <p>Explore the idea of personal journeys, spiritual quests, and the role of mentors. How does Siddhartha's decision to follow his own path reflect the need for independence and self-reliance in real life?</p> <p>Students draft an essay focusing on a transformative experience or a key moment of pers</p> |
| 十八  | Unit 10: Self-discovery | <p>Continue Siddhartha, focusing on Siddhartha's experiences with materialism, love, and ultimate disillusionment.</p> <p>Explore how Siddhartha's experiences with wealth, love, and material success reflect the struggle to find balance and meaning. Connect these themes to the pressures students face in their own lives and the search for their personal definition of success.</p> <p>Students revise their essays based on feedback, refining their personal stories of transformation and growth.</p> <p>Finish Siddhartha, and discuss how Siddhartha finally achieves enlightenment by the river.</p> <p>Discuss the conclusion of Siddhartha's journey and his realization of unity in all things. How does Siddhartha's ultimate enlightenment reflect the importance of personal reflection, acceptance, and understanding?</p> <p>Submit the final version of a college essay.</p>                                                                                                                                                                               |
| 十九  |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 二十  |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 二十一 |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|       |                                                          |  |  |
|-------|----------------------------------------------------------|--|--|
|       | 二十<br>二                                                  |  |  |
| 學習評量： | Exams 40%, Assignments/Homework 30%, Essays/Projects 30% |  |  |
| 備註：   | 全英語授課<br>此為一學年課程，1-9為上學期課程、10-18為下學期課程                   |  |  |

【備查版】

【備查版】

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|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：AP微積分AB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                     |
|             | 英文名稱：AP Calculus AB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                     |
| 授課年段：       | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 學分總數：8                                                              |
| 課程屬性：       | 數學領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                     |
| 議題融入：       | 科技、資訊                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                     |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                     |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                     |
|             | B溝通互動：B2.科技資訊與媒體素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                     |
|             | C社會參與：C2.人際關係與團隊合作                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                     |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                     |
| 學習目標：       | <p>Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal.</p> <p>Explain the meaning of the derivative in terms of a rate of change and local linear approximation as well as use derivatives to solve problems.</p> <p>Explain the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change as well as use integrals to solve problems.</p> <p>Describe the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.</p> <p>Communicate mathematics and explain solutions to problems verbally and in writing.</p> <p>Model a written description of a physical situation with a function, a differential equation, or an integral.</p> <p>Use technology to solve problems, experiment, interpret results, and support conclusions</p> |                                                                     |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 單元/主題                                                               |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1 Limits and Continuity                                        |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1 Limits and Continuity                                        |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1 Limits and Continuity                                        |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1 Limits and Continuity                                        |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 2 Differentiation - Definition and Fundamental Properties      |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 2 Differentiation - Definition and Fundamental Properties      |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 2 Differentiation - Definition and Fundamental Properties      |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 2 Differentiation - Definition and Fundamental Properties      |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Review Unit1-Unit 2                                                 |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 3 Differentiation - Composite, Implicit, and Inverse Functions |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Differentiation - Composite, Implicit, and Inverse Functions |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                     |

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|                                  | 十二  | Unit 4 Contextual Applications of Differentiation | Interpreting a Derivative; Differentials; Linear Approximations; and Newton' s Method |
|                                  | 十三  | Unit 4 Contextual Applications of Differentiation | Related Rates; Indeterminate Forms and L' Hopital' s Rule                             |
|                                  | 十四  | Unit 5 Analytical Applications of Differentiation | Maximum and Minimum Values; Critical Numbers; Mean Value Theorem.                     |
|                                  | 十五  | Unit 5 Analytical Applications of Differentiation | Local Extrema and Concavity; Using Calculus to Graph Functions                        |
|                                  | 十六  | Unit 5 Analytical Applications of Differentiation | Optimization                                                                          |
|                                  | 十七  | Unit 5 Analytical Applications of Differentiation | Antiderivatives and Differential Equations                                            |
|                                  | 十八  | Review Unit 3-Unit 5                              | Questions and Discussions                                                             |
|                                  | 十九  |                                                   |                                                                                       |
|                                  | 二十  |                                                   |                                                                                       |
|                                  | 二十一 |                                                   |                                                                                       |
|                                  | 二十二 |                                                   |                                                                                       |
| 學習評量： 40% 課堂參與、30% 回家作業、30% 專題報告 |     |                                                   |                                                                                       |
| 備註：                              |     |                                                   |                                                                                       |



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|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：Honors Precalculus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                 |
|             | 英文名稱：Honors Precalculus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                 |
| 授課年段：       | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 學分總數：8                                                                                                          |
| 課程屬性：       | 數學領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |
| 議題融入：       | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |
| 師資來源：       | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 |
|             | B溝通互動：B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 |
|             | C社會參與：C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                 |
| 學習目標：       | 1. Learn how to evaluate and graph the trigonometric functions, their inverse, and their reciprocals.<br>2. Use trigonometric ratios to solve problems in a variety of contexts, such as mechanics, biology, and navigation.<br>3. Learn strategies for simplifying expressions and solving equations by using trigonometric identities.<br>4. Learn how to apply trigonometry to oblique triangles, vectors, and complex numbers.<br>5. Introduce parametric and polar forms for writing and graphing equations.<br>6. Using polar coordinates to represent and solve problems.<br>7. Learn the polar form of complex number and De Moivre's THM<br>8. Vectors in Two Dimensions and Dot Product |                                                                                                                 |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 單元/主題                                                                                                           |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.1 Angle Measure                                                                                               |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.2 Angle Measure<br>Trigonometry of Right Triangles                                                            |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.3 Trigonometric Functions of Angles                                                                           |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.1-5.2 The Unit Circle<br>Trigonometric Functions of Real Numbers                                              |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.3-5.4 Trigonometric Graphs<br>More Trigonometric Graphs                                                       |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.5、6.4 Inverse Trigonometric Functions and Their Graphs<br>Inverse Trigonometric Functions and Right Triangles |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.5 The Law of Sines                                                                                            |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.6、6.6 The Law of Cosines<br>Modeling Harmonic Motion                                                          |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.1 Trigonometric Identities                                                                                    |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.2 Addition and Subtraction Formulas                                                                           |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7.3 Double-Angle, Half-Angle, and Product-Sum Formulas                                                          |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7.4 Basic Trigonometric Equations                                                                               |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7.5 More Trigonometric Equations                                                                                |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8.1 Polar Coordinates                                                                                           |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8.2-8.3 Graphs of Polar Equations<br>Polar Form of Complex Numbers; De Moivre's THM                             |

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|-------|-----|----------------------------------------------------------|----------------------------------------------|
|       | 十六  | 9.1-9.2                                                  | Vectors in Two Dimensions<br>The Dot Product |
|       | 十七  | Project                                                  | Presentation                                 |
|       | 十八  | Wrap Up                                                  | Questions and discussion                     |
|       | 十九  |                                                          |                                              |
|       | 二十  |                                                          |                                              |
|       | 二十一 |                                                          |                                              |
|       | 二十二 |                                                          |                                              |
| 學習評量： |     | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                              |
| 備註：   |     | 全英語授課                                                    |                                              |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 課程名稱：       | 中文名稱：Physics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                          |
|             | 英文名稱：Physics I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                          |
| 授課年段：       | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 學分總數：4                                                   |
| 課程屬性：       | 自然科學領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                          |
| 議題融入：       | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                          |
| 師資來源：       | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                          |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          |
|             | B溝通互動：B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                          |
|             | C社會參與：C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                          |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                          |
| 學習目標：       | <ul style="list-style-type: none"> <li>• Properly use terminology associated with the scientific method.</li> <li>• Develop and use graphical models to explain physics concepts</li> <li>• Use mathematics and computational thinking to quantify variables and identify units</li> <li>• Make predictions, plan and carry out investigations involving physics concepts, such as Newton's three laws, momentum and energy conservation, and more.</li> <li>• Analyze and interpret data between voltage, current, and resistance of a circuit.</li> <li>• Evaluate a claim based on evidence and reasoning.</li> <li>• Apply their understanding of physics concepts to evaluate a complex real-world problem.</li> </ul> |                                                          |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 單元/主題                                                    |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 1: Motion in 1D                                     |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 1: Motion in 1D                                     |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 1: Motion in 1D                                     |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 1: Motion in 1D                                     |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 1: Motion in 1D                                     |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 2: Dynamics                                         |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 2: Dynamics                                         |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 2: Dynamics                                         |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 2: Dynamics                                         |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UNIT 3: Energy & Motion                                  |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 3: Energy & Motion                                  |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 3: Energy & Motion                                  |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 3: Energy & Motion                                  |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 3: Energy & Motion                                  |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 3: Energy & Motion                                  |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 3: Energy & Motion                                  |
|             | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 3: Energy & Motion                                  |
|             | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UNIT 3: Energy & Motion                                  |
|             | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                          |
|             | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                          |
|             | 二十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 內容綱要                                                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Introduction to Physics                                  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nature of Physics                                        |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Kinematics in 1-D; Describing Motion                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Describing Motion Through Equations                      |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Kinematics in 1-D; Freely Falling Bodies                 |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Vectors                                                  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Kinematics in 2-D; Relative Velocity & Projectile Motion |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Newton's Laws of Motion                                  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Newton's Laws of Motion; Applications / Lab              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Impulse-Momentum Theorem                                 |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Momentum Conservation                                    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Work, Energy & Power                                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Energy Conservation                                      |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Transferring Thermal Energy                              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Circular Motion                                          |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Universal Gravitation & Kepler's Laws                    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Static Electricity; Charging                             |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Electric Forces & Electric Fields / Lab                  |

|       |                                                          |  |  |
|-------|----------------------------------------------------------|--|--|
|       | 二十<br>二                                                  |  |  |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |  |  |
| 備註：   | 全英語授課                                                    |  |  |

【備查版】

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|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                       |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：Precalculus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |
|         | 英文名稱：Precalculus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |
| 授課年段：   | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 學分總數：8                                                                                                |
| 課程屬性：   | 數學領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |
|         | B溝通互動：B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |
|         | C社會參與：C2.人際關係與團隊合作                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |
| 學生圖像：   | 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                       |
| 學習目標：   | 1. Learn how to find trigonometric functions ratios of an acute angle by drawing a right triangle, and of any angle by drawing a unit circle and a reference angle.<br>2. Learn how to evaluate and graph the trigonometric functions, their inverses, and their reciprocals.<br>3. Learn strategies for simplifying expressions and solving equations by using trigonometric identities<br>4. Learn how to apply trigonometry to oblique triangles, vectors and complex numbers.<br>5. Introduce parametric and polar forms for writing and graphing equations.<br>6. Using polar coordinates to represent and solve problems.<br>7. Introduce the three-dimensional coordinate system and methods for describing three-dimensional vectors. |                                                                                                       |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 單元/主題                                                                                                 |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.1                                                                                                   |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.1-6.2                                                                                               |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.3                                                                                                   |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.2                                                                                                   |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.3-5.4                                                                                               |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.5+6.4                                                                                               |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.5                                                                                                   |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.6                                                                                                   |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7.1                                                                                                   |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7.2                                                                                                   |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7.3                                                                                                   |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7.4                                                                                                   |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7.5                                                                                                   |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8.1                                                                                                   |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8.2                                                                                                   |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8.3                                                                                                   |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Project                                                                                               |
|         | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Wrap-up                                                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 內容綱要                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Angle Measure                                                                                         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Angle Measure, Trigonometry of Right Triangles                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Trigonometric Functions of Angles                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Trigonometric Functions of Real Numbers                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Trigonometric Graphs, More Trigonometric Graphs                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Inverse Trigonometric Functions and Their Graphs, Inverse Trigonometric Functions and Right Triangles |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The Law of Sines                                                                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The Law of Cosines                                                                                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Trigonometric Identities                                                                              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Addition and Subtraction Formulas                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Double-Angle, Half-Angle, and Product-Sum Formulas                                                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Basic Trigonometric Equations                                                                         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | More Trigonometric Equations                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Polar Coordinates                                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Graphs of Polar Equations                                                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Polar Form of Complex Numbers; De Moivre's Theorem                                                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Presentation                                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Questions and discussion                                                                              |

|       |                                                          |  |  |
|-------|----------------------------------------------------------|--|--|
|       | 十九                                                       |  |  |
|       | 二十                                                       |  |  |
|       | 二十一                                                      |  |  |
|       | 二十二                                                      |  |  |
|       |                                                          |  |  |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |  |  |
| 備註：   | 全英語授課                                                    |  |  |

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|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：美國歷史                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                      |
|         | 英文名稱：US History I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                      |
| 授課年段：   | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數：4                                                                                                                                                                                                               |
| 課程屬性：   | 社會領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                      |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                      |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                      |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                      |
|         | B溝通互動：B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                      |
|         | C社會參與：C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                      |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                      |
| 學習目標：   | <ul style="list-style-type: none"><li>• Develop critical thinking skills through the analysis of primary and secondary sources in American history.</li><li>• Evaluate the perspectives and motivations of historical figures and groups.</li><li>• Apply inquiry-based methods to explore key questions in American history.</li><li>• Investigate the concept of American identity, considering cultural, social, and political factors.</li><li>• Analyze the impact of historical events on the development of American identity.</li><li>• Explore diversity and unity in American history, considering multiple perspectives.</li><li>• Examine the foundations of American democracy through the study of key documents like the Constitution and the Bill of Rights.</li><li>• Analyze the evolution of democratic ideals and their impact on American society.</li><li>• Investigate the roles of citizens in shaping the course of American history.</li><li>• Explore the social and cultural aspects of American history, including the impact of immigration, diversity, and cultural heritage.</li><li>• Investigate the economic transformation</li></ul> |                                                                                                                                                                                                                      |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 單元/主題                                                                                                                                                                                                                |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: The English Settle Virginia                                                                                                                                                                                  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Colonial Settlement Continues                                                                                                                                                                                |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Relations with England                                                                                                                                                                                       |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Relations with England                                                                                                                                                                                       |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Relations with England                                                                                                                                                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 內容綱要                                                                                                                                                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Exploration of setting up a colony in the New World<br>Colony Survival activity<br>Colonial vocabulary jigsaw<br>Inquiry-based lesson: Why was living in Jamestown so difficult?                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Examination of English Puritan, Dutch, and English Quaker settlements<br>Inquiry-based lesson: Origins of US Representative Government<br>Research Project: Create a presentation on one of the 13 American Colonies |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Analysis of developing relationship with England<br>Research Project cont' d: Present Colony to the class                                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Examination of agriculture in South vs commerce in North<br>Survey of diversity of living conditions in colonies                                                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The Middle Passage and Triangle trade                                                                                                                                                                                |

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| 六  | Unit 1: Colonial Economies and Life in the Colonies                     | Mock Salem Witch Trial                                                                                                                                                                                                                                                                                                                  |
| 七  | Unit 2: The Stirrings of Rebellion                                      | Explore conflict over issues of taxation, representation and liberty<br>Inquiry-based lesson: Boston Massacre-eye-witness accounts compared to Revere's propaganda                                                                                                                                                                      |
| 八  | Unit 2: Revolutionary War - Ideas Start a Revolution                    | Analysis of tensions increasing between the colonists and King George<br>Inquiry-based lesson: Thomas Paine's Common Sense pamphlet<br>Research Project: Who is that Founding Father?                                                                                                                                                   |
| 九  | Unit 2: Revolutionary War - Struggling toward Saratoga                  | Explore the setbacks America faced at the start of the war.<br>Research Project cont'd: Present to class<br>Document-based Inquiry: Declaration of Independence paraphrase                                                                                                                                                              |
| 十  | Unit 2: Winning the War                                                 | Examine the final moves to win the Revolutionary War by the Continental Army.<br>Document-based lesson: Consult the secondary sources of the Battle of Yorktown and write a historical fiction diary entry.                                                                                                                             |
| 十一 | Unit 2: The Articles of Confederation                                   | Constitutional vocabulary jigsaw<br>Analyze the Articles of Confederation and its shortcomings<br>Inquiry-based lesson: Road to Philadelphia- Why did reform-minded Americans want to make changes to the Articles of Confederation?                                                                                                    |
| 十二 | Unit 2: Drafting and Ratifying the Constitution                         | Examine why the US Constitution is a remarkable document<br>Inquiry-based lesson: Benjamin Franklin's letter to the President                                                                                                                                                                                                           |
| 十三 | Unit 3: How Do Ordinary Americans Define Democracy in the 21st Century? | Document based lesson - Comparison of tweets about democracy in the 21st Century with thinking during 1775<br>Jefferson Alters the Nation's Course<br>Inquiry-based lesson: What did Thomas Jefferson Believe were the main responsibilities of government?<br>Document-based lesson: First Inaugural Address of Thomas Jefferson, 1801 |
| 十四 | Unit 3: How Did Andrew Jackson Represent the Common Man?                | The Age of Jackson<br>Document-based lesson: Political Cartoons about Andrew Jackson, 1830s<br>Activity: Create a political cartoon about Andrew Jackson                                                                                                                                                                                |
| 十五 | Unit 3: How Did Frederick Douglass Criticize American Democracy?        | Slavery and Abolition<br>Document-based lesson: What to the Slave is the Fourth of July? 1852<br>Activity: Write a dialogue between Thomas Jefferson and Frederick Douglass                                                                                                                                                             |
| 十六 | Unit 3: How Did Frederick Douglass Criticize American Democracy?        | Women in Public Life<br>Document-based lesson: On Women's Right to Vote, 1872<br>Activity: Debate between Thomas Paine                                                                                                                                                                                                                  |

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|       |                                                          |                                                                        | and Susan B. Anthony on “distinction of nature”                                                                                                                                                                          |
|       | 十七                                                       | Unit 3: What Did JFK Believe American Should Do for the World?         | Kennedy and the New Frontier<br>Document-based lesson: Inaugural address of John F. Kennedy, 1961<br>Activity: Technology list that can “abolish human poverty” and “abolish all forms of human life” through three ages |
|       | 十八                                                       | Unit 3: Why Did Barack Obama Think the US Was Not Yet a Perfect Union? | Obama’s Presidency<br>Document-based lesson: A More Perfect Union, 2008<br>Activity: Obama and Reagan debate what makes American great                                                                                   |
|       | 十九                                                       |                                                                        |                                                                                                                                                                                                                          |
|       | 二十                                                       |                                                                        |                                                                                                                                                                                                                          |
|       | 二十一                                                      |                                                                        |                                                                                                                                                                                                                          |
|       | 二十二                                                      |                                                                        |                                                                                                                                                                                                                          |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                                                        |                                                                                                                                                                                                                          |
| 備註：   | 全英語授課                                                    |                                                                        |                                                                                                                                                                                                                          |

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| 課程名稱：   | 中文名稱： 英語文11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                           |
|         | 英文名稱： Honors English Language Arts 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                           |
| 授課年段：   | 二上、二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 學分總數： 4                                                                                                                                                                                   |
| 課程屬性：   | 語文領域                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                           |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                           |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                           |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                           |
|         | B溝通互動： B1.符號運用與溝通表達                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                           |
|         | C社會參與： C2.人際關係與團隊合作                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                           |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                           |
| 學習目標：   | <ul style="list-style-type: none"> <li>Engage in the close reading and analysis of diverse texts.</li> <li>Evaluate the use of rhetorical devices, argumentation, and tone.</li> <li>Draw evidence from texts to support analysis and arguments.</li> <li>Examine how historical events and cultural contexts influence literature.</li> <li>Develop effective writing skills, including the ability to write clear and coherent essays.</li> <li>Apply research skills and cite textual evidence to support claims.</li> <li>Analyze characters, their motivations, and character development.</li> <li>Make connections between different texts and draw inferences.</li> <li>Facilitate the synthesis of various elements to convey a deeper message.</li> <li>Develop students' abilities to apply rhetorical techniques in their own writing.</li> </ul> |                                                                                                                                                                                           |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 單元/主題                                                                                                                                                                                     |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 1: Things Fall Apart: Proverbs and Folktales                                                                                                                                         |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 1: Things Fall Apart: Family Ties                                                                                                                                                    |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 1: Things Fall Apart: Ibo Norms                                                                                                                                                      |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 1: Things Fall Apart: Tragic Hero                                                                                                                                                    |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 1: Things Fall Apart: Cultural Misunderstandings                                                                                                                                     |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 1: Embedded Assessment: Literary Analysis                                                                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 內容綱要                                                                                                                                                                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Preview the novel<br>Explore African folktales<br>Reading Journal & Proverbs<br>Informational Extended Paragraph                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Discuss the concept of a foil and apply to the novel<br>Reading Journal & Literary Analysis Paragraph                                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Identify and organize Ibo cultural practices from the novel<br>Research and present on specific areas of Ibo culture before colonization<br>Reading Journal & Literary Analysis Paragraph |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Discuss and identify tragic flaws<br>Reading Journal & Analysis Paragraph - Tragic Hero<br>Socratic Seminar                                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Compare and contrast cultural values found in the novel<br>Reading Journal & Comparison Extended Paragraph<br>Timed Writing- Informational Paragraph                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Letter to the District Commissioner<br>Essay - Informational: How a work of Literature can Reflect a Cultural Perspective                                                                 |

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| 七  | Unit 1: Digging Deeper into Character              | Read an interview with author Chinua Achebe<br>Discuss insights into Things Fall Apart<br>Watch and discuss “The Danger of a Single Story” by Chimamanda Adichie                                                                                        |
| 八  | Unit 1: Taking Journeys                            | Read and discuss short stories “Half a Day” and “Change”<br>Discuss how cultural and historical setting affect the meaning of a text<br>Analyze how literary techniques can develop a complex character                                                 |
| 九  | Unit 1: Embedded Assessment: Writing a Short Story | Plan and write an original short story incorporating lessons on the influence of time and place on a narrative                                                                                                                                          |
| 十  | Unit 2: Making Claims                              | Read a cartoon and the argumentative text “Reality is Broken”<br>Draw inferences to interpret a multimedia text<br>Identify claims and analyze how evidence supports claims                                                                             |
| 十一 | Unit 2: Technology and Communication               | Reread “Reality is Broken” read “The Flight from Conversation”<br>Discuss counterclaims, concessions and rebuttals<br>Write an analysis paragraph about how an author strengthens an argument                                                           |
| 十二 | Unit 2: Analyzing an Argument                      | Reread “The Flight from Conversation” and read “We Need to Talk”<br>Discuss the author’s use of rhetorical devices<br>Analyze details and fallacies in an argument<br>Write a 4-paragraph essay analyzing how an author builds an argument              |
| 十三 | Unit 2: Taking a Stand on Justice                  | Read and discuss “On Civil Disobedience” and “On Surrender at Bear Paw Mountain, 1877”<br>Analyze the use of rhetorical appeals in an argument                                                                                                          |
| 十四 | Unit 2: Taking a Stand on Truth and Responsibility | Read and discuss “UN Declaration on the Rights of the Child”, Statistics from the World Health Organization, and “The Summer Hunger Crisis”<br>Synthesize information from print and media sources<br>Integrate ideas to build knowledge about advocacy |
| 十五 | Unit 2: Embedded Assessment: Creating an Argument  | Read Kofi Annan’s “Nobel Lecture”, and “Hope, Despair and Memory” by Elie Wiesel<br>Analyze language in these two speeches<br>Emulate this language in an original persuasive argument                                                                  |
| 十六 | Unit 2: Taking Sides                               | Read “Video Games are Good for the Brain” and “Brain training apps don’t seem to do much of anything”<br>Use evidence and examples from multiple texts to support a position                                                                            |

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|       | 十七                                                       | Unit 2: Preparing for a debate    | Select a debate topic<br>Research credible sources, preparing a claim and evidence in support of that claim                           |
|       | 十八                                                       | Unit 2: Participating in a Debate | Work collaboratively as a part of a team<br>Reflect on the importance of the quality and strength of evidence when supporting a claim |
|       | 十九                                                       |                                   |                                                                                                                                       |
|       | 二十                                                       |                                   |                                                                                                                                       |
|       | 二十一                                                      |                                   |                                                                                                                                       |
|       | 二十二                                                      |                                   |                                                                                                                                       |
| 學習評量： | Exams 45%, Assignments/Homework 35%, Essays/Projects 20% |                                   |                                                                                                                                       |
| 備註：   | 全英語授課                                                    |                                   |                                                                                                                                       |

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| 課程名稱：   | 中文名稱： 國語文11                                                                                                                                                                                                                                                                                                                                              |                                                           |                                                                                                 |
|         | 英文名稱： AP Chinese Language and Culture                                                                                                                                                                                                                                                                                                                    |                                                           |                                                                                                 |
| 授課年段：   | 二上、二下                                                                                                                                                                                                                                                                                                                                                    |                                                           | 學分總數： 8                                                                                         |
| 課程屬性：   | 語文領域                                                                                                                                                                                                                                                                                                                                                     |                                                           |                                                                                                 |
| 議題融入：   | 性別平等、人權、生命、多元文化                                                                                                                                                                                                                                                                                                                                          |                                                           |                                                                                                 |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                                                                                     |                                                           |                                                                                                 |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                                                                                                                                                                                                                                                         |                                                           |                                                                                                 |
|         | B溝通互動： B3.藝術涵養與美感素養                                                                                                                                                                                                                                                                                                                                      |                                                           |                                                                                                 |
|         | C社會參與： C2.人際關係與團隊合作、C3.多元文化與國際理解                                                                                                                                                                                                                                                                                                                         |                                                           |                                                                                                 |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                           |                                                           |                                                                                                 |
| 學習目標：   | Through a spiraled curriculum, students will develop their Chinese language abilities in eight specific skill categories. Development of those skills will take place in the context of six thematic areas: Family and Community; Personal and Public Identity; Beauty and Aesthetics; Science and Technology; Contemporary Life; and Global Challenges. |                                                           |                                                                                                 |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                     | 單元/主題                                                     | 內容綱要                                                                                            |
|         | 一                                                                                                                                                                                                                                                                                                                                                        | Introduction                                              | Introduction to AP Chinese Language and Culture<br>Essential Questions                          |
|         | 二                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Families in Different Societies                   | What constitutes a family in Chinese speaking societies?                                        |
|         | 三                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Families in Different Societies                   | What are some important aspects of family values and family life in Chinese-speaking societies? |
|         | 四                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Families in Different Societies                   | What challenges do families face in today’ s world?                                             |
|         | 五                                                                                                                                                                                                                                                                                                                                                        | Unit 2: The Influence of Language and Culture on Identity | How does one’ s identity evolve over time?                                                      |
|         | 六                                                                                                                                                                                                                                                                                                                                                        | Unit 2: The Influence of Language and Culture on Identity | How does one’ s identity evolve over time?                                                      |
|         | 七                                                                                                                                                                                                                                                                                                                                                        | Unit 2: The Influence of Language and Culture on Identity | How does technology influence the development of personal and public identity?                  |
|         | 八                                                                                                                                                                                                                                                                                                                                                        | Unit 2: The Influence of Language and Culture on Identity | How does the art of a community reflect its public identify?                                    |
|         | 九                                                                                                                                                                                                                                                                                                                                                        | Review                                                    | Unit 1-2                                                                                        |
|         | 十                                                                                                                                                                                                                                                                                                                                                        | Unit 3: Influences of Beauty and Art                      | How do ideals of beauty and aesthetics influence daily life?                                    |
|         | 十一                                                                                                                                                                                                                                                                                                                                                       | Unit 3: Influences of Beauty and Art                      | How does art both challenge and reflect cultural perspectives?                                  |
|         | 十二                                                                                                                                                                                                                                                                                                                                                       | Unit 3: Influences of Beauty and Art                      | How do communities value beauty and art?                                                        |
|         | 十三                                                                                                                                                                                                                                                                                                                                                       | Unit 3: Influences of Beauty and Art                      | How is art used to record history?                                                              |
|         | 十四                                                                                                                                                                                                                                                                                                                                                       | Skill Training: Comprehend Text                           | Describe the literal meaning of the written, audio, audiovisual and/or visual                   |



|       |                              |                                                                                                                          |
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|       |                              | text.                                                                                                                    |
|       | 十五                           | Skill Training: Comprehend Text<br>Describe the literal meaning of the written, audio, audiovisual and/or visual text.   |
|       | 十六                           | Skill Training: Make Connections<br>Make connections among cultural and interdisciplinary information provided in texts. |
|       | 十七                           | Skill Training: Make Connections<br>Make connections among cultural and interdisciplinary information provided in texts. |
|       | 十八                           | Review<br>Review                                                                                                         |
|       | 十九                           |                                                                                                                          |
|       | 二十                           |                                                                                                                          |
|       | 二十一                          |                                                                                                                          |
|       | 二十二                          |                                                                                                                          |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                                                                                          |
| 備註：   |                              |                                                                                                                          |

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|-------------|--------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 探索課程_無痕山林                                                                                                                |             |                                                                       |
|             | 英文名稱： Adventure Education-Leave No Trace (LNT)                                                                                 |             |                                                                       |
| 授課年段：       | 二上                                                                                                                             | 學分總數： 1     |                                                                       |
| 課程屬性：       | 實作(實驗)及探索體驗                                                                                                                    |             |                                                                       |
| 議題融入：       | 環境、品德、安全、戶外教育                                                                                                                  |             |                                                                       |
| 師資來源：       | 校內單科                                                                                                                           |             |                                                                       |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進、A2.系統思考與問題解決                                                                                               |             |                                                                       |
|             | B溝通互動： B1.符號運用與溝通表達                                                                                                            |             |                                                                       |
|             | C社會參與： C1.道德實踐與公民意識、C2.人際關係與團隊合作                                                                                               |             |                                                                       |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 |             |                                                                       |
| 學習目標：       | 1.透過認識LNT的原則，建立起與大自然和諧相處的方法<br>2.擬定LNT旅行計畫，並且LNT小旅行中實施該方案。<br>3.在LNT小旅行中進行LNT-Trainer測驗。                                       |             |                                                                       |
| 教學大綱：       | 週次/<br>序                                                                                                                       | 單元/主題       | 內容綱要                                                                  |
|             | 一                                                                                                                              | 無痕山林的發展     | Leave No Trace的縮寫，意為無痕山林，被稱之為環境最小衝擊法則。這個原則來源於美國，並得到戶外人的普遍認同，進而推展到全世界。 |
|             | 二                                                                                                                              | 無痕山林的發展     | Leave No Trace的縮寫，意為無痕山林，被稱之為環境最小衝擊法則。這個原則來源於美國，並得到戶外人的普遍認同，進而推展到全世界。 |
|             | 三                                                                                                                              | LNT與山林的保護   | 教導大眾對待環境的正確觀念與技巧，進而協助將遊憩活動對自然生態的衝擊降到最低                                |
|             | 四                                                                                                                              | LNT與山林的保護   | 教導大眾對待環境的正確觀念與技巧，進而協助將遊憩活動對自然生態的衝擊降到最低                                |
|             | 五                                                                                                                              | LNT-第1～3項原則 | 認識原則一：事先計劃和準備、原則二：在堅實的地面上行進和露營，原則三：妥善處理垃圾，進行小組討論、分享。                  |
|             | 六                                                                                                                              | LNT-第1～3項原則 | 認識原則一：事先計劃和準備、原則二：在堅實的地面上行進和露營，原則三：妥善處理垃圾，進行小組討論、分享。                  |
|             | 七                                                                                                                              | LNT-第4～7項原則 | 認識原則四：保持自然原貌，原則五：注意野外用火、原則六：尊重野生動植物、原則七：考慮其他戶外活動者，進行小組討論、分享。          |
|             | 八                                                                                                                              | LNT-第4～7項原則 | 認識原則四：保持自然原貌，原則五：注意野外用火、原則六：尊重野生動植物、原則七：考慮其他戶外活動者，進行小組討論、分享。          |
|             | 九                                                                                                                              | LNT實施計畫     | 分組討論，擬定小隊實施LNT旅行計畫，包含路線評估、伙食計畫、人員分配、風險評估…等。                           |
|             | 十                                                                                                                              | LNT實施計畫     | 分組討論，擬定小隊實施LNT旅行計畫，包含路線評估、伙食計畫、人員分配、風險評估…等。                           |
|             | 十一                                                                                                                             | LNT旅行與實踐    | 分組討論，擬定小隊實施LNT旅行計畫，包含路線評估、伙食計畫、人員分配、風險評估…等。                           |
|             | 十二                                                                                                                             | LNT旅行與實踐    | 分組討論，擬定小隊實施LNT旅行計畫，包含路線評估、伙食計畫、人員分配、風險評估…等。                           |
|             | 十三                                                                                                                             | LNT旅行與實踐    | 分組討論，擬定小隊實施LNT旅行計畫，包含路線評估、伙食計畫、人員分配、風險評估…等。                           |
|             | 十四                                                                                                                             | LNT旅行與實踐    | 依據小隊計畫，實踐理論進行LNT旅行，教師觀察是否符合LNT七項原則。                                   |

|       |                                  |             |                                        |
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|       | 十五                               | LNT旅行與實踐    | 依據小隊計畫，實踐理論進行LNT旅行，教師觀察是否符合LNT七項原則。    |
|       | 十六                               | 心向群山-屬於我的冒險 | 介紹未來登高山的路線、人文歷史與自然環境，讓學生對未來的登山活動有基礎概念。 |
|       | 十七                               | 心向群山-屬於我的冒險 | 介紹未來登高山的路線、人文歷史與自然環境，讓學生對未來的登山活動有基礎概念。 |
|       | 十八                               | 心向群山-屬於我的冒險 | 介紹未來登高山的路線、人文歷史與自然環境，讓學生對未來的登山活動有基礎概念。 |
|       | 十九                               |             |                                        |
|       | 二十                               |             |                                        |
|       | 二十一                              |             |                                        |
|       | 二十二                              |             |                                        |
| 學習評量： | 參與及學習態度 40%，學習成果報告 40%，學習回饋表 20% |             |                                        |
| 備註：   |                                  |             |                                        |

【備查版】

【備查版】

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| 課程名稱：   | 中文名稱：探索課程_大山之歌                                                                                                                 |                |
|         | 英文名稱：Adventure Education- A song from the mountain                                                                             |                |
| 授課年段：   | 二下                                                                                                                             | 學分總數：1         |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                    |                |
| 議題融入：   | 環境、品德、安全、防災、戶外教育、原住民族教育                                                                                                        |                |
| 師資來源：   | 校內單科                                                                                                                           |                |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                   |                |
|         | B溝通互動：B1.符號運用與溝通表達                                                                                                             |                |
|         | C社會參與：C1.道德實踐與公民意識、C2.人際關係與團隊合作、C3.多元文化與國際理解                                                                                   |                |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 |                |
| 學習目標：   | 1. 深入理解台灣高山環境的歷史、人文、地理環境與地質。<br>2. 理解原住民對山的情感與生態智慧。<br>3. 學會判斷登山路線，使用地圖、指北針與GPS的使用。<br>4. 瞭解坊間登山器材的種類、材質和使用方法，挑選適合自己的登山器材。     |                |
| 教學大綱：   | 週次/序                                                                                                                           | 單元/主題          |
|         | 一                                                                                                                              | 台灣高山人文與歷史      |
|         | 二                                                                                                                              | 台灣高山人文與歷史      |
|         | 三                                                                                                                              | 山與原住民          |
|         | 四                                                                                                                              | 山與原住民          |
|         | 五                                                                                                                              | 登山地圖與路線判斷      |
|         | 六                                                                                                                              | 登山地圖與路線判斷      |
|         | 七                                                                                                                              | 指北針與GPS運用      |
|         | 八                                                                                                                              | 指北針與GPS運用      |
|         | 九                                                                                                                              | 登山裝備介紹-背負系統    |
|         | 十                                                                                                                              | 登山裝備介紹-保暖和防雨衣物 |
|         | 十一                                                                                                                             | 登山裝備介紹-飲食及照明   |

|       |     |                                            |                                                                        |
|-------|-----|--------------------------------------------|------------------------------------------------------------------------|
|       | 十二  | 登山裝備介紹-其他                                  | 戶外裝備的材質介紹，瞭解差異性，選擇適合自己的裝備。理解登山裝備的重要性和必須性，透過裝備的輕量化，去蕪存菁，能減少額外的體力負擔。     |
|       | 十三  | 登山背包裝填                                     | 學習如何把所有的裝備放在登山背包中，理解背包裝填的原則，相關的配重和放置的方式，對長距離負重的重要性。                    |
|       | 十四  | 登山背包裝填                                     | 學習如何把所有的裝備放在登山背包中，理解背包裝填的原則，相關的配重和放置的方式，對長距離負重的重要性。                    |
|       | 十五  | 登山背包裝填                                     | 學習如何把所有的裝備放在登山背包中，理解背包裝填的原則，相關的配重和放置的方式，對長距離負重的重要性。                    |
|       | 十六  | 背包使用與調整                                    | 背包背長與負重系統的調整，體會前後的差異，學習如何正確的上下背包，讓身體腰部適當的負擔背包重量，減輕肩膀的承受重量，避免受傷，減輕行走負擔。 |
|       | 十七  | 背包使用與調整                                    | 背包背長與負重系統的調整，體會前後的差異，學習如何正確的上下背包，讓身體腰部適當的負擔背包重量，減輕肩膀的承受重量，避免受傷，減輕行走負擔。 |
|       | 十八  | 背包使用與調整                                    | 背包背長與負重系統的調整，體會前後的差異，學習如何正確的上下背包，讓身體腰部適當的負擔背包重量，減輕肩膀的承受重量，避免受傷，減輕行走負擔。 |
|       | 十九  |                                            |                                                                        |
|       | 二十  |                                            |                                                                        |
|       | 二十一 |                                            |                                                                        |
|       | 二十二 |                                            |                                                                        |
| 學習評量： |     | 參與及學習態度 40%，學習成果報告與實做 40%，學習回饋表 10%，互評 10% |                                                                        |
| 備註：   |     |                                            |                                                                        |



|             |                                                                                                                                      |         |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------|---------|
| 課程名稱：       | 中文名稱：探索課程_走向群山                                                                                                                       |         |
|             | 英文名稱：Adventure Education-Walking towards the mountain range                                                                          |         |
| 授課年段：       | 三上                                                                                                                                   | 學分總數：1  |
| 課程屬性：       | 實作(實驗)及探索體驗                                                                                                                          |         |
| 議題融入：       | 性別平等、環境、生命、安全、家庭教育、戶外教育                                                                                                              |         |
| 師資來源：       | 校內單科                                                                                                                                 |         |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                                         |         |
|             | B溝通互動：B1.符號運用與溝通表達                                                                                                                   |         |
|             | C社會參與：C1.道德實踐與公民意識、C2.人際關係與團隊合作                                                                                                      |         |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                        |         |
| 學習目標：       | 1.學會設計一份登山菜單，考量營養、數量、重量、熱量…。等因素。<br>2.擬定自我訓練的體能計畫，並且實施、紀錄。<br>3.透過負重訓練，練習負重行走、裝備使用、背包使用等登山基礎技能。<br>4.瞭解自己的身體狀況，瞭解高山症可能會造成的風險，學習自我評估。 |         |
| 教學大綱：       | 週次/<br>序                                                                                                                             | 單元/主題   |
|             | 一                                                                                                                                    | 炊煮與菜單設計 |
|             | 二                                                                                                                                    | 炊煮與菜單設計 |
|             | 三                                                                                                                                    | 炊煮與菜單設計 |
|             | 四                                                                                                                                    | 戶外炊事活動  |
|             | 五                                                                                                                                    | 戶外炊事活動  |
|             | 六                                                                                                                                    | 戶外炊事活動  |
|             | 七                                                                                                                                    | 體適能計畫   |
|             | 八                                                                                                                                    | 體適能計畫   |
|             | 九                                                                                                                                    | 高山症的預防  |
|             | 十                                                                                                                                    | 高山症的預防  |
|             | 十一                                                                                                                                   | 登山行走概念  |
|             | 十二                                                                                                                                   | 登山行走概念  |

|       |     |                                            |                                                                                         |
|-------|-----|--------------------------------------------|-----------------------------------------------------------------------------------------|
|       | 十三  | 登山行走概念                                     | 學習穿好登山鞋及鞋帶的綁法，認識登山杖，瞭解登山杖的使用方式，學習休息步和呼吸之間的搭配，上、下坡的方式和體力的調配方式。長距離行走15KM-20KM，練習速度和呼吸的調整。 |
|       | 十四  | 裝備使用與負重訓練                                  | 登高負重訓練，重量背負調整練習，實際將自己所有會使用的裝備進行背包裝填，背包總重量，男生10KG-12KG，女生10KG為目標。                        |
|       | 十五  | 裝備使用與負重訓練                                  | 登高負重訓練，重量背負調整練習，實際將自己所有會使用的裝備進行背包裝填，背包總重量，男生10KG-12KG，女生10KG為目標。                        |
|       | 十六  | 裝備使用與負重訓練                                  | 長登高負重訓練，重量背負調整練習，實際將自己所有會使用的裝備進行背包裝填，背包總重量，男生10KG-12KG，女生10KG為目標。                       |
|       | 十七  | 裝備使用與負重訓練                                  | 登高負重訓練，重量背負調整練習，實際將自己所有會使用的裝備進行背包裝填，背包總重量，男生10KG-12KG，女生10KG為目標。                        |
|       | 十八  | 緩和運動教學                                     | 學習長距離負重訓練之後，讓身體肌肉放鬆和緩和運動，避免肌肉緊繃，造成身體不適。                                                 |
|       | 十九  |                                            |                                                                                         |
|       | 二十  |                                            |                                                                                         |
|       | 二十一 |                                            |                                                                                         |
|       | 二十二 |                                            |                                                                                         |
| 學習評量： |     | 參與及學習態度 40%，學習成果報告與實做 40%，學習回饋表 10%，互評 10% |                                                                                         |
| 備註：   |     |                                            |                                                                                         |



|         |                                                                                                                       |                                                 |
|---------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 課程名稱：   | 中文名稱：探索課程_山的禮物                                                                                                        |                                                 |
|         | 英文名稱：Adventure Education- Gifts of the mountain                                                                       |                                                 |
| 授課年段：   | 三下                                                                                                                    | 學分總數：1                                          |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                           |                                                 |
| 議題融入：   | 性別平等、環境、品德、生命、安全、戶外教育                                                                                                 |                                                 |
| 師資來源：   | 校內單科                                                                                                                  |                                                 |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進、A2.系統思考與問題解決、A3.規劃執行與創新應變                                                                          |                                                 |
|         | B溝通互動：B1.符號運用與溝通表達                                                                                                    |                                                 |
|         | C社會參與：C1.道德實踐與公民意識、C2.人際關係與團隊合作、C3.多元文化與國際理解                                                                          |                                                 |
| 學生圖像：   | 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                         |                                                 |
| 學習目標：   | 1.透過一日領導(LOD)，學習決策、領導、執行…等領導素養。<br>2.登山活動的過程，察覺本身心理的變化，涵養堅毅的精神。<br>3.學會察覺伙伴的身心狀況，給予適當、適時的協助。<br>4.綜合所學的登山知識與技能，適當的展現。 |                                                 |
| 教學大綱：   | 週次/序                                                                                                                  | 單元/主題                                           |
|         | 一                                                                                                                     | 跨出舒適圈                                           |
|         | 二                                                                                                                     | 跨出舒適圈                                           |
|         | 三                                                                                                                     | 跨出舒適圈                                           |
|         | 四                                                                                                                     | 走進大自然                                           |
|         | 五                                                                                                                     | 走進大自然                                           |
|         | 六                                                                                                                     | 走進大自然                                           |
|         | 七                                                                                                                     | 走進大自然                                           |
|         | 八                                                                                                                     | 心的聲音                                            |
|         | 九                                                                                                                     | 心的聲音                                            |
|         | 十                                                                                                                     | 心的聲音                                            |
|         | 十一                                                                                                                    | 屬於你的冒險                                          |
|         | 十二                                                                                                                    | 屬於你的冒險                                          |
|         | 十三                                                                                                                    | 屬於你的冒險                                          |
|         | 十四                                                                                                                    | 邁向頂峰                                            |
|         |                                                                                                                       | 內容綱要                                            |
|         |                                                                                                                       | 登山活動行前安全提醒，檢查相關登山裝備，準備攀登百岳登山活動及心理建設。            |
|         |                                                                                                                       | 登山活動行前安全提醒，檢查相關登山裝備，準備攀登百岳登山活動及心理建設。            |
|         |                                                                                                                       | 登山活動行前安全提醒，檢查相關登山裝備，準備攀登百岳登山活動及心理建設。            |
|         |                                                                                                                       | 正式走入台灣高山環境，學習調整呼吸、步伐與調整背包負重狀態，適應環境所帶來的衝擊。       |
|         |                                                                                                                       | 正式走入台灣高山環境，學習調整呼吸、步伐與調整背包負重狀態，適應環境所帶來的衝擊。       |
|         |                                                                                                                       | 正式走入台灣高山環境，學習調整呼吸、步伐與調整背包負重狀態，適應環境所帶來的衝擊。       |
|         |                                                                                                                       | 正式走入台灣高山環境，學習調整呼吸、步伐與調整背包負重狀態，適應環境所帶來的衝擊。       |
|         |                                                                                                                       | 進行LOD（一日領導）活動，學習察覺團隊的狀態，並當下決策與調節行進順序，維持團隊良好運作。  |
|         |                                                                                                                       | 進行LOD（一日領導）活動，學習察覺團隊的狀態，並當下決策與調節行進順序，維持團隊良好運作。  |
|         |                                                                                                                       | 進行LOD（一日領導）活動，學習察覺團隊的狀態，並當下決策與調節行進順序，維持團隊良好運作。  |
|         |                                                                                                                       | 進行LOD，適應3000公尺以上高山，瞭解身體的狀況避免高山反應，察覺伙伴的身心狀況給予協助。 |
|         |                                                                                                                       | 進行LOD，適應3000公尺以上高山，瞭解身體的狀況避免高山反應，察覺伙伴的身心狀況給予協助。 |
|         |                                                                                                                       | 進行LOD，適應3000公尺以上高山，瞭解身體的狀況避免高山反應，察覺伙伴的身心狀況給予協助。 |
|         |                                                                                                                       | 進行LOD，攀登主峰活動，察覺身心狀態，調整團隊行進速度，完成團隊登頂。            |

|       |     |                                            |                                      |
|-------|-----|--------------------------------------------|--------------------------------------|
|       | 十五  | 邁向頂峰                                       | 進行LOD，攀登主峰活動，察覺身心狀態，調整團隊行進速度，完成團隊登頂。 |
|       | 十六  | 邁向頂峰                                       | 進行LOD，攀登主峰活動，察覺身心狀態，調整團隊行進速度，完成團隊登頂。 |
|       | 十七  |                                            |                                      |
|       | 十八  |                                            |                                      |
|       | 十九  |                                            |                                      |
|       | 二十  |                                            |                                      |
|       | 二十一 |                                            |                                      |
|       | 二十二 |                                            |                                      |
|       |     |                                            |                                      |
| 學習評量： |     | 參與及學習態度 40%，學習成果報告與實做 40%，學習回饋表 10%，互評 10% |                                      |
| 備註：   |     |                                            |                                      |

### 三、多元選修課程

|         |                                                                                                                                        |          |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|----------|
| 課程名稱：   | 中文名稱：日語1                                                                                                                               |          |
|         | 英文名稱：Japanese 1                                                                                                                        |          |
| 授課年段：   | 一上、三上                                                                                                                                  | 學分總數：2   |
| 課程屬性：   | 第二外國語文                                                                                                                                 |          |
| 議題融入：   | 多元文化                                                                                                                                   |          |
| 師資來源：   | 外聘(其他)                                                                                                                                 |          |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                    |          |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                    |          |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                    |          |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |          |
| 學習目標：   | 1) 理解基本日語：掌握常用語彙與日常生活中的基礎語法。<br>2) 建立語言基礎：從50音開始，為進一步學習打下基礎。<br>3) 適應多種學習需求：適合日常交流、旅遊等場合。                                              |          |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題    |
|         | 一                                                                                                                                      | 50音(平假名) |
|         | 二                                                                                                                                      | 50音(平假名) |
|         | 三                                                                                                                                      | 50音(片假名) |
|         | 四                                                                                                                                      | 50音(片假名) |
|         | 五                                                                                                                                      | 50音(複習)  |
|         | 六                                                                                                                                      | 第1課      |
|         | 七                                                                                                                                      | 第1課      |
|         | 八                                                                                                                                      | 第2課      |
|         | 九                                                                                                                                      | 第2課      |
|         | 十                                                                                                                                      | 第3課      |
|         | 十一                                                                                                                                     | 第3課      |
|         | 十二                                                                                                                                     | 標準問題集    |
|         | 十三                                                                                                                                     | 復習A      |
|         | 十四                                                                                                                                     | 第4課      |
|         | 十五                                                                                                                                     | 第4課      |
|         | 十六                                                                                                                                     | 第4課      |
|         | 十七                                                                                                                                     | 第4課      |
|         | 十八                                                                                                                                     | 測驗       |
|         | 十九                                                                                                                                     |          |
|         | 二十                                                                                                                                     |          |
|         | 二十一                                                                                                                                    |          |
|         |                                                                                                                                        |          |

|       |                            |  |  |
|-------|----------------------------|--|--|
|       | 二十                         |  |  |
|       | 二                          |  |  |
| 學習評量： | 課堂參與及實作50%、平時表現25%、期末測驗25% |  |  |
| 備註：   |                            |  |  |

【備查版】

【備查版】

|         |                                                                                                               |                      |
|---------|---------------------------------------------------------------------------------------------------------------|----------------------|
| 課程名稱：   | 中文名稱： 生活中的藝術科學                                                                                                |                      |
|         | 英文名稱： Art and Science in Life                                                                                 |                      |
| 授課年段：   | 一上                                                                                                            | 學分總數： 2              |
| 課程屬性：   | 跨領域/科目統整                                                                                                      |                      |
| 議題融入：   | 環境、資訊、閱讀素養                                                                                                    |                      |
| 師資來源：   | 校內單科                                                                                                          |                      |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決,                                                                                          |                      |
|         | B溝通互動： B2.科技資訊與媒體素養, B3.藝術涵養與美感素養,                                                                            |                      |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                          |                      |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                      |
| 學習目標：   | 本課程是以各類科學相關的手作品製作為主軸，希望學生在親手操作過程中，可以更了解這些手工製品製作的原理和過程並藉由特殊技法的介紹及練習，加入色彩搭配的講解，培養對色彩運用的美感                       |                      |
| 教學大綱：   | 週次/序                                                                                                          | 單元/主題                |
|         | 一                                                                                                             | 手工皂的原理介紹及報告分組        |
|         | 二                                                                                                             | 榛果保濕滋養皂              |
|         | 三                                                                                                             | 分組討論                 |
|         | 四                                                                                                             | 無痕漸層皂                |
|         | 五                                                                                                             | 分組討論                 |
|         | 六                                                                                                             | 花式渲染皂                |
|         | 七                                                                                                             | 分組討論                 |
|         | 八                                                                                                             | 天氣瓶的原理與製作            |
|         | 九                                                                                                             | 行動電化學蝕刻——金屬書籤製作的原理介紹 |
|         | 十                                                                                                             | 行動電化學蝕刻——金屬書籤實作1     |
|         | 十一                                                                                                            | 行動電化學蝕刻——金屬書籤實作2     |
|         | 十二                                                                                                            | 藍染魔法的原理介紹            |
|         | 十三                                                                                                            | 藍染魔法的實作1             |
|         | 十四                                                                                                            | 藍染魔法的實作2             |
|         | 十五                                                                                                            | 浮水畫的原理介紹             |
|         | 十六                                                                                                            | 浮水畫的實作1              |
|         | 十七                                                                                                            | 浮水畫的實作2              |
|         | 十八                                                                                                            | 成果發表                 |
|         | 十九                                                                                                            |                      |
|         | 二十                                                                                                            |                      |
|         | 二十一                                                                                                           |                      |
|         | 二十二                                                                                                           |                      |
| 學習評量：   | 1. 課堂參與 20%<br>2. 各週手工成品 30%<br>3. 主題報告 20%<br>4. 期末展示 30%                                                    |                      |
| 備註：     |                                                                                                               |                      |

|             |                                                                                                                                        |                                                                                                                   |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 西班牙語I                                                                                                                            |                                                                                                                   |
|             | 英文名稱： Spanish I                                                                                                                        |                                                                                                                   |
| 授課年段：       | 一上、三上                                                                                                                                  | 學分總數： 2                                                                                                           |
| 課程屬性：       | 第二外國語文                                                                                                                                 |                                                                                                                   |
| 議題融入：       | 多元文化、國際教育                                                                                                                              |                                                                                                                   |
| 師資來源：       | 外聘(其他)                                                                                                                                 |                                                                                                                   |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進,                                                                                                                   |                                                                                                                   |
|             | B溝通互動： B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                     |                                                                                                                   |
|             | C社會參與： C3.多元文化與國際理解,                                                                                                                   |                                                                                                                   |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                                                                   |
| 學習目標：       | 1. 西班牙文發音、音節、重音規則。<br>2. 基礎句型及語法概念介紹。<br>3. 日常生活表達，包含問候、自我介紹、方位描述、數字、購物、日常習慣等。<br>4. 西語國家文化認識。<br>5. 加強日常生活單字的練習，以擴展學生習得的單字量。          |                                                                                                                   |
| 教學大綱：       | 週次/<br>序                                                                                                                               | 單元/主題                                                                                                             |
|             | 一                                                                                                                                      | 認識西班牙語                                                                                                            |
|             | 二                                                                                                                                      | 自我介紹                                                                                                              |
|             | 三                                                                                                                                      | 國家與國籍                                                                                                             |
|             | 四                                                                                                                                      | 數字0-100                                                                                                           |
|             | 五                                                                                                                                      | 個人資料                                                                                                              |
|             | 六                                                                                                                                      | 教室用品                                                                                                              |
|             | 七                                                                                                                                      | 學術科目                                                                                                              |
|             | 八                                                                                                                                      | 我的校園                                                                                                              |
|             | 九                                                                                                                                      | 文化薰陶                                                                                                              |
|             | 十                                                                                                                                      | 課堂活動                                                                                                              |
|             | 十一                                                                                                                                     | 物品位置在哪裡?                                                                                                          |
|             |                                                                                                                                        | 內容綱要                                                                                                              |
|             |                                                                                                                                        | 西班牙語發音、字母；問候/道別用語；認識同學                                                                                            |
|             |                                                                                                                                        | 詢問/回答個人相關資料，如:姓名(動詞llamarse / apellidarse)；認識同學與表述其姓名                                                             |
|             |                                                                                                                                        | 國家/國籍詞彙<br>形容詞陰/陽性<br>疑問句型：¿Dónde?<br>現在式動詞:Ser                                                                   |
|             |                                                                                                                                        | 詢問/回答年紀<br>詢問/回答電話或傳真號碼<br>詢問/回答電子郵件信箱                                                                            |
|             |                                                                                                                                        | 詢問/回答個人資料，如:稱謂、電話、地址等<br>寫一封內含個人資料的電郵<br>填寫西語版的基本資料表格                                                             |
|             |                                                                                                                                        | 詢問/回答教室用品<br>指出所需的教室用品及其作用<br>跟同學借某項物品                                                                            |
|             |                                                                                                                                        | 學科字彙認識<br>表達喜愛的學科種類                                                                                               |
|             |                                                                                                                                        | 詢問/回答校園設施(設備)<br>描述學校的樣子<br>描述教室物品特徵，如:大/小<br>表達喜好:Me gusta/ No me gusta                                          |
|             |                                                                                                                                        | 西班牙聖誕節：<br>習俗、相關詞彙、傳統節日美食                                                                                         |
|             |                                                                                                                                        | 疑問句型:¿ Qué haces en clase?<br>課堂活動相關詞彙<br>課堂活動相關動詞:leer, escribir, escuchar<br>副詞: mucho ,poco, un poco, bastante |
|             |                                                                                                                                        | -疑問句型:¿ Dónde está...?<br>認識物品位置，詢問/回答<br>動詞: Estar<br>互動遊戲：詢問/回答物品在哪裡                                            |

|       |     |          |                                                                     |
|-------|-----|----------|---------------------------------------------------------------------|
|       | 十二  | 我的生日     | 認識重要的日子:日期與月份<br>生日相關詞彙<br>詢問/回答何時生日<br>分組活動:3人一組,計畫安排一假想友人的慶生派對及禮物 |
|       | 十三  | 現在幾點鐘    | 學習西語版的時間表達<br>詢問/回答時間<br>疑問句型:¿Qué hora es?<br>看時鐘並正確表達出時間          |
|       | 十四  | 我的作息     | 表達每周課表<br>評論課表並分享喜好科目                                               |
|       | 十五  | 總複習      | 第1~14週學習內容總複習                                                       |
|       | 十六  | 影片製作I    | 結合第1~14週所學內容,製作長度約3分鐘的自我介紹(需含基本資料、學科喜好、每週課表等)                       |
|       | 十七  | 影片製作II   | 完成製作長度約3分鐘的自我介紹(需含基本資料、學科喜好、每週課表等)                                  |
|       | 十八  | 成果發表/再見歡 | 自我介紹影片賞析                                                            |
|       | 十九  |          |                                                                     |
|       | 二十  |          |                                                                     |
|       | 二十一 |          |                                                                     |
|       | 二十二 |          |                                                                     |
| 學習評量: |     |          | 課堂參與與實作50%、回家作業25%、隨堂評量25%                                          |
| 備註:   |     |          |                                                                     |



|             |                                                                                                                                                                 |                                                                                           |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：法語1                                                                                                                                                        |                                                                                           |
|             | 英文名稱：French1                                                                                                                                                    |                                                                                           |
| 授課年段：       | 一上、三上                                                                                                                                                           | 學分總數：2                                                                                    |
| 課程屬性：       | 第二外國語文                                                                                                                                                          |                                                                                           |
| 議題融入：       | 多元文化、國際教育                                                                                                                                                       |                                                                                           |
| 師資來源：       | 外聘(其他)                                                                                                                                                          |                                                                                           |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                             |                                                                                           |
|             | B溝通互動：B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                                               |                                                                                           |
|             | C社會參與：C3.多元文化與國際理解,                                                                                                                                             |                                                                                           |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                          |                                                                                           |
| 學習目標：       | 1. 法文發音、音節、重音規則、基礎句型及語法概念介紹。<br>2. 學習日常生活用語表達方式，包含問候、自我介紹、方位描述、數字、購物、日常習慣等等。<br>3. 透過情境式教學，以主題式的授課方式，將所學到的句型運用於日常生活的對話。法語國家文化介紹。<br>4. 加強日常生活單字的練習，以擴展學生習得的單字量。 |                                                                                           |
| 教學大綱：       | 週次/<br>序                                                                                                                                                        | 單元/主題                                                                                     |
|             | 一                                                                                                                                                               | Warmup / Review of French basics                                                          |
|             | 二                                                                                                                                                               | Unit 5 Adomania                                                                           |
|             | 三                                                                                                                                                               | Unit 5 Adomania                                                                           |
|             | 四                                                                                                                                                               | Unit 5 Adomania                                                                           |
|             | 五                                                                                                                                                               | Unit 5 Adomania                                                                           |
|             | 六                                                                                                                                                               | Unit 5 Adomania                                                                           |
|             | 七                                                                                                                                                               | Unit 5 Adomania                                                                           |
|             | 八                                                                                                                                                               | Unit 5 Adomania Creative Work                                                             |
|             | 九                                                                                                                                                               | Review                                                                                    |
|             | 十                                                                                                                                                               | Review                                                                                    |
|             | 十一                                                                                                                                                              | Extra content: a French recipe                                                            |
|             | 十二                                                                                                                                                              | Unit 6 Adomania                                                                           |
|             |                                                                                                                                                                 | 內容綱要                                                                                      |
|             |                                                                                                                                                                 | Numbers<br>Verbs<br>Pronunciation<br>Units 0 to 4                                         |
|             |                                                                                                                                                                 | Vocabulary of the middle school/ High school 1<br>How to say the date<br>Give a grade     |
|             |                                                                                                                                                                 | School schedule<br>What's the time                                                        |
|             |                                                                                                                                                                 | Verb to go "aller"<br>Vocabulary of the middle school/ High school 2<br>Situation in Time |
|             |                                                                                                                                                                 | Questions "où" / "quand"<br>Phonetics [b] and [v]                                         |
|             |                                                                                                                                                                 | Make an appointment<br>Ask for an explanation "Pourquoi" / "Parce que"                    |
|             |                                                                                                                                                                 | Culture : Fêtes et jours fériés                                                           |
|             |                                                                                                                                                                 | Le college de rêve                                                                        |
|             |                                                                                                                                                                 | Review vocabulary and grammar                                                             |
|             |                                                                                                                                                                 | Review vocabulary and grammar                                                             |
|             |                                                                                                                                                                 | La mousse au chocolat                                                                     |
|             |                                                                                                                                                                 | Vocabulary of clothes 1<br>Number from 70 to 100<br>Verb to wear "porter"                 |

|       |     |                               |                                                                                     |
|-------|-----|-------------------------------|-------------------------------------------------------------------------------------|
|       | 十三  | Unit 6 Adomania               | Express a percentage<br>Adjectives ce/cette/ces<br>Ask for price                    |
|       | 十四  | Unit 6 Adomania               | Vocabulary of clothes 2<br>Verb to can “pouvoir”<br>Phonetics [y] and [u]           |
|       | 十五  | Unit 6 Adomania               | Definite and indefinite articles<br>Describe clothes and fashion style              |
|       | 十六  | Unit 6 Adomania Creative Work | Vocabulary of clothes 3<br>Question with quel(le)(s)<br>How to give an appreciation |
|       | 十七  | Review                        | Culture : History of fashion                                                        |
|       | 十八  | Wrap up                       | La mode au collège                                                                  |
|       | 十九  |                               |                                                                                     |
|       | 二十  |                               |                                                                                     |
|       | 二十一 |                               |                                                                                     |
|       | 二十二 |                               |                                                                                     |
| 學習評量： |     | 課堂參與與實作50%、回家作業25%、隨堂評量25%    |                                                                                     |
| 備註：   |     |                               |                                                                                     |

|         |                                                                                                                                                                         |             |
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| 課程名稱：   | 中文名稱：科學論文寫作概論                                                                                                                                                           |             |
|         | 英文名稱：Introduction to Scientific Paper Writing                                                                                                                           |             |
| 授課年段：   | 一上                                                                                                                                                                      | 學分總數：2      |
| 課程屬性：   | 通識性課程                                                                                                                                                                   |             |
| 議題融入：   | 環境、科技、資訊、能源                                                                                                                                                             |             |
| 師資來源：   | 校內單科                                                                                                                                                                    |             |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                     |             |
|         | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                     |             |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                     |             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                  |             |
| 學習目標：   | 一、培養科學基本素養關鍵能力<br>1.自我管理能力的時間管理 2. 閱讀理解能力 3. 培養和別人溝通、合作及解決問題的能力<br>二、培養學生認識科學論文寫作及其基本原則，並練習表格與繪圖之製作與文章撰寫<br>三、提昇學生撰寫研究計畫及論文研究之能力，透過對研究計畫之具體設計與論文撰寫的實際演練，來達成學生具體的研究能力之提昇 |             |
| 教學大綱：   | 週次/序                                                                                                                                                                    | 單元/主題       |
|         | 一                                                                                                                                                                       | 課程介紹        |
|         | 二                                                                                                                                                                       | 科學論文寫作      |
|         | 三                                                                                                                                                                       | 科學論文研究(一)   |
|         | 四                                                                                                                                                                       | 科學論文研究(二)   |
|         | 五                                                                                                                                                                       | 科學論文研究(三)   |
|         | 六                                                                                                                                                                       | 科學論文研究(四)   |
|         | 七                                                                                                                                                                       | 科學論文研究(五)   |
|         | 八                                                                                                                                                                       | 科學論文研究(六)   |
|         | 九                                                                                                                                                                       | 科學論文寫作技巧(一) |
|         | 十                                                                                                                                                                       | 科學論文寫作技巧(二) |
|         | 十一                                                                                                                                                                      | 科學論文寫作技巧(三) |
|         | 十二                                                                                                                                                                      | 科學論文寫作(一)   |
|         | 十三                                                                                                                                                                      | 科學論文寫作(二)   |
|         | 十四                                                                                                                                                                      | 科學論文寫作(三)   |
|         | 十五                                                                                                                                                                      | 科學論文寫作(四)   |
|         | 十六                                                                                                                                                                      | 科學論文口頭報告(一) |
|         | 十七                                                                                                                                                                      | 科學論文口頭報告(二) |
|         | 十八                                                                                                                                                                      | 課程檢討        |
|         | 十九                                                                                                                                                                      |             |
|         | 二十                                                                                                                                                                      |             |
|         | 二十一                                                                                                                                                                     |             |
|         | 二十二                                                                                                                                                                     |             |
| 學習評量：   | 上課參與度10%、學習單15%、口頭報告30%、書面報告30%、回饋分享15%                                                                                                                                 |             |
| 備註：     |                                                                                                                                                                         |             |

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| 課程名稱：   | 中文名稱：英文新聞編採(上)                                                                                                                  |        |
|         | 英文名稱：Our Times                                                                                                                  |        |
| 授課年段：   | 一上                                                                                                                              | 學分總數：2 |
| 課程屬性：   | 跨領域/科目專題                                                                                                                        |        |
| 議題融入：   | 閱讀素養                                                                                                                            |        |
| 師資來源：   | 校內跨科協同                                                                                                                          |        |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                |        |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                |        |
|         | C社會參與：C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                |        |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |        |
| 學習目標：   | 1.新聞文字的認識、規劃、訪問與撰寫。<br>2.認識新聞及寫作倫理。<br>3.關心認識校園、在地與國際議題。<br>4.產出靜心英文報                                                           |        |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題  |
|         | 一                                                                                                                               | 廣播概述   |
|         | 二                                                                                                                               | 校園新聞規劃 |
|         | 三                                                                                                                               | 視頻     |
|         | 四                                                                                                                               | 視頻編輯   |
|         | 五                                                                                                                               | 視頻編輯   |
|         | 六                                                                                                                               | 校園新聞   |
|         | 七                                                                                                                               | 廣播#1   |
|         | 八                                                                                                                               | 廣播#1   |
|         | 九                                                                                                                               | 廣播#1   |
|         | 十                                                                                                                               | 評估與反思  |
|         | 十一                                                                                                                              | 廣播#2   |
|         | 十二                                                                                                                              | 廣播#2   |
|         | 十三                                                                                                                              | 廣播#2   |
|         | 十四                                                                                                                              | 評估與反思  |
|         | 十五                                                                                                                              | 廣播#3   |
|         | 十六                                                                                                                              | 廣播#3   |
|         | 十七                                                                                                                              | 廣播#3   |
|         | 十八                                                                                                                              | 評估與反思  |
|         | 十九                                                                                                                              |        |
|         | 二十                                                                                                                              |        |
|         | 二十一                                                                                                                             |        |
|         | 二十二                                                                                                                             |        |
| 學習評量：   | 課堂互動25%、課堂實作25%、小組合作25%、作品產出25%                                                                                                 |        |
| 備註：     |                                                                                                                                 |        |

|         |                                                                                                                                                                                                                                                       |                 |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 課程名稱：   | 中文名稱： 教室中的元社會                                                                                                                                                                                                                                         |                 |
|         | 英文名稱： Digital Humanities and Society                                                                                                                                                                                                                  |                 |
| 授課年段：   | 一上                                                                                                                                                                                                                                                    | 學分總數： 2         |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                                                                                                                                           |                 |
| 議題融入：   | 人權、環境、科技、資訊、能源、安全、多元文化、閱讀素養、國際教育                                                                                                                                                                                                                      |                 |
| 師資來源：   | 校內跨科協同                                                                                                                                                                                                                                                |                 |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                      |                 |
|         | B溝通互動： B2.科技資訊與媒體素養, B3.藝術涵養與美感素養,                                                                                                                                                                                                                    |                 |
|         | C社會參與： C1.道德實踐與公民意識, C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                      |                 |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                |                 |
| 學習目標：   | 1. 以電腦運算或資訊科技與人文學的交叉學科。讓學生以合作、跨學科與電腦運算等新方法來進行人文學的新研究。<br>2. 推動學生增加對桌遊的認識及寬廣的桌遊設計視野，用「設計思考」打造客製化桌遊，連結社會科所學知識，以桌遊教學配件及實體桌遊的遊戲玩法，讓學生增加對桌遊遊戲機制的認識。<br>3. 輔助閱讀與引導式教學，紙本結合擴增實境的應用，讓學生可以容會課本中知識，以透過智慧型手機掃描，把相關影音、2D、3D 等資訊呼叫出來進行觀看與體驗，有助於設計引導各項學習活動，與延伸學習設計。 |                 |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                  | 單元/主題           |
|         | 一                                                                                                                                                                                                                                                     | 課程說明與介紹         |
|         | 二                                                                                                                                                                                                                                                     | 數位人文的課程說明與介紹    |
|         | 三                                                                                                                                                                                                                                                     | 數位人文學術研究平台應用    |
|         | 四                                                                                                                                                                                                                                                     | 數位人文的實務運用       |
|         | 五                                                                                                                                                                                                                                                     | 數位人文的實務運用       |
|         | 六                                                                                                                                                                                                                                                     | 數位人文的實務運用       |
|         | 七                                                                                                                                                                                                                                                     | 議題桌遊1：大政治家-選戰風雲 |
|         | 八                                                                                                                                                                                                                                                     | 議題桌遊2：抓誑新聞      |
|         | 九                                                                                                                                                                                                                                                     | 議題桌遊3：家分題       |
|         | 十                                                                                                                                                                                                                                                     | 議題桌遊4：霧中審判      |
|         | 十一                                                                                                                                                                                                                                                    | 課程小結：議題桌遊的元社會   |
|         |                                                                                                                                                                                                                                                       |                 |

|       |                                                                                                                   |                     |                                         |
|-------|-------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------|
|       | 十二                                                                                                                | VR與桌遊的相遇-漫步學習元世界(1) | 結合Google Cardboard，設計數位情境式體驗，進行主題探究與省思。 |
|       | 十三                                                                                                                | VR與桌遊的相遇-漫步學習元世界(2) | 結合VR、AR，設計數位情境式體驗，進行主題探究與省思。            |
|       | 十四                                                                                                                | VR與桌遊的相遇-漫步學習元世界(3) | 結合MR，設計數位情境式體驗，進行主題探究與省思。               |
|       | 十五                                                                                                                | 地理桌遊設計:真人大富翁        | 真人版地理大富翁遊戲構思設計與製作                       |
|       | 十六                                                                                                                | 地理桌遊設計:真人大富翁        | 分組進行真人版地理大富翁遊戲操作與競賽                     |
|       | 十七                                                                                                                | 教室中探索世界             | 利用Google Earth探索地球上具有特色的地表景觀            |
|       | 十八                                                                                                                | 課程總結                | 引導學生進行總結性的回顧與分享                         |
|       | 十九                                                                                                                |                     |                                         |
|       | 二十                                                                                                                |                     |                                         |
|       | 二十一                                                                                                               |                     |                                         |
|       | 二十二                                                                                                               |                     |                                         |
| 學習評量： | 1. 分組討論10%<br>2. 學習單成果20%<br>3. 數位平台運用文本操作15%<br>4. 「市場道德辯護人」期末專題報告30%<br>5. 小組評分表10%<br>6. 自評表10%<br>7. 上課資料準備5% |                     |                                         |
| 備註：   |                                                                                                                   |                     |                                         |



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|-------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 德語1                                                                                                                              |                                                                                                                                                   |
|             | 英文名稱： German I                                                                                                                         |                                                                                                                                                   |
| 授課年段：       | 一上、三上                                                                                                                                  | 學分總數： 2                                                                                                                                           |
| 課程屬性：       | 第二外國語文                                                                                                                                 |                                                                                                                                                   |
| 議題融入：       | 多元文化、國際教育                                                                                                                              |                                                                                                                                                   |
| 師資來源：       | 外聘(其他)                                                                                                                                 |                                                                                                                                                   |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進,                                                                                                                   |                                                                                                                                                   |
|             | B溝通互動： B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                     |                                                                                                                                                   |
|             | C社會參與： C3.多元文化與國際理解,                                                                                                                   |                                                                                                                                                   |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                                                                                                   |
| 學習目標：       | 1. 德文發音規則。<br>2. 基礎句型及語法概念介紹。<br>3. 日常生活表達，包含問候、自我介紹、數字、日常習慣等。<br>4. 德語國家文化認識。<br>5. 加強日常生活單字的練習，以擴展學生習得的單字量。                          |                                                                                                                                                   |
| 教學大綱：       | 週次/<br>序                                                                                                                               | 單元/主題                                                                                                                                             |
|             | 一                                                                                                                                      | Al.1 coursebook lesson 1 - German alphabet and numbers 1-20, practicing self-greetings and self-introduction                                      |
|             | 二                                                                                                                                      | Al.1 coursebook lesson 1 - German alphabet and numbers 1-20, greetings and self-introduction starting lesson 2 - hobbies and free time activities |
|             | 三                                                                                                                                      | Al.1 coursebook lesson 2 - hobbies and free time activities                                                                                       |
|             | 四                                                                                                                                      | revision lesson 1-2, starting Al.1 lesson 3 - geography and "how are you?"                                                                        |
|             | 五                                                                                                                                      | First exam (lesson 1-2) Finishing coursebook lesson 3 - geography and "how are you?"                                                              |
|             | 六                                                                                                                                      | Discussing exam results Al.1 coursebook lesson 4 - school subjects and days of the week, languages, expression opinions                           |
|             | 七                                                                                                                                      | Al.1 coursebook lesson 4 - school subjects and days of the week, languages, expression opinions                                                   |
|             | 八                                                                                                                                      | Al.1 coursebook lesson 5 - expression needs and wishes German, stationery and school supplies and other objects                                   |
|             | 九                                                                                                                                      | Al.1 coursebook lesson 5 - expression needs and wishes German, stationery and school supplies and other objects                                   |
|             | 十                                                                                                                                      | Revision lesson 1-5                                                                                                                               |
|             | 十一                                                                                                                                     | second exam (lesson 3-5) starting Al.1 coursebook lesson 6 -                                                                                      |



|       |                            |                                                                                                                                                       |                                                                                          |
|-------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|       |                            | talking about time, duties and abilities                                                                                                              | e stationary shop or presenting a day at school                                          |
|       | 十二                         | Discussing exam results A1.1 coursebook lesson 6 - talking about time, duties and abilities                                                           | 1. 星期、日期的講法<br>2. 科目                                                                     |
|       | 十三                         | Revision A1.1 coursebook lesson 6 - talking about time, duties and abilities Starting A1.1 coursebook lesson 7 - talking about family and professions | Activities: conversation practice - agreeing on a time for meeting up with classmates    |
|       | 十四                         | A1.1 coursebook lesson 7 - talking about family and professions                                                                                       | Activities: creating a family tree as well as a poster about wishes on future profession |
|       | 十五                         | Revision lessons 1-7                                                                                                                                  | Activities: writing dialogues in groups                                                  |
|       | 十六                         | Final exam (lessons 1-7, speaking part: individually as well as presenting group dialogues), wrap-up                                                  | (filming group dialogues)                                                                |
|       | 十七                         | Review                                                                                                                                                | Review vocabulary and grammar                                                            |
|       | 十八                         | Wrap up                                                                                                                                               | Reflection for the semester                                                              |
|       | 十九                         |                                                                                                                                                       |                                                                                          |
|       | 二十                         |                                                                                                                                                       |                                                                                          |
|       | 二十一                        |                                                                                                                                                       |                                                                                          |
|       | 二十二                        |                                                                                                                                                       |                                                                                          |
| 學習評量： | 課堂參與與實作50%、隨堂評量20%、期末評量30% |                                                                                                                                                       |                                                                                          |
| 備註：   |                            |                                                                                                                                                       |                                                                                          |

|         |                                                                                                                                            |                                        |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 課程名稱：   | 中文名稱： 日語2                                                                                                                                  |                                        |
|         | 英文名稱： Japanese 2                                                                                                                           |                                        |
| 授課年段：   | 一下、三下                                                                                                                                      | 學分總數： 2                                |
| 課程屬性：   | 第二外國語文                                                                                                                                     |                                        |
| 議題融入：   | 多元文化                                                                                                                                       |                                        |
| 師資來源：   | 外聘(其他)                                                                                                                                     |                                        |
| 課綱核心素養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                      |                                        |
|         | B溝通互動： B1. 符號運用與溝通表達,                                                                                                                      |                                        |
|         | C社會參與： C3. 多元文化與國際理解,                                                                                                                      |                                        |
| 學生圖像：   | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                        |
| 學習目標：   | 1. 理解基本日語：掌握常用語彙與日常生活中的基礎語法。<br>2. 建立語言基礎：從50音開始，為進一步學習打下基礎。<br>3. 適應多種學習需求：適合日常交流、旅遊等場合。                                                  |                                        |
| 教學大綱：   | 週次/序                                                                                                                                       | 單元/主題                                  |
|         | 一                                                                                                                                          | 復習                                     |
|         | 二                                                                                                                                          | 復習                                     |
|         | 三                                                                                                                                          | 第5課                                    |
|         | 四                                                                                                                                          | 第5課                                    |
|         | 五                                                                                                                                          | 第5課                                    |
|         | 六                                                                                                                                          | 第6課                                    |
|         | 七                                                                                                                                          | 第6課                                    |
|         | 八                                                                                                                                          | 第6課                                    |
|         | 九                                                                                                                                          | 標準問題集                                  |
|         | 十                                                                                                                                          | 第7課                                    |
|         | 十一                                                                                                                                         | 第7課                                    |
|         | 十二                                                                                                                                         | 第7課                                    |
|         | 十三                                                                                                                                         | 復習B                                    |
|         | 十四                                                                                                                                         | 第8課                                    |
|         | 十五                                                                                                                                         | 第8課                                    |
|         | 十六                                                                                                                                         | 第8課                                    |
|         | 十七                                                                                                                                         | 標準問題集                                  |
|         | 十八                                                                                                                                         | 測驗                                     |
|         | 十九                                                                                                                                         |                                        |
|         | 二十                                                                                                                                         |                                        |
|         |                                                                                                                                            | 內容綱要                                   |
|         |                                                                                                                                            | 第1~2課                                  |
|         |                                                                                                                                            | 第3~4課                                  |
|         |                                                                                                                                            | 課文：“這班電車有到甲子園嗎?” p. 70~79<br>句型練習A(文法) |
|         |                                                                                                                                            | 課文：“這班電車有到甲子園嗎?”<br>單字、相關單字詞彙、例文、會話練習  |
|         |                                                                                                                                            | 課文：“這班電車有到甲子園嗎?”<br>句型練習B. C/聽力. 造句練習  |
|         |                                                                                                                                            | 課文：“要一起去嗎?” p. 80~89<br>句型練習A(文法)      |
|         |                                                                                                                                            | 課文：“要一起去嗎?”<br>單字/相關單字詞彙/例文/會話練習       |
|         |                                                                                                                                            | 課文：“要一起去嗎?”<br>單字/相關單字詞彙/例文/會話練習       |
|         |                                                                                                                                            | 第5~6課/檢討                               |
|         |                                                                                                                                            | 課文：“歡迎光臨” p. 90~99<br>句型練習A(文法)        |
|         |                                                                                                                                            | 課文：“歡迎光臨”<br>單字/相關詞彙/例文/會話練習           |
|         |                                                                                                                                            | 課文：“歡迎光臨”<br>練習B. C/聽力. 造句練習           |
|         |                                                                                                                                            | 第4~7課復習p. 100~101 + 小測驗                |
|         |                                                                                                                                            | 課文：“差不多該告辭了” p. 102~111<br>句型練習A(文法)   |
|         |                                                                                                                                            | 課文：“差不多該告辭了”<br>單字/相關單字詞彙/例文/會話練習      |
|         |                                                                                                                                            | 課文：“差不多該告辭了”<br>單字(形容詞)複習/練習B. C/聽力練習  |
|         |                                                                                                                                            | 第7~8課/檢討                               |
|         |                                                                                                                                            | 課堂測驗(5~8課)                             |

|       |     |  |  |
|-------|-----|--|--|
|       | 二十一 |  |  |
|       | 二十二 |  |  |
| 學習評量： |     |  |  |
| 備註：   |     |  |  |

【備查版】

|         |                                                                                                                                    |         |                                                                                                                                      |
|---------|------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 自然科學方法論                                                                                                                      |         |                                                                                                                                      |
|         | 英文名稱： Methodologies in Natural Science                                                                                             |         |                                                                                                                                      |
| 授課年段：   | 一下                                                                                                                                 | 學分總數： 2 |                                                                                                                                      |
| 課程屬性：   | 通識性課程                                                                                                                              |         |                                                                                                                                      |
| 議題融入：   | 科技、資訊、閱讀素養                                                                                                                         |         |                                                                                                                                      |
| 師資來源：   | 校內單科                                                                                                                               |         |                                                                                                                                      |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決,                                                                                                               |         |                                                                                                                                      |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                               |         |                                                                                                                                      |
|         | C社會參與：                                                                                                                             |         |                                                                                                                                      |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |         |                                                                                                                                      |
| 學習目標：   | 1.能運用閱讀策略，掌握專業學術文獻的關鍵字句資訊<br>2.能在掌握整篇文獻的篇章論述及問題意識的前提下書寫摘要<br>3.能透過多元資料蒐集及前述閱讀分析的能力訂定合適研究題目<br>4.能運用簡報技巧，將他人及自身想法創見做有效表達            |         |                                                                                                                                      |
| 教學大綱：   | 週次/<br>序                                                                                                                           | 單元/主題   | 內容綱要                                                                                                                                 |
|         | 一                                                                                                                                  | 課程概述    | 1.宣達課程目標並導讀課程用書<br>2.課程分組與題目預填<br>3.提供摘要書寫範例並將自身題目摘要當作作業                                                                             |
|         | 二                                                                                                                                  | 文獻架構    | 1.常用文獻資料庫簡介與實作：Arxiv、Sci-hub<br>2.文獻引用格式介紹<br>3.科學論文架構:Abstract、Introduction、Method、Results、Discussion 說明<br>4.以資料庫蒐集至少三篇相關文獻，並分析其架構 |
|         | 三                                                                                                                                  | 簡介撰寫    | 1.介紹簡介所需包含的子架構:Setting、Review of literature、Specific Research problem<br>2.各組討論並分析上週所蒐集三篇文獻的簡介<br>3.撰寫自身研究題目的簡介                      |
|         | 四                                                                                                                                  | 研究方法    | 1.介紹研究方法所需包含的子架構: Restriction/Limiting Condition、Procedures、Materials<br>2.各組討論並分析所蒐集三篇文獻的研究方法<br>3.撰寫自身研究題目的研究方法                    |
|         | 五                                                                                                                                  | 研究結果-1  | 1.數理統計基礎概念介紹:敘述統計與推論統計<br>2.常用統計軟體介紹:Excel、google試算表、SciDAVis<br>3.提供實作範例題並作為回家作業                                                    |
|         | 六                                                                                                                                  | 研究結果-2  | 1.統計軟體實作:基本散佈圖繪製<br>2.擬合與線性回歸概念介紹<br>3.統計統計軟體實作:趨勢線、R2值與誤差線繪製                                                                        |
|         | 七                                                                                                                                  | 研究結果-3  | 1.繳交統計軟體繪圖作業<br>2.練習繪製自身題目統計圖形                                                                                                       |
|         | 八                                                                                                                                  | 研究結果-4  | 1.介紹研究方法所需包含的子架構: Results、Comments<br>2.各組討論並分析所蒐集三篇文獻的結果書寫<br>3.撰寫自身研究題目的研究結果                                                       |
|         | 九                                                                                                                                  | 討論      | 1.介紹討論所需包含的子架構: Original Hypothesis、Findings、Future Prospect                                                                         |

|       |     |                                                                        |                                                                                                                  |
|-------|-----|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|       |     |                                                                        | 2. 各組討論並分析所蒐集三篇文獻的討論書寫<br>3. 撰寫自身研究题目的討論                                                                         |
|       | 十   | 摘要                                                                     | 1. 介紹討論所需包含的子架構: Background、Purpose、Method、Results、Conclusion<br>2. 各組討論並分析所蒐集三篇文獻的摘要書寫<br>3. 撰寫自身研究题目的摘要        |
|       | 十一  | 參考文獻                                                                   | 1. 參考文獻分類方式及格式介紹<br>2. 撰寫自身研究题目參考文獻<br>3. 文書軟體排版功能介紹及演練<br>4. 調整自身研究题目排版及格式                                      |
|       | 十二  | 簡報製作                                                                   | 1. 常用簡報軟體簡介與實作: Powerpoint、google簡報<br>2. 簡報軟體常用功能介紹: 投影片母片、版面配置、索引標籤<br>3. 色彩學: 互補色原理與伊登十二色相環<br>4. 製作自身研究题目投影片 |
|       | 十三  | 期中報告-1                                                                 | 進行分組報告與填寫各組互評表                                                                                                   |
|       | 十四  | 期中報告-2                                                                 | 進行分組報告與填寫各組互評表                                                                                                   |
|       | 十五  | 學術海報製作                                                                 | 1. 向量繪圖軟體介紹與實作: Illustrator、Inkscape<br>2. 基本圖形繪製功能: 去背、點陣圖轉向量圖、圖形再製<br>3. 製作自身研究题目學術海報                          |
|       | 十六  | 準備公開展演                                                                 | 海報製作與預講、修正細節問題                                                                                                   |
|       | 十七  | 校內公開展演                                                                 | 安排修課學生與校內師生                                                                                                      |
|       | 十八  | 期末回饋                                                                   | 學生填寫課程回饋與自評表                                                                                                     |
|       | 十九  |                                                                        |                                                                                                                  |
|       | 二十  |                                                                        |                                                                                                                  |
|       | 二十一 |                                                                        |                                                                                                                  |
|       | 二十二 |                                                                        |                                                                                                                  |
| 學習評量: |     | 1. 分項作業繳交 25%<br>2. 期中紙本論文繳交 25%<br>3. 期末口頭報告 25%<br>4. 校內公開展演綜合表現 25% |                                                                                                                  |
| 備註:   |     |                                                                        |                                                                                                                  |

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|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 西班牙語2                                                                                                                                |                                                                                                                                      |
|             | 英文名稱： Spanish 2                                                                                                                            |                                                                                                                                      |
| 授課年段：       | 一下、三下                                                                                                                                      | 學分總數： 2                                                                                                                              |
| 課程屬性：       | 第二外國語文                                                                                                                                     |                                                                                                                                      |
| 議題融入：       | 多元文化、國際教育                                                                                                                                  |                                                                                                                                      |
| 師資來源：       | 外聘(其他)                                                                                                                                     |                                                                                                                                      |
| 課綱核心素<br>養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                      |                                                                                                                                      |
|             | B溝通互動： B1. 符號運用與溝通表達, B3. 藝術涵養與美感素養,                                                                                                       |                                                                                                                                      |
|             | C社會參與： C3. 多元文化與國際理解,                                                                                                                      |                                                                                                                                      |
| 學生圖像：       | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                                                                                      |
| 學習目標：       | 1. 西班牙文發音、音節、重音規則。<br>2. 基礎句型及語法概念介紹。<br>3. 日常生活表達，包含問候、自我介紹、方位描述、數字、購物、日常習慣等。<br>4. 西語國家文化認識。<br>5. 加強日常生活單字的練習，以擴展學生習得的單字量。              |                                                                                                                                      |
| 教學大綱：       | 週次/<br>序                                                                                                                                   | 單元/主題                                                                                                                                |
|             | 一                                                                                                                                          | 外表特徵                                                                                                                                 |
|             | 二                                                                                                                                          | 描述個性                                                                                                                                 |
|             | 三                                                                                                                                          | 家庭介紹                                                                                                                                 |
|             | 四                                                                                                                                          | 認識顏色                                                                                                                                 |
|             | 五                                                                                                                                          | 我的日常                                                                                                                                 |
|             | 六                                                                                                                                          | 我的日常II                                                                                                                               |
|             | 七                                                                                                                                          | 興趣嗜好+文化饗宴                                                                                                                            |
|             | 八                                                                                                                                          | 家事篇                                                                                                                                  |
|             | 九                                                                                                                                          | 未來計畫                                                                                                                                 |
|             |                                                                                                                                            | 內容綱要                                                                                                                                 |
|             |                                                                                                                                            | 詢問/回答某人的外表特徵<br>表達外表特徵相關詞彙<br>分組活動:2人一組，向大家描述你的組員                                                                                    |
|             |                                                                                                                                            | 與個性相關詞彙<br>陰/陽詞性介紹<br>隨機挑選名人，並描述其外表特徵、個性等                                                                                            |
|             |                                                                                                                                            | 家庭成員相關詞彙<br>描述我的家庭<br>繪製西語版家譜<br>動詞: Tener<br>疑問句型: ¿ Cuántos hermanos tienes?                                                       |
|             |                                                                                                                                            | 顏色詞彙<br>名詞與陰/陽詞性搭配使用<br>說出教室物品名稱及顏色                                                                                                  |
|             |                                                                                                                                            | 日常例行詞彙<br>疑問句型:¿ Qué haces normalmente?<br>詢問同學日常例行公事<br>反身動詞                                                                        |
|             |                                                                                                                                            | 設計一假想人物日常例行公事，口述分享<br>與同學的假想日常比較異同                                                                                                   |
|             |                                                                                                                                            | 動詞gustar肯定/否定用法<br>疑問句型: ¿Qué te gusta...?<br>討論興趣嗜好並表達個人意見<br>西班牙聖周介紹(Semana Santa)                                                 |
|             |                                                                                                                                            | 家事相關詞彙<br>疑問句型: ¿ Qué haces en casa?<br>規則/不規則動詞變化<br>分組活動: 5人一組，Hacer una encuesta en grupos de 5 para ver quien ayuda más en clase |
|             |                                                                                                                                            | 即期未來句型:Ir a<br>分享這周末即將要做的事物<br>詢問3位同學的週末計畫                                                                                           |



|       |     |                                      |                                                                    |
|-------|-----|--------------------------------------|--------------------------------------------------------------------|
|       | 十   | 你昨天做什麼？                              | 過去簡單式<br>疑問句型：¿ Qué hiciste ayer?<br>過去式動詞規則詞變<br>寫作：昨天做了什麼(約150字) |
|       | 十一  | 你昨天做什麼？ II                           | 過去簡單式<br>寫作：上週做了什麼(約350字)<br>詢問同學上週做了什麼，且口頭轉述分享                    |
|       | 十二  | 居家環境                                 | 房屋種類與居家格局相關詞彙<br>學生分享描述自己居家環境<br>分組活動：3人一組討論分享，居家環境                |
|       | 十三  | 我的房間                                 | 房間物品與形容(如：大/小)相關詞彙<br>詢問同學的房間樣子¿ Cómo es tu habitación?<br>描述自己的房間 |
|       | 十四  | 那裡有沒有…？                              | Hay用法<br>學校/家裡 有/沒有 某樣東西?<br>動詞Tener與haber用法及差異                    |
|       | 十五  | 總複習                                  | 第1~14週學習內容總複習                                                      |
|       | 十六  | 海報製作I：我的一天                           | 繪製一天的作息：需使用到所學的反身動詞、現在式(圖片+文字)                                     |
|       | 十七  | 海報製作II：我的一天                          | 完成一天的作息：需使用到所學的反身動詞、現在式(圖片+文字)                                     |
|       | 十八  | 成果發表                                 | 各組海報賞析/再見歡                                                         |
|       | 十九  |                                      |                                                                    |
|       | 二十  |                                      |                                                                    |
|       | 二十一 |                                      |                                                                    |
|       | 二十二 |                                      |                                                                    |
| 學習評量： |     | 課堂互動與實作25%、回家作業25%、隨堂評量25%、小組期末報告25% |                                                                    |
| 備註：   |     |                                      |                                                                    |

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|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 課程名稱：   | 中文名稱： 岩石的探索-台灣岩石的分布與用途                                                                                                                                                                              |         |
|         | 英文名稱： Exploring Rocks - Distribution and Uses of Rocks in Taiwan                                                                                                                                    |         |
| 授課年段：   | 一下                                                                                                                                                                                                  | 學分總數： 2 |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                                                                                         |         |
| 議題融入：   | 環境、戶外教育                                                                                                                                                                                             |         |
| 師資來源：   | 校內單科                                                                                                                                                                                                |         |
| 課綱核心素養： | A自主行動： A3. 規劃執行與創新應變，                                                                                                                                                                               |         |
|         | B溝通互動： B2. 科技資訊與媒體素養，                                                                                                                                                                               |         |
|         | C社會參與： C2. 人際關係與團隊合作，                                                                                                                                                                               |         |
| 學生圖像：   | 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3. 個性完善：愛心熱誠、誠信正直、自律自省。,                                                                                                                                         |         |
| 學習目標：   | 1. 知道三大岩類的形成成因及認識三大岩類和岩石循環的關係。<br>2. 知道岩石是由礦物組成，能由外觀與某些物理性質區分沉積岩、火成岩、變質岩。<br>3. 知道常見的岩石各屬於三大岩類中的哪一類；並能具體描繪或指出岩石的特徵。<br>4. 了解岩石在生活中的各種用途。<br>5. 臺灣岩石的地理的分布。<br>6. 提供未來對於地球科學有興趣的學生選擇職業的參考(例如:寶石鑑定專家) |         |
| 教學大綱：   | 週次/序                                                                                                                                                                                                | 單元/主題   |
|         | 一                                                                                                                                                                                                   | 火成岩(一)  |
|         | 二                                                                                                                                                                                                   | 火成岩(二)  |
|         | 三                                                                                                                                                                                                   | 火成岩(三)  |
|         | 四                                                                                                                                                                                                   | 火成岩(四)  |
|         | 五                                                                                                                                                                                                   | 火成岩(五)  |
|         | 六                                                                                                                                                                                                   | 沉積岩(一)  |
|         | 七                                                                                                                                                                                                   | 沉積岩(二)  |
|         | 八                                                                                                                                                                                                   | 沉積岩(三)  |
|         | 九                                                                                                                                                                                                   | 沉積岩(四)  |
|         | 十                                                                                                                                                                                                   | 沉積岩(五)  |
|         | 十一                                                                                                                                                                                                  | 變質岩(一)  |
|         | 十二                                                                                                                                                                                                  | 變質岩(二)  |
|         | 十三                                                                                                                                                                                                  | 變質岩(三)  |
|         | 十四                                                                                                                                                                                                  | 變質岩(四)  |
|         | 十五                                                                                                                                                                                                  | 變質岩(五)  |
|         | 十六                                                                                                                                                                                                  | 校外實察    |
|         | 十七                                                                                                                                                                                                  | 心得回饋    |
|         | 十八                                                                                                                                                                                                  | 期末統整    |
|         | 十九                                                                                                                                                                                                  |         |
|         | 二十                                                                                                                                                                                                  |         |
|         | 二十一                                                                                                                                                                                                 |         |
|         | 二十二                                                                                                                                                                                                 |         |
| 學習評量：   | 學習單25%；口頭報告25%；岩石礦物辨識測驗25%；校外實察心得報告分享25%                                                                                                                                                            |         |
| 備註：     |                                                                                                                                                                                                     |         |

|         |                                                                                                                                                              |                                                                                              |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 法語2                                                                                                                                                    |                                                                                              |
|         | 英文名稱： French2                                                                                                                                                |                                                                                              |
| 授課年段：   | 一下、三下                                                                                                                                                        | 學分總數： 2                                                                                      |
| 課程屬性：   | 第二外國語文                                                                                                                                                       |                                                                                              |
| 議題融入：   | 多元文化、國際教育                                                                                                                                                    |                                                                                              |
| 師資來源：   | 外聘(其他)                                                                                                                                                       |                                                                                              |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進,                                                                                                                                         |                                                                                              |
|         | B溝通互動： B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                                           |                                                                                              |
|         | C社會參與： C3.多元文化與國際理解,                                                                                                                                         |                                                                                              |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                       |                                                                                              |
| 學習目標：   | 1. 法文發音、音節、重音規則、基礎句型及語法概念介紹。<br>2.學習日常生活用語表達方式，包含問候、自我介紹、方位描述、數字、購物、日常習慣等等。<br>3.透過情境式教學，以主題式的授課方式，將所學到的句型運用於日常生活的對話。法語國家文化介紹。<br>4.加強日常生活單字的練習，以擴展學生習得的單字量。 |                                                                                              |
| 教學大綱：   | 週次/<br>序                                                                                                                                                     | 單元/主題                                                                                        |
|         | 一                                                                                                                                                            | Unit 7 Adomania<br>Vocabulary of the House 1<br>Phonetics [s] and [z]<br>Where do you live ? |
|         | 二                                                                                                                                                            | Unit 7 Adomania<br>Prepositions of place<br>Verb to come “venir”<br>Phonetics [ɛ̃] and [ɛn]  |
|         | 三                                                                                                                                                            | Unit 7 Adomania<br>Vocabulary of the House 2<br>Describe your room<br>How to invite a friend |
|         | 四                                                                                                                                                            | Unit 7 Adomania<br>Imperative verbs<br>Give and take a phone call                            |
|         | 五                                                                                                                                                            | Unit 7 Adomania<br>Culture : Drôles de maisons                                               |
|         | 六                                                                                                                                                            | Unit 7 Adomania<br>La maison idéale                                                          |
|         | 七                                                                                                                                                            | Unit 7 Adomania Creative Work<br>La maison idéale                                            |
|         | 八                                                                                                                                                            | Review<br>Review vocabulary and grammar                                                      |
|         | 九                                                                                                                                                            | Exam for Unit 7 content<br>Review vocabulary and grammar                                     |
|         | 十                                                                                                                                                            | Extra content: a French recipe<br>Les crêpes                                                 |
|         | 十一                                                                                                                                                           | Unit 8 Adomania<br>Vocabulary of geography 1<br>Express your dreams<br>Phonetics [ɔ̃]        |
|         | 十二                                                                                                                                                           | Unit 8 Adomania<br>Holiday activities<br>Verb to leave “partir”                              |
|         | 十三                                                                                                                                                           | Unit 8 Adomania<br>Vocabulary of geography 3<br>Near future                                  |
|         | 十四                                                                                                                                                           | Unit 8 Adomania<br>Prepositions for countries, cities<br>Choose a travel destination         |
|         | 十五                                                                                                                                                           | Unit 8 Adomania<br>Vocabulary of the weather<br>Localise a place<br>Talk about the weather   |
|         | 十六                                                                                                                                                           | Unit 8 Adomania Creative Work<br>Culture : Photos mystérieuses                               |

|       |     |                            |                    |
|-------|-----|----------------------------|--------------------|
|       | 十七  | Review                     | Ah! Les vacances!  |
|       | 十八  | Final class                | French x Boardgame |
|       | 十九  |                            |                    |
|       | 二十  |                            |                    |
|       | 二十一 |                            |                    |
|       | 二十二 |                            |                    |
|       |     |                            |                    |
| 學習評量： |     | 課堂參與與實作50%、回家作業25%、隨堂評量25% |                    |
| 備註：   |     |                            |                    |

|             |                                                                                                                                 |        |
|-------------|---------------------------------------------------------------------------------------------------------------------------------|--------|
| 課程名稱：       | 中文名稱：英文新聞編採(下)                                                                                                                  |        |
|             | 英文名稱：Our Times                                                                                                                  |        |
| 授課年段：       | 一下                                                                                                                              | 學分總數：2 |
| 課程屬性：       | 跨領域/科目專題                                                                                                                        |        |
| 議題融入：       | 閱讀素養                                                                                                                            |        |
| 師資來源：       | 校內跨科協同                                                                                                                          |        |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                |        |
|             | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                |        |
|             | C社會參與：C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                |        |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |        |
| 學習目標：       | 1.新聞文字的認識、規劃、訪問與撰寫。<br>2.認識新聞及寫作倫理。<br>3.關心認識校園、在地與國際議題。<br>4.產出靜心英文報                                                           |        |
| 教學大綱：       | 週次/<br>序                                                                                                                        | 單元/主題  |
|             | 一                                                                                                                               | 刊物概述   |
|             | 二                                                                                                                               | 校園新聞規劃 |
|             | 三                                                                                                                               | 刊物     |
|             | 四                                                                                                                               | 刊物編輯   |
|             | 五                                                                                                                               | 刊物編輯   |
|             | 六                                                                                                                               | 校園新聞   |
|             | 七                                                                                                                               | 刊物#1   |
|             | 八                                                                                                                               | 刊物#1   |
|             | 九                                                                                                                               | 刊物#1   |
|             | 十                                                                                                                               | 評估與反思  |
|             | 十一                                                                                                                              | 刊物#2   |
|             | 十二                                                                                                                              | 刊物#2   |
|             | 十三                                                                                                                              | 刊物#2   |
|             | 十四                                                                                                                              | 評估與反思  |
|             | 十五                                                                                                                              | 刊物#3   |
|             | 十六                                                                                                                              | 刊物#3   |
|             | 十七                                                                                                                              | 刊物#3   |
|             | 十八                                                                                                                              | 評估與反思  |
|             | 十九                                                                                                                              |        |
|             | 二十                                                                                                                              |        |
|             | 二十一                                                                                                                             |        |
|             | 二十二                                                                                                                             |        |
| 學習評量：       | 課堂互動25%、課堂實作25%、小組合作25%、作品產出25%                                                                                                 |        |
| 備註：         |                                                                                                                                 |        |

|         |                                                                                                            |           |                                                         |
|---------|------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------|
| 課程名稱：   | 中文名稱： 桌遊漫遊與創作                                                                                              |           |                                                         |
|         | 英文名稱： Creation of Board Games                                                                              |           |                                                         |
| 授課年段：   | 一下                                                                                                         | 學分總數：2    |                                                         |
| 課程屬性：   | 跨領域/科目統整                                                                                                   |           |                                                         |
| 議題融入：   | 海洋、生命、科技                                                                                                   |           |                                                         |
| 師資來源：   | 校內單科                                                                                                       |           |                                                         |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決,                                                                                       |           |                                                         |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養, B3.藝術涵養與美感素養,                                                           |           |                                                         |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                       |           |                                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |           |                                                         |
| 學習目標：   | 透過各種桌遊的體驗，可以了解不同方面的知識概念，並經由分組討論，整理出各種桌遊在設計上的邏輯以及融合討論、思考、整合知識、創造等不同的素養能力。                                   |           |                                                         |
| 教學大綱：   | 週次/序                                                                                                       | 單元/主題     | 內容綱要                                                    |
|         | 一                                                                                                          | 桌遊介紹      | 本學期的課程介紹、以及桌遊設計的概念介紹                                    |
|         | 二                                                                                                          | 桌遊體驗及分組討論 | 小品桌遊體驗，且作桌遊設計的分組                                        |
|         | 三                                                                                                          | 化學事       | 構築化學式的方式，記憶化合物的元素組成                                     |
|         | 四                                                                                                          | 化學事       | 討論化學事的設計概念                                              |
|         | 五                                                                                                          | C V人生規劃   | 此款桌遊讓學生體驗人的一生，規劃自我的人生                                   |
|         | 六                                                                                                          | C V人生規劃   | 討論此款桌遊的規則邏輯                                             |
|         | 七                                                                                                          | WinWin保險+ | 體驗教育專業及保險經營專業的策略型教育桌遊                                   |
|         | 八                                                                                                          | WinWin保險+ | 討論此款桌遊如何將各項知識融合                                         |
|         | 九                                                                                                          | 演化論桌遊     | 生物學科的桌遊，從桌遊中了解生物知識                                      |
|         | 十                                                                                                          | 演化論桌遊     | 探討此款桌遊中包含的遊戲邏輯                                          |
|         | 十一                                                                                                         | 數學桌遊      | 嘗試多款不同的數學桌遊                                             |
|         | 十二                                                                                                         | 數學桌遊      | 討論其中涵蓋的數學邏輯運算                                           |
|         | 十三                                                                                                         | 桌遊設計      | 結合學科(自然科學或數學)知識，各組設計一款桌遊，包含故事背景、規則與美感設計：桌遊主題擬定。         |
|         | 十四                                                                                                         | 桌遊設計      | 結合學科(自然科學或數學)知識，各組設計一款桌遊，包含故事背景、規則與美感設計：桌遊的認知理論和遊戲元素確認。 |
|         | 十五                                                                                                         | 桌遊設計      | 結合學科(自然科學或數學)知識，各組設計一款桌遊，包含故事背景、規則與美感設計：遊戲規則說明書擬定。      |
|         | 十六                                                                                                         | 桌遊設計      | 結合學科(自然科學或數學)知識，各組設計一款桌遊，包含故事背景、規則與美感設計：桌遊的配件製作。        |
|         | 十七                                                                                                         | 成果發表      | 製作投影片跟影片，介紹桌遊的設計原理跟玩法                                   |
|         | 十八                                                                                                         | 成果發表      | 分組上台報告。                                                 |
|         | 十九                                                                                                         |           |                                                         |
|         | 二十                                                                                                         |           |                                                         |
|         | 二十一                                                                                                        |           |                                                         |
| 二十二     |                                                                                                            |           |                                                         |

|       |                                                             |
|-------|-------------------------------------------------------------|
| 學習評量： | 1. 出席、課堂表現20%<br>2. 使用心得報告10%<br>3. 桌遊設計報告20%<br>4. 桌遊作品50% |
| 備註：   |                                                             |

【備查版】

【備查版】



|         |                                                                                               |                                                                            |
|---------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 傳播學的想像                                                                                  |                                                                            |
|         | 英文名稱： imagining communication theory                                                          |                                                                            |
| 授課年段：   | 一下                                                                                            | 學分總數： 2                                                                    |
| 課程屬性：   | 職涯試探                                                                                          |                                                                            |
| 議題融入：   | 科技、資訊、生涯規劃、多元文化、閱讀素養、國際教育                                                                     |                                                                            |
| 師資來源：   | 外聘(其他)                                                                                        |                                                                            |
| 課綱核心素養： | A自主行動： A3. 規劃執行與創新應變,                                                                         |                                                                            |
|         | B溝通互動： B2. 科技資訊與媒體素養,                                                                         |                                                                            |
|         | C社會參與： C2. 人際關係與團隊合作,                                                                         |                                                                            |
| 學生圖像：   | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                  |                                                                            |
| 學習目標：   | 1. 了解新聞媒體之運作與各類新聞製作過程<br>2. 培養製作報導與剪輯影片之能力<br>3. 建立對各大類議題的敏感度（財經、社會、國際關係等）<br>4. 產出一部具主題性的短影音 |                                                                            |
| 教學大綱：   | 週次/序                                                                                          | 單元/主題                                                                      |
|         | 一                                                                                             | 臺灣傳播學的概述                                                                   |
|         | 二                                                                                             | 新聞台運作概況、新聞主題發想                                                             |
|         | 三                                                                                             | 財經類新聞介紹                                                                    |
|         | 四                                                                                             | 社會類新聞介紹                                                                    |
|         | 五                                                                                             | 國際關係類新聞介紹                                                                  |
|         | 六                                                                                             | 氣象類新聞介紹                                                                    |
|         | 七                                                                                             | 新聞台參訪                                                                      |
|         | 八                                                                                             | 預備期中發表                                                                     |
|         | 九                                                                                             | 期中發表：報導新聞                                                                  |
|         | 十                                                                                             | 說故事的法則                                                                     |
|         | 十一                                                                                            | 從身邊的小事觀察起                                                                  |
|         | 十二                                                                                            | 期中發表：以簡報分享我居住的地方（或學校）                                                      |
|         | 十三                                                                                            | 攝影室操作與學習                                                                   |
|         | 十四                                                                                            | 主播播報訓練                                                                     |
|         |                                                                                               | 內容綱要                                                                       |
|         |                                                                                               | 臺灣目前傳播媒體的主要種類介紹：新聞媒體、網路媒體、Youtube、podcast、影視拍攝等                            |
|         |                                                                                               | 邀請新聞工作者（如主播、記者、編譯等等）分享目前新聞台的工作內容與介紹                                        |
|         |                                                                                               | 邀請財經類新聞工作者指導，包含財經類素材的採集方法、經驗分享、相關技能培養、電視新聞寫稿練習（財經類）                        |
|         |                                                                                               | 邀請社會類新聞工作者指導，包含社會類素材的採集、製作過程的注意事項、公平正義的探討、中立的報導技巧與電視新聞寫稿練習（社會類）            |
|         |                                                                                               | 邀請國際關係類新聞工作者指導，包含國際類新聞撰寫、語言能力的培養、對國際關係的敏感度、大事件發生時應變、實際經驗分享與電視新聞寫稿練習（國際關係類） |
|         |                                                                                               | 邀請氣象類新聞工作者指導，包含氣象預報、新聞雲圖的介紹、具備相關技能、颱風、地震或緊急情況之應變、實際經驗分享                    |
|         |                                                                                               | 新聞台實地參訪，了解新聞工作者的內容與環境，透過實際踏查，深入瞭解此工作的樣貌                                    |
|         |                                                                                               | 教師提供發表架構之模板，供學生使用。學生以小組進行，選擇某一類新聞主題，就某事件進行討論、產出                            |
|         |                                                                                               | 學生以小組模式發表，就某一類新聞為主，撰寫一篇相關事件的文章，並模擬報導                                       |
|         |                                                                                               | 邀請新聞工作者，介紹能讓報導洋溢魅力的元素、如何瞬間引人注目？或是文章的情節安排如何讓讀者能一路讀到底等報導寫作的技巧與介紹             |
|         |                                                                                               | 教師帶領學生進行討論：以自己居住地或學校周遭，了解可能有哪些議題或問題，並進一步提出改善與應變方法                          |
|         |                                                                                               | 透過上堂課程學習單的引導，以簡報的方式輸出，與同學分享關於學校與家鄉的樣貌、事物                                   |
|         |                                                                                               | 至學校攝影棚，學習棚內的操作與相關知識                                                        |
|         |                                                                                               | 邀請新聞主播指導學生在擔任主播時需要注意的相關事項、以及主播播報之訓練                                        |

|       |                                                                    |         |                                                     |
|-------|--------------------------------------------------------------------|---------|-----------------------------------------------------|
|       | 十五                                                                 | 剪輯指導與練習 | 邀請新聞工作者，透過學生現有的筆電與平板，介紹其中能夠使用的剪輯軟體，如：i movie、威力導演等等 |
|       | 十六                                                                 | 期末成果準備  | 撰寫期末作業：以小組方式，學生訂定一主題，用不同方式呈現（如實地採訪、戲劇、訪談等），並與教師討論   |
|       | 十七                                                                 | 期末成果準備  | 拍攝、剪輯相關素材與編輯影片                                      |
|       | 十八                                                                 | 期末發表    | 以組為單位進行各組影片之發表                                      |
|       | 十九                                                                 |         |                                                     |
|       | 二十                                                                 |         |                                                     |
|       | 二十一                                                                |         |                                                     |
|       | 二十二                                                                |         |                                                     |
| 學習評量： | 1. 課堂作業20%<br>2. 期初發表20%<br>3. 期中發表20%<br>4. 期末發表30%<br>5. 上課態度10% |         |                                                     |
| 備註：   |                                                                    |         |                                                     |

|             |                                                                                                                                        |                                                                                                                                                                                                                                                                                              |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 德語2                                                                                                                              |                                                                                                                                                                                                                                                                                              |
|             | 英文名稱： German II                                                                                                                        |                                                                                                                                                                                                                                                                                              |
| 授課年段：       | 一下、三下                                                                                                                                  | 學分總數： 2                                                                                                                                                                                                                                                                                      |
| 課程屬性：       | 第二外國語文                                                                                                                                 |                                                                                                                                                                                                                                                                                              |
| 議題融入：       | 多元文化、國際教育                                                                                                                              |                                                                                                                                                                                                                                                                                              |
| 師資來源：       | 外聘(其他)                                                                                                                                 |                                                                                                                                                                                                                                                                                              |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進,                                                                                                                   |                                                                                                                                                                                                                                                                                              |
|             | B溝通互動： B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                     |                                                                                                                                                                                                                                                                                              |
|             | C社會參與： C3.多元文化與國際理解,                                                                                                                   |                                                                                                                                                                                                                                                                                              |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                                                                                                                                                                                                                                              |
| 學習目標：       | 1. 德文發音規則。<br>2. 基礎句型及語法概念介紹。<br>3. 日常生活表達，包含問候、自我介紹、數字、日常習慣等。<br>4. 德語國家文化認識。<br>5. 加強日常生活單字的練習，以擴展學生習得的單字量。                          |                                                                                                                                                                                                                                                                                              |
| 教學大綱：       | 週次/<br>序                                                                                                                               | 單元/主題<br>內容綱要                                                                                                                                                                                                                                                                                |
|             | 一                                                                                                                                      | Revision lesson A1.1 coursebook lessons 1-7 (mini test) Starting A1.1 coursebook lesson 8 - buying drinks, expressing preferences, numbers 20-100<br>Activities: practicing self-introduction                                                                                                |
|             | 二                                                                                                                                      | A1.1 coursebook lesson 8 buying drinks, expressing preferences, numbers 20-100 A1.1 coursebook lesson 8 buying drinks, expressing preferences, number<br>Activities: conversation in class, bringing photos to class for introducing oneself and/or family & friends                         |
|             | 三                                                                                                                                      | A1.1 coursebook lesson 9 - talking about food and daily routine<br>Activities: pantomime and role play as a way to discuss and practice German words for hobbies                                                                                                                             |
|             | 四                                                                                                                                      | A1.1 coursebook lesson 9 - talking about food and daily routine<br>Activities: interviewing and introducing classmates                                                                                                                                                                       |
|             | 五                                                                                                                                      | First exam (lessons 8-9) Starting A1.2 coursebook lesson 10 - talking about hobbies and directions (advanced grammar), making requests/giving advice<br>Activity: creating a poster introducing German-speaking countries as well as Taiwan + take-home exam (video clip: self-introduction) |
|             | 六                                                                                                                                      | A1.2 coursebook lesson 10 - talking about hobbies and directions (advanced grammar), making requests/giving advice<br>Activity: creating a poster introducing German-speaking countries as well as Taiwan + take-home exam (video clip: self-introduction)                                   |
|             | 七                                                                                                                                      | Week 7+8: A1.2 coursebook lesson 11 - talking about body parts and pain, advanced requests and sentence structure, introduction to past tense Week 7+8<br>Activities: comparing school subjects as well as school systems in Germany and Taiwan by creating posters                          |
|             | 八                                                                                                                                      | Week 7+8: A1.2 coursebook lesson 11 -<br>talking about body parts and pain, advanced requests and sentence structure, introduction                                                                                                                                                           |

|       |                                                                                      |                                                                                                                                     |
|-------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
|       |                                                                                      | ction to past tense                                                                                                                 |
| 九     | A1.2 coursebook lesson 12 - talking about transportation and asking for directions   | Activities: role play - going to the stationary shop and buying school supplies                                                     |
| 十     | A1.2 coursebook lesson 12 - talking about transportation and asking for directions   | talking about transportation and asking for directions                                                                              |
| 十一    | second exam (lesson 10-12), starting A1.2 lesson 13 talking about traveling and time | Activities: Take-home group assignment: creating a video with classmates going to the stationary shop or presenting a day at school |
| 十二    | A1.2 lesson 13 talking about traveling and time                                      | Discussing exam results<br>A1.1 coursebook lesson 6 - talking about time, duties and abilities                                      |
| 十三    | A1.2 coursebook lesson 14 - talking about preferences, presents, and events          | Activities: conversation practice - agreeing on a time for meeting up with classmates                                               |
| 十四    | A1.2 coursebook lesson 14 - talking about preferences, presents, and events          | Activities: creating a family tree as well as a poster about wishes on future profession                                            |
| 十五    | Revisions lesson 8-14                                                                | Activities: writing dialogues in groups                                                                                             |
| 十六    | Final exam (lessons 8-14)                                                            | (filming group dialogues)                                                                                                           |
| 十七    | wrap-up                                                                              | Review vocabulary and grammar                                                                                                       |
| 十八    | Reflection                                                                           | reflection sharing                                                                                                                  |
| 十九    |                                                                                      |                                                                                                                                     |
| 二十    |                                                                                      |                                                                                                                                     |
| 二十一   |                                                                                      |                                                                                                                                     |
| 二十二   |                                                                                      |                                                                                                                                     |
| 學習評量： | 課堂參與與實作50%、隨堂評量20%、期末評量30%                                                           |                                                                                                                                     |
| 備註：   |                                                                                      |                                                                                                                                     |

|         |                                                                                                                                 |                                           |
|---------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| 課程名稱：   | 中文名稱：《史記》專題探究(上)                                                                                                                |                                           |
|         | 英文名稱：Analysis of Ancient Chinese Text "Records of the Grand Historian"                                                          |                                           |
| 授課年段：   | 二上                                                                                                                              | 學分總數：2                                    |
| 課程屬性：   | 專題探究                                                                                                                            |                                           |
| 議題融入：   | 品德、生命、生涯規劃、閱讀素養                                                                                                                 |                                           |
| 師資來源：   | 外聘(其他)                                                                                                                          |                                           |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，                                                                                                |                                           |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                |                                           |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，                                                                                                |                                           |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                                           |
| 學習目標：   | 藉由前人經驗智慧，建立自我人格、智慧、才識                                                                                                           |                                           |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題                                     |
|         | 一                                                                                                                               | 司馬遷                                       |
|         | 二                                                                                                                               | 《史記》                                      |
|         | 三                                                                                                                               | 王者風範1                                     |
|         | 四                                                                                                                               | 王者風範2                                     |
|         | 五                                                                                                                               | 王者風範3                                     |
|         | 六                                                                                                                               | 王者風範4                                     |
|         | 七                                                                                                                               | 王者風範5                                     |
|         | 八                                                                                                                               | 聖人氣象1                                     |
|         | 九                                                                                                                               | 聖人氣象2                                     |
|         | 十                                                                                                                               | 良相輔國1                                     |
|         | 十一                                                                                                                              | 良相輔國2                                     |
|         | 十二                                                                                                                              | 良相輔國3                                     |
|         | 十三                                                                                                                              | 良相輔國4                                     |
|         | 十四                                                                                                                              | 良相輔國5                                     |
|         | 十五                                                                                                                              | 縱橫捭闔1                                     |
|         | 十六                                                                                                                              | 縱橫捭闔2                                     |
|         | 十七                                                                                                                              | 縱橫捭闔3                                     |
|         | 十八                                                                                                                              | 縱橫捭闔4                                     |
|         | 十九                                                                                                                              |                                           |
|         | 二十                                                                                                                              |                                           |
|         | 二十一                                                                                                                             |                                           |
|         | 二十二                                                                                                                             |                                           |
|         |                                                                                                                                 | 內容綱要                                      |
|         |                                                                                                                                 | 司馬遷生平與性格                                  |
|         |                                                                                                                                 | 《史記》相關知識與司馬遷遭遇對《史記》的影響                    |
|         |                                                                                                                                 | 〈項羽本紀〉、〈高祖本紀〉導讀                           |
|         |                                                                                                                                 | 〈項羽本紀〉、〈高祖本紀〉導讀                           |
|         |                                                                                                                                 | 〈項羽本紀〉、〈高祖本紀〉導讀                           |
|         |                                                                                                                                 | 〈項羽本紀〉、〈高祖本紀〉導讀                           |
|         |                                                                                                                                 | 〈項羽本紀〉、〈高祖本紀〉導讀                           |
|         |                                                                                                                                 | 〈孔子世家〉導讀                                  |
|         |                                                                                                                                 | 〈孔子世家〉導讀                                  |
|         |                                                                                                                                 | 〈蕭相國世家〉、〈留侯世家〉、〈袁盎黈錯列傳〉、〈孟嘗君列傳〉、〈魏公子列傳〉導讀 |
|         |                                                                                                                                 | 〈蕭相國世家〉、〈留侯世家〉、〈袁盎黈錯列傳〉、〈孟嘗君列傳〉、〈魏公子列傳〉導讀 |
|         |                                                                                                                                 | 〈蕭相國世家〉、〈留侯世家〉、〈袁盎黈錯列傳〉、〈孟嘗君列傳〉、〈魏公子列傳〉導讀 |
|         |                                                                                                                                 | 〈蕭相國世家〉、〈留侯世家〉、〈袁盎黈錯列傳〉、〈孟嘗君列傳〉、〈魏公子列傳〉導讀 |
|         |                                                                                                                                 | 〈蘇秦列傳〉、〈廉頗藺相如列傳〉、〈魯仲連鄒陽列傳〉導讀              |
|         |                                                                                                                                 | 〈蘇秦列傳〉、〈廉頗藺相如列傳〉、〈魯仲連鄒陽列傳〉導讀              |
|         |                                                                                                                                 | 〈蘇秦列傳〉、〈廉頗藺相如列傳〉、〈魯仲連鄒陽列傳〉導讀              |
|         |                                                                                                                                 | 〈蘇秦列傳〉、〈廉頗藺相如列傳〉、〈魯仲連鄒陽列傳〉導讀              |

|       |                                               |
|-------|-----------------------------------------------|
| 學習評量： | 文本閱讀與口說20%<br>上課提問與回答20%<br>學習態度20%<br>學習單40% |
| 備註：   |                                               |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：AP 平面視覺設計(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                   |
|         | 英文名稱：AP 2-D Art and Design I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                   |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 學分總數：4                                                                                                            |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                   |
| 議題融入：   | 生涯規劃、多元文化                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                   |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                   |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                   |
|         | B溝通互動：B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                   |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                   |
| 學生圖像：   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   |
| 學習目標：   | AP Studio Art 2-D is designed for students who are seriously interested in the practical experience of art. The AP program is based on the premise that college-level material can be taught successfully to secondary school students. This is a chance for the visually gifted to excel and receive recognition on a national scale. It allows students to compare their work with that of other high school students throughout the nation and helps them prepare an excellent portfolio for study at the college level. |                                                                                                                   |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 單元/主題                                                                                                             |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 0                                                                                                            |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1                                                                                                            |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1                                                                                                            |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1                                                                                                            |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1                                                                                                            |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1                                                                                                            |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 2                                                                                                            |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 2                                                                                                            |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 2                                                                                                            |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3                                                                                                            |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3                                                                                                            |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3                                                                                                            |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Review                                                                                                            |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4                                                                                                            |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4                                                                                                            |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5                                                                                                            |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5                                                                                                            |
|         | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Review                                                                                                            |
|         | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                   |
|         | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                   |
|         | 二十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 內容綱要                                                                                                              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Introduction                                                                                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Specific Breakdown of preparing students for commitment of AP class                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Back to basics perceiving/ drawing review<br>Concentration proposal discussion                                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Contours, forms in space, value                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | STYLEContinue Drawing, discuss using photographs, ethics/plagiarism, stealing, creating a unique "personal voice" |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Perspective and Space                                                                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Elements and Principles - Breadth Focus                                                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Elements and Principles - Breadth Focus                                                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Elements and Principles - Breadth Focus                                                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Elements and PrinciplesConcentration Focus                                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Elements and PrinciplesConcentration Focus                                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Elements and PrinciplesConcentration Focus                                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Questions and Discussion                                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Develop concentration                                                                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Develop concentration                                                                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Breakout exercises from beginning of the course and remind students to use these in their daily practice          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Breakout exercises from beginning of the course and remind students to use these in their daily practice          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Questions and Discussion                                                                                          |



|       |                          |  |  |
|-------|--------------------------|--|--|
|       | 二十<br>二                  |  |  |
| 學習評量： | 40% 課堂參與討論、60% portfolio |  |  |
| 備註：   | 全英語教學                    |  |  |

【備查版】

【備查版】

|                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| 課程名稱：                                                                                                                                                                                                                                                | 中文名稱：AP 計算機科學A(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               |
|                                                                                                                                                                                                                                                      | 英文名稱：AP Computer Science A I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |
| 授課年段：                                                                                                                                                                                                                                                | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 學分總數：4                                        |
| 課程屬性：                                                                                                                                                                                                                                                | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                               |
| 議題融入：                                                                                                                                                                                                                                                | 資訊、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               |
| 師資來源：                                                                                                                                                                                                                                                | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                               |
| 課綱核心素<br>養：                                                                                                                                                                                                                                          | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |
|                                                                                                                                                                                                                                                      | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |
|                                                                                                                                                                                                                                                      | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |
| 學生圖像：                                                                                                                                                                                                                                                | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。、                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| 學習目標：                                                                                                                                                                                                                                                | AP Computer Science A is a course designed to awaken and support students' problem-solving skills. The course will introduce the Java programming language while emphasizing universal language techniques like syntax, semantics and readability. While Java is the official AP CS A language, the concepts taught are applicable to any industry standard language such as Python, C++, C#, and JavaScript. Students will gain mastery in programming concepts by using a subset of Java features that are covered when needed throughout the course content. This allows the student to understand and master important concepts that will apply to programming problems in many additional languages. |                                               |
| 教學大綱：                                                                                                                                                                                                                                                | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 單元/主題                                         |
|                                                                                                                                                                                                                                                      | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Primitive Types                       |
|                                                                                                                                                                                                                                                      | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Primitive Types                       |
|                                                                                                                                                                                                                                                      | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Primitive Types                       |
|                                                                                                                                                                                                                                                      | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2: Using Objects                         |
|                                                                                                                                                                                                                                                      | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2: Using Objects                         |
|                                                                                                                                                                                                                                                      | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2: Using Objects                         |
|                                                                                                                                                                                                                                                      | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3: Boolean Expressions and if Statements |
| 內容綱要                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| The fundamentals of Java, a programming language, as well as other foundational concepts for coding                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| 1.The fundamentals of Java, a programming language, as well as other foundational concepts for coding<br>2.Primitive data types including int, double, and Boolean                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| Evaluating arithmetic expressions in program code                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| Exploring reference data as a way to represent real-world objects in a digital world and discover methods to perform more complex operations                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| 1.Objects and classes as ways to describe instances, attributes, and behaviors<br>2.Creating objects by calling constructors with and without parameters<br>3.Utilizing class libraries, including Integer and Double                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| 1.Defining an object's behavior using methods, including static and Math class<br>2.Calling non-static void methods with and without parameters<br>3.Using String objects and methods<br>4.Using application program interfaces (APIs) and libraries |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| Delving into the building blocks of algorithms and focus on using conditional statements to solve problems and control results                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |

|                                  |                                               |                                                                                                                                                                                                    |
|----------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 八                                | Unit 3: Boolean Expressions and if Statements | 1. Finding Boolean values with expressions involving relational operators<br>2. Using conditional statements to execute different statements based on input values                                 |
| 九                                | Unit 3: Boolean Expressions and if Statements | 1. Building on conditional statements to create multiple possible outcomes<br>2. Creating the same value using equivalent Boolean expressions<br>Referencing objects with aliases                  |
| 十                                | Review Unit 1 ~Unit 3                         | Questions and Discussions                                                                                                                                                                          |
| 十一                               | Unit 4: Iteration                             | Learning about iteration, another building block of algorithms that are for repetition                                                                                                             |
| 十二                               | Unit 4: Iteration                             | 1. Creating a loop to run an expression repeatedly until certain conditions are met<br>2. Standard arithmetic-based and String algorithms                                                          |
| 十三                               | Unit 4: Iteration                             | 1. Representing iterative processes in code using for and while loops<br>Nesting loop and iteration statements                                                                                     |
| 十四                               | Unit 5: Writing Classes                       | 1. Exploring how real-world interactions can be expressed digitally by organizing behaviors and attributes into classes<br>2. Examining the legal and ethical implications of computer programming |
| 十五                               | Unit 5: Writing Classes                       | 1. The makeup of a class, including whether attributes are public or private<br>2. Setting an object's attributes using constructors<br>3. Using comments to describe the functionality of code    |
| 十六                               | Unit 5: Writing Classes                       | 1. Defining behaviors of an object using non-void, void, and static methods<br>2. Where variables can be used in program code subproblems                                                          |
| 十七                               | Unit 5: Writing Classes                       | 1. Intellectual property and ethical concerns in programming<br>2. Breaking problems into smaller parts by creating methods to solve individual                                                    |
| 十八                               | Review Unit 4 ~Unit 5                         | Questions and Discussions                                                                                                                                                                          |
| 十九                               |                                               |                                                                                                                                                                                                    |
| 二十                               |                                               |                                                                                                                                                                                                    |
| 二十一                              |                                               |                                                                                                                                                                                                    |
| 二十二                              |                                               |                                                                                                                                                                                                    |
| 學習評量： 40% 課堂參與、30% 回家作業、30% 專題報告 |                                               |                                                                                                                                                                                                    |
| 備註： 全英語授課                        |                                               |                                                                                                                                                                                                    |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                               |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：AP 微積分AB(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                               |
|             | 英文名稱：AP Calculus AB I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                               |
| 授課年段：       | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 學分總數：4                                                                        |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                               |
| 議題融入：       | 生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                               |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                               |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                               |
|             | B溝通互動：B1.符號運用與溝通表達，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                               |
|             | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                               |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。、2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。、3.個性完善：愛心熱誠、誠信正直、自律自省。、4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。、                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                               |
| 學習目標：       | <ul style="list-style-type: none"> <li>• Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal.</li> <li>• Explain the meaning of the derivative in terms of a rate of change and local linear approximation as well as use derivatives to solve problems.</li> <li>• Explain the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change as well as use integrals to solve problems.</li> <li>• Describe the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.</li> <li>• Communicate mathematics and explain solutions to problems verbally and in writing.</li> <li>• Model a written description of a physical situation with a function, a differential equation, or an integral.</li> <li>• Use technology to solve problems, experiment, interpret results, and support conclusions.</li> <li>• Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.</li> </ul> |                                                                               |
| 教學大綱：       | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題                                                                         |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Limits and Continuity                                                  |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Limits and Continuity                                                  |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Limits and Continuity                                                  |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Limits and Continuity                                                  |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Differentiation - Definition and Fundamental Properties                |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Differentiation - Definition and Fundamental Properties                |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Differentiation - Definition and Fundamental Properties                |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Differentiation - Definition and Fundamental Properties                |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Review Unit1-Unit 2                                                           |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Differentiation - Composite, Implicit, and Inverse Functions           |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 內容綱要                                                                          |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Introduction to AP Calculus AB                                                |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Using Properties of Limits                                                    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Continuity and Limits of Trigonometric, Exponential and Logarithmic Functions |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Infinite Limits, Limits at Infinity, and Asymptotes                           |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Rates of Change and the Derivative                                            |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | The Derivative of a Polynomial Function and the Natural Exponential Function  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Product Rule, Quotient Rule, and High-Order Derivatives                       |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Derivatives of Trigonometric Functions                                        |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Questions and Discussions                                                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | The Chain Rule and Implicit Differentiation                                   |

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|-------|----------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|       | 十一                         | Unit 3 Differentiation - Composite, Implicit, and Inverse Functions | Derivatives of the Inverse Trigonometric Functions and Logarithmic Functions         |
|       | 十二                         | Unit 4 Contextual Applications of Differentiation                   | Interpreting a Derivative; Differentials; Linear Approximations; and Newton's Method |
|       | 十三                         | Unit 4 Contextual Applications of Differentiation                   | Related Rates; Indeterminate Forms and L' Hopital's Rule                             |
|       | 十四                         | Unit 5 Analytical Applications of Differentiation                   | Maximum and Minimum Values; Critical Numbers; Mean Value Theorem.                    |
|       | 十五                         | Unit 5 Analytical Applications of Differentiation                   | Local Extrema and Concavity; Using Calculus to Graph Functions                       |
|       | 十六                         | Unit 5 Analytical Applications of Differentiation                   | Optimization                                                                         |
|       | 十七                         | Unit 5 Analytical Applications of Differentiation                   | Antiderivatives and Differential Equations                                           |
|       | 十八                         | Review Unit 3-Unit 5                                                | Questions and Discussions                                                            |
|       | 十九                         |                                                                     |                                                                                      |
|       | 二十                         |                                                                     |                                                                                      |
|       | 二十一                        |                                                                     |                                                                                      |
|       | 二十二                        |                                                                     |                                                                                      |
| 學習評量： | 40% 課堂參與、30% 回家作業、30% 專題報告 |                                                                     |                                                                                      |
| 備註：   | 全英文授課                      |                                                                     |                                                                                      |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                               |
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| 課程名稱：   | 中文名稱：AP 微積分BC(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                               |
|         | 英文名稱：AP Calculus BC I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                               |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 學分總數：4                                                                                                        |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                               |
| 議題融入：   | 生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                               |
| 師資來源：   | 外聘(大學)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                               |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                               |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                               |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                               |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                               |
| 學習目標：   | <ul style="list-style-type: none"> <li>• Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal.</li> <li>• Explain the meaning of the derivative in terms of a rate of change and local linear approximation as well as use derivatives to solve problems.</li> <li>• Explain the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change as well as use integrals to solve problems.</li> <li>• Describe the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.</li> <li>• Communicate mathematics and explain solutions to problems verbally and in writing.</li> <li>• Model a written description of a physical situation with a function, a differential equation, or an integral.</li> <li>• Use technology to solve problems, experiment, interpret results, and support conclusions.</li> <li>• Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.</li> </ul> |                                                                                                               |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題                                                                                                         |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Limits and Continuity                                                                                  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Limits and Continuity                                                                                  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Limits and Continuity                                                                                  |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Differentiation - Definition and Fundamental Properties                                                |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Differentiation - Definition and Fundamental Properties                                                |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Differentiation - Composite, Implicit, and Inverse Functions                                           |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Differentiation - Composite, Implicit, and Inverse Functions                                           |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 4 Contextual Applications of Differentiation                                                             |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 4 Contextual Applications of Differentiation                                                             |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Review Unit 1-Unit 4                                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 內容綱要                                                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Introduction to AP <sup>®</sup> Calculus BC                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Continuity and Limits of Trigonometric, Exponential, and Logarithmic Functions                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Infinite Limits; Limits at Infinity; and Asymptotes                                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Rates of Change; the Derivative; and Derivatives of Polynomial Functions and the Natural Exponential Function |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Product Rule and Quotient Rule; Higher-Order Derivatives; and Derivatives of Trigonometric Functions          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | The Chain Rule and Implicit Differentiation                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Derivatives of the Inverse Trigonometric Functions and Logarithmic Functions                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Interpreting a Derivative; Differentials; Linear Approximations; and Newton's Method                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Related Rates; Indeterminate Forms and L'Hopital's Rule                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Questions and Discussions                                                                                     |

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|---------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 十一                              | Unit 5 Analytical Applications of Differentiation | Maximum and Minimum Values; Critical Numbers; Mean Value Theorem                                                                                      |
| 十二                              | Unit 5 Analytical Applications of Differentiation | Local Extrema and Concavity; Using Calculus to Graph Functions                                                                                        |
| 十三                              | Unit 5 Analytical Applications of Differentiation | Optimization; Antiderivatives; Differential Equations                                                                                                 |
| 十四                              | Unit 6 Integration and Accumulation               | Area and the Definite Integral                                                                                                                        |
| 十五                              | Unit 6 Integration and Accumulation               | The Fundamental Theorem of Calculus; Properties of the Definite Integral                                                                              |
| 十六                              | Unit 6 Integration and Accumulation               | Indefinite Integral; Substitution Method; Integration by Parts                                                                                        |
| 十七                              | Unit 6 Integration and Accumulation               | Integrals Containing Trigonometric Functions;<br>Integration Using Long Division and Partial Fractions<br>Approximating Integrals; Improper Integrals |
| 十八                              | Review Unit 5-Unit 6                              | Questions and Discussions                                                                                                                             |
| 十九                              |                                                   |                                                                                                                                                       |
| 二十                              |                                                   |                                                                                                                                                       |
| 二十一                             |                                                   |                                                                                                                                                       |
| 二十二                             |                                                   |                                                                                                                                                       |
| 學習評量：40% 課堂參與、30% 回家作業、30% 專題報告 |                                                   |                                                                                                                                                       |
| 備註：全英文授課                        |                                                   |                                                                                                                                                       |



|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 課程名稱：   | 中文名稱：AP 環境科學(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |
|         | 英文名稱：AP Environmental Science I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 學分總數：4                                  |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                         |
| 議題融入：   | 環境、海洋、生命、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                         |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                         |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                         |
|         | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                         |
|         | C社會參與：C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                         |
| 學習目標：   | This course provides you with the fundamental knowledge of and skills relating to environmental science that will help you succeed in life after secondary school. You will explore a range of topics, including the role of science in addressing contemporary environmental challenges; the impact of the environment on human health; sustainable agriculture and forestry; the reduction and management of waste; and the conservation of energy. You will increase your scientific and environmental literacy and examine the interrelationships between science, the environment, and society in a variety of areas. |                                         |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                   |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Human health and the environment |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Human health and the environment |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Human health and the environment |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Human health and the environment |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Human health and the environment |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Human health and the environment |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Human health and the environment |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Review Unit 1                           |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 Conservation of energy           |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 Conservation of energy           |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2 Conservation of energy           |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2 Conservation of energy           |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2 Conservation of energy           |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2 Conservation of energy           |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2 Conservation of energy           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |

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|-------|------------------------------|-------------------------------|---------------------------------------------------------------------|
|       | 十六                           | Unit 2 Conservation of energy | Lesson 10: Conservation and improving energy efficiency on the road |
|       | 十七                           | Review Unit 2                 | Questions and Discussions                                           |
|       | 十八                           | Wrap-Up                       | Reflections and Further Thoughts                                    |
|       | 十九                           |                               |                                                                     |
|       | 二十                           |                               |                                                                     |
|       | 二十一                          |                               |                                                                     |
|       | 二十二                          |                               |                                                                     |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                               |                                                                     |
| 備註：   |                              |                               |                                                                     |

|         |                                                                                                                                                                                                                          |                                                                                |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：AP化學(上)                                                                                                                                                                                                             |                                                                                |
|         | 英文名稱：AP Chemistry                                                                                                                                                                                                        |                                                                                |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                    | 學分總數：8                                                                         |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                   |                                                                                |
| 議題融入：   | 科技、能源                                                                                                                                                                                                                    |                                                                                |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                   |                                                                                |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                      |                                                                                |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                         |                                                                                |
|         | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                      |                                                                                |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                          |                                                                                |
| 學習目標：   | Learn about the fundamental concepts of chemistry including structure and states of matter, intermolecular forces, and reactions. You'll do hands-on lab investigations and use chemical calculations to solve problems. |                                                                                |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                     | 單元/主題                                                                          |
|         | 一                                                                                                                                                                                                                        | Unit 1: Atomic Structure and Properties                                        |
|         | 二                                                                                                                                                                                                                        | Unit 1: Atomic Structure and Properties                                        |
|         | 三                                                                                                                                                                                                                        | Unit 1: Atomic Structure and Properties                                        |
|         | 四                                                                                                                                                                                                                        | Unit 1: Atomic Structure and Properties                                        |
|         | 五                                                                                                                                                                                                                        | Unit 2: Molecular and Ionic Compound Structure and Properties                  |
|         | 六                                                                                                                                                                                                                        | Unit 2: Molecular and Ionic Compound Structure and Properties                  |
|         | 七                                                                                                                                                                                                                        | Unit 2: Molecular and Ionic Compound Structure and Properties                  |
|         | 八                                                                                                                                                                                                                        | Unit 2: Molecular and Ionic Compound Structure and Properties                  |
|         | 九                                                                                                                                                                                                                        | Unit 3: Intermolecular Forces and Properties                                   |
|         | 十                                                                                                                                                                                                                        | Unit 3: Intermolecular Forces and Properties                                   |
|         | 十一                                                                                                                                                                                                                       | Unit 3: Intermolecular Forces and Properties                                   |
|         | 十二                                                                                                                                                                                                                       | Unit 4: Chemical Reactions                                                     |
|         | 十三                                                                                                                                                                                                                       | Unit 4: Chemical Reactions                                                     |
|         | 十四                                                                                                                                                                                                                       | Unit 4: Chemical Reactions                                                     |
|         | 十五                                                                                                                                                                                                                       | Unit 5: Kinetics                                                               |
|         | 十六                                                                                                                                                                                                                       | Unit 5: Kinetics                                                               |
|         |                                                                                                                                                                                                                          | 內容綱要                                                                           |
|         |                                                                                                                                                                                                                          | Moles and molar mass<br>Mass spectroscopy of elements                          |
|         |                                                                                                                                                                                                                          | Elemental composition of pure substances<br>Composition of mixtures            |
|         |                                                                                                                                                                                                                          | Atomic structure and electron configuration<br>Photoelectron spectroscopy      |
|         |                                                                                                                                                                                                                          | Periodic trends<br>Valence electrons and ionic compounds                       |
|         |                                                                                                                                                                                                                          | Types of chemical bonds<br>Intramolecular force and potential energy           |
|         |                                                                                                                                                                                                                          | Structure of ionic solids<br>Structure of metals and alloys                    |
|         |                                                                                                                                                                                                                          | Lewis diagrams<br>Resonance and formal charge                                  |
|         |                                                                                                                                                                                                                          | VSEPR and bond hybridization                                                   |
|         |                                                                                                                                                                                                                          | Intermolecular forces<br>Solids, liquids, and gases                            |
|         |                                                                                                                                                                                                                          | Kinetic molecular theory                                                       |
|         |                                                                                                                                                                                                                          | Solutions and mixtures<br>Photoelectric effect                                 |
|         |                                                                                                                                                                                                                          | Introduction for reactions<br>Net ionic equations                              |
|         |                                                                                                                                                                                                                          | Representations of reactions<br>Physical and chemical changes                  |
|         |                                                                                                                                                                                                                          | Stoichiometry<br>Types of chemical reactions                                   |
|         |                                                                                                                                                                                                                          | Reaction rate<br>Introduction to rate law                                      |
|         |                                                                                                                                                                                                                          | Elementary reactions<br>Collision model<br>Introduction to reaction mechanisms |

|       |                              |                  |                                                |
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|       | 十七                           | Unit 5: Kinetics | Multistep reaction energy profile<br>Catalysis |
|       | 十八                           | Wrap up          | Questions and Discussions                      |
|       | 十九                           |                  |                                                |
|       | 二十                           |                  |                                                |
|       | 二十一                          |                  |                                                |
|       | 二十二                          |                  |                                                |
|       |                              |                  |                                                |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                  |                                                |
| 備註：   | 全英語授課                        |                  |                                                |

【備查版】

【備查版】

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                       |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：AP心理學(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                       |
|         | 英文名稱：AP Psychology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                       |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 學分總數：4                                                                                                                                                                |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                       |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                       |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                       |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                       |
|         | B溝通互動：B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                       |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                       |
| 學生圖像：   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                       |
| 學習目標：   | <ul style="list-style-type: none"> <li>• Student will explain the need for ethical behavior throughout the scientific field of psychology</li> <li>• Student will demonstrate understanding of brain functions by relating research and case studies to perception and sensation, and discussing how parts of the brain send signals throughout the brain and to the body to activate behavior.</li> <li>• Student will show comprehension of multiple psychological disorders by evaluating case studies.</li> <li>• Student will demonstrate their knowledge of behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural perspectives of psychology through multiple projects</li> <li>• Students will demonstrate how individual differences influence beliefs, values, and social interactions.</li> </ul> |                                                                                                                                                                       |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 單元/主題                                                                                                                                                                 |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 1:History and Approaches                                                                                                                                         |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 1:History and Approaches                                                                                                                                         |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 2: Research Methods                                                                                                                                              |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 2: Research Methods                                                                                                                                              |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 2: Research Methods                                                                                                                                              |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 3: Biological Basis of Behavior                                                                                                                                  |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 3: Biological Basis of Behavior                                                                                                                                  |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 3: Biological Basis of Behavior                                                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 內容綱要                                                                                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Why is psychology considered a science?<br>What is the nature vs. nurture debate?                                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What are the social-cultural, and biological influences of behavioral and mental processes?<br>What are the subfields of psychology?                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What are the important attributes of a scientist?<br>Why is the scientific method important to psychology?                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What is the value of critical thinking?<br>What is the importance of correlation and causation?                                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Speculate whether psychological research can be generalized across cultures and genders.<br>Assess the ethical guidelines that safeguard human research participants. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What is important about neural communication?<br>How do the endocrine and the nervous systems interact?                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What are the functions of the various parts of the brain?<br>How important are genes to behavior and mental functioning?                                              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Explain why psychologists are concerned with human biology.                                                                                                           |

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|       |                                  | Illustrate how nerve cells communicate with other nerve cells.                                                                                        |
| 九     | Unit 4: Sensation and Perception | What are the implications of selective attention?<br>What is the importance of sensory adaptation?                                                    |
| 十     | Unit 4: Sensation and Perception | How do emotions influence sensation and perception?<br>Why are thresholds important to our ability to interact with the world around us?              |
| 十一    | Unit 4: Sensation and Perception | What is consciousness?<br>What are altered states of consciousness?                                                                                   |
| 十二    | Unit 5: States of Consciousness  | What is consciousness?<br>What are altered states of consciousness?                                                                                   |
| 十三    | Unit 5: States of Consciousness  | How do biological rhythms affect everyday life?<br>What is the importance of sleep?                                                                   |
| 十四    | Unit 5: States of Consciousness  | Why is it important to know about the various types of psychoactive drugs?<br>Describe the place of consciousness and psychology in history.          |
| 十五    | Unit 6: Learning                 | How do we learn?<br>What is operant conditioning?                                                                                                     |
| 十六    | Unit 6: Learning                 | How do classical conditioning and operant conditioning differ?<br>What important ideas has B.F. Skinner contributed to the understanding of learning? |
| 十七    | Unit 6: Learning                 | What are the biological and cognitive influences on conditioning?<br>Explain learning, and identify basic forms of learning.                          |
| 十八    | Wrap up                          | Questions and Discussions                                                                                                                             |
| 十九    |                                  |                                                                                                                                                       |
| 二十    |                                  |                                                                                                                                                       |
| 二十一   |                                  |                                                                                                                                                       |
| 二十二   |                                  |                                                                                                                                                       |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告     |                                                                                                                                                       |
| 備註：   | 全英語授課                            |                                                                                                                                                       |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                  |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：AP世界歷史(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                  |
|             | 英文名稱：AP World History: Modern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                  |
| 授課年段：       | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 學分總數：8                                                                                                                                                                                           |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                  |
| 議題融入：       | 性別平等、人權、多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                  |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                  |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                  |
|             | B溝通互動：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                  |
|             | C社會參與：C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                  |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                  |
| 學習目標：       | <p>Constructing and evaluating arguments, using evidence to make plausible arguments. Using documents and other primary data: developing the skills necessary to analyze point of view, context and bias, and to understand and interpret information. Developing the ability to assess issues of change and continuity over time. Enhancing the capacity to handle diversity of interpretations through analysis of context, bias, and frame of reference.</p> <p>Seeing global patterns over time and space, while acquiring the ability to connect local developments to global ones and to move through levels of generalizations from the global to the particular.</p> <p>Developing the ability to compare within and among societies, including comparing societies' reactions to global processes.</p> <p>Developing the ability to assess claims of universal standards, yet remaining aware of human commonalities and differences;</p> <p>Putting culturally diverse ideas and values in historical context, not by suspending judgment, but by developing</p> |                                                                                                                                                                                                  |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 單元/主題                                                                                                                                                                                            |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit1:The Global Tapestry (political)                                                                                                                                                            |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit1:The Global Tapestry (political)                                                                                                                                                            |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit1:The Global Tapestry (social)                                                                                                                                                               |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit1:The Global Tapestry (cultural)                                                                                                                                                             |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2:Networks of Exchange                                                                                                                                                                      |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 內容綱要                                                                                                                                                                                             |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | You'll explore how states formed, expanded, and declined in areas of the world during the period c. 1200 - c. 1450 and the related political, social, and cultural developments of that time.    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | You'll explore how states formed, expanded, and declined in areas of the world during the period c. 1200 - c. 1450 and the related political, social, and cultural developments of that time.    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | You'll explore how states formed, expanded, and declined in areas of the world during the period c. 1200 - c. 1450 and the related political, social, and cultural developments of that time.    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | You'll explore how states formed, expanded, and declined in areas of the world during the period c. 1200 - c. 1450 and the related political, social, and cultural developments of that time.    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | As you continue your study of the period c. 1200 - c. 1450, you'll learn how areas of the world were linked through trade and how these connections affected people, cultures, and environments. |



|     |                                        |                                                                                                                                                                                                       |
|-----|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 六   | Unit 2:Networks of Exchange            | As you continue your study of the period c. 1200 - c. 1450, you' ll learn how areas of the world were linked through trade and how these connections affected people, cul tures, and environments.    |
| 七   | Unit 2:Networks of Exchange            | As you continue your study of the period c. 1200 - c. 1450, you' ll learn how areas of the world were linked through trade and how these connections affected people, cul tures, and environments.    |
| 八   | Unit 2:Networks of Exchange            | As you continue your study of the period c. 1200 - c. 1450, you' ll learn how areas of the world were linked through trade and how these connections affected people, cul tures, and environments.    |
| 九   | Unit 2:Networks of Exchange            | As you continue your study of the period c. 1200 - c. 1450, you' ll learn how areas of the world were linked through trade and how these connections affected people, cul tures, and environments.    |
| 十   | Review                                 | Unit1 and Unit 2                                                                                                                                                                                      |
| 十一  | Unit 3: Land-Based Empires             | You' ll begin your study of the period c. 1450 - c. 1750 with an exploration of the empires that held power over large contiguou s areas of land.                                                     |
| 十二  | Unit 3: Land-Based Empires             | You' ll begin your study of the period c. 1450 - c. 1750 with an exploration of the empires that held power over large contiguou s areas of land.                                                     |
| 十三  | Unit 3: Land-Based Empires             | You' ll begin your study of the period c. 1450 - c. 1750 with an exploration of the empires that held power over large contiguou s areas of land.                                                     |
| 十四  | Unit 3: Land-Based Empires             | You' ll begin your study of the period c. 1450 - c. 1750 with an exploration of the empires that held power over large contiguou s areas of land.                                                     |
| 十五  | Unit 4: Transoceanic Interconne ctions | Continuing your study of the period c. 1450 - c. 1750, you' ll learn about advances i n ocean exploration, the development of ne w maritime empires, and the effects of new cross-cultural encounters |
| 十六  | Unit 4: Transoceanic Interconne ctions | Continuing your study of the period c. 1450 - c. 1750, you' ll learn about advances i n ocean exploration, the development of ne w maritime empires, and the effects of new cross-cultural encounters |
| 十七  | Unit 4: Transoceanic Interconne ctions | Continuing your study of the period c. 1450 - c. 1750, you' ll learn about advances i n ocean exploration, the development of ne w maritime empires, and the effects of new cross-cultural encounters |
| 十八  | Review                                 | Unit 3 and Unit 4                                                                                                                                                                                     |
| 十九  |                                        |                                                                                                                                                                                                       |
| 二十  |                                        |                                                                                                                                                                                                       |
| 二十一 |                                        |                                                                                                                                                                                                       |

|       |                              |  |  |
|-------|------------------------------|--|--|
|       | 二十<br>二                      |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英授課                         |  |  |

|             |                                                                                                                                                                                          |                                           |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| 課程名稱：       | 中文名稱：AP生物學(上)                                                                                                                                                                            |                                           |
|             | 英文名稱：AP Biology                                                                                                                                                                          |                                           |
| 授課年段：       | 二上、三上                                                                                                                                                                                    | 學分總數：8                                    |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                   |                                           |
| 議題融入：       | 科技                                                                                                                                                                                       |                                           |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                   |                                           |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                      |                                           |
|             | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                      |                                           |
|             | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                      |                                           |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                   |                                           |
| 學習目標：       | Study the core scientific principles, theories, and processes that govern living organisms and biological systems. You' ll do hands-on laboratory work to investigate natural phenomena. |                                           |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                 | 單元/主題                                     |
|             | 一                                                                                                                                                                                        | Unit 1: Chemistry of Life                 |
|             | 二                                                                                                                                                                                        | Unit 1: Chemistry of Life                 |
|             | 三                                                                                                                                                                                        | Unit 1: Chemistry of Life                 |
|             | 四                                                                                                                                                                                        | Unit 2: Cell Structure and Function       |
|             | 五                                                                                                                                                                                        | Unit 2: Cell Structure and Function       |
|             | 六                                                                                                                                                                                        | Unit 2: Cell Structure and Function       |
|             | 七                                                                                                                                                                                        | Unit 2: Cell Structure and Function       |
|             | 八                                                                                                                                                                                        | Review Unit 1-Unit 2                      |
|             | 九                                                                                                                                                                                        | Unit 3: Cellular Energetics               |
|             | 十                                                                                                                                                                                        | Unit 3: Cellular Energetics               |
|             | 十一                                                                                                                                                                                       | Unit 3: Cellular Energetics               |
|             | 十二                                                                                                                                                                                       | Unit 3: Cellular Energetics               |
|             | 十三                                                                                                                                                                                       | Unit 3: Cellular Energetics               |
|             | 十四                                                                                                                                                                                       | Unit 4: Cell Communication and Cell Cycle |
|             | 十五                                                                                                                                                                                       | Unit 4: Cell Communication and Cell Cycle |
|             | 十六                                                                                                                                                                                       | Unit 4: Cell Communication and Cell Cycle |
|             | 十七                                                                                                                                                                                       | Unit 4: Cell Communication and Cell Cycle |
|             | 十八                                                                                                                                                                                       | Wrap up                                   |
|             | 十九                                                                                                                                                                                       |                                           |
|             | 二十                                                                                                                                                                                       |                                           |

內容綱要

The structure and chemical properties of water

The makeup and properties of macromolecules

The structure of DNA and RNA

Cellular components and functions of those components

Cell interaction with its environment

The cell membrane structure and function

Cell regulatory mechanisms like osmosis and selective permeability  
Cellular compartmentalization

Discussion and questions

The structure and function of enzymes

The role of energy in living systems

The processes of photosynthesis

The processes of cellular respiration

Molecular diversity and cellular response to environmental changes

The mechanisms of cell communication

Signal transduction

Cellular responses and feedback mechanisms  
Signal transduction

The events in a cell cycle

Questions and Discussions

|       |                              |  |  |
|-------|------------------------------|--|--|
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英語授課                        |  |  |

【備查版】

【備查版】

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： AP美國歷史(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|             | 英文名稱： AP U.S. History                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 授課年段：       | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                           | 學分總數： 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 議題融入：       | 性別平等、人權、多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|             | B溝通互動： B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|             | C社會參與： C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 學習目標：       | Identify and explain historical developments and processes.<br>Analyze sourcing and situation of primary and secondary sources.<br>Analyze arguments in primary and secondary sources.<br>Analyze the context of historical events, developments, or processes. Using historical reasoning processes (comparison, causation, continuity and change), analyze patterns and connections between and among historical developments and processes.<br>Develop a historically defensible argument and support it with specific examples of relevant evidence. |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 單元/主題                                     | 內容綱要                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Introduction to AP US History             | Introduction to AP US History                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Native Societies and European Exploration | Explain the context for European encounters in the Americas from 1491 to 1607.<br>Explain how and why various native populations in the period before European contact interacted with the natural environment in North America.<br>Explain how and why various native populations in the period before European contact interacted with the natural environment in North America.<br>Explain causes of the Columbian Exchange and effect on Europe and the Americas during the period after 1492.<br>Explain how the growth of the Spanish Empire in North America shaped the development of social and economic structures over time.<br>Explain how and why European and Native American perspectives of others developed and changed in the period.<br>Explain the effects of the development of transatlantic voyages from 1491 to 1607. |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | European Colonization                     | Explain the context for the colonization of North America from 1607 to 1754. Explain how and why various European colonies developed and expanded from 1607 to 1754.<br>Explain how and why environmental and other factors shaped the development and expansion of various British colonies that developed and expanded from 1607 to 1754.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

|   |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                         | Explain causes and effects of transatlantic trade over time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 四 | Society in the Colonies | <p>Explain how and why interactions between various European nations and American Indians changed over time.</p> <p>Explain the causes and effects of slavery in the various British colonial regions. Explain how enslaved people responded to slavery.</p> <p>Explain how and why the movement of a variety of people and ideas across the Atlantic contributed to the development of American culture over time.</p> <p>Explain how and why the different goals and interests of European leaders and colonists affected how they viewed themselves and their relationship with Britain.</p> <p>Compare the effects of the development of colonial society in the various regions of North America.</p> |
| 五 | Road to Revolution      | <p>Explain the context in which America gained independence and developed a sense of national identity.</p> <p>Explain the causes and effects of the Seven Years' War (the French and Indian War). Explain how British colonial policies regarding North America led to the Revolutionary War.</p> <p>Explain how and why colonial attitudes about government and the individual changed in the years leading up to the American Revolution.</p> <p>Explain how various factors contributed to the American victory in the Revolution.</p> <p>Explain the various ways the American Revolution affected society.</p>                                                                                       |
| 六 | New Governments         | <p>Explain how different forms of government developed and changed as a result of the Revolutionary Period.</p> <p>Explain the differing ideological positions on the structure and function of the federal government.</p> <p>Explain the continuities and changes in the structure and functions of the government with the ratification of the Constitution.</p>                                                                                                                                                                                                                                                                                                                                        |
| 七 | The Early Republic      | <p>Explain how and why competition intensified conflicts among peoples and nations from 1754 to 1800.</p> <p>Explain how and why political ideas, institutions, and party systems developed and changed in the new republic.</p> <p>Explain the continuities and changes in American culture from 1754 to 1800. Explain how and why migration and immigration to and within North America caused competition and conflict over time.</p> <p>Explain the continuities and changes in regional attitudes about slavery as it expanded from 1754 to 1800.</p>                                                                                                                                                 |

|    |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                           | Explain how the American independence movement affected society from 1754 to 1800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 八  | America on the World Stage                                | <p>Explain the context in which the republic developed from 1800 to 1848.</p> <p>Explain the causes and effects of policy debates in the early republic.</p> <p>Explain how different regional interests affected debates about the role of the federal government in the early republic.</p> <p>Explain how and why American foreign policy developed and expanded over time.</p>                                                                                                                                                                                                                                                                               |
| 九  | Democracy Expands and Changes                             | <p>Explain the causes and effects of the innovations in technology, agriculture, and commerce over time.</p> <p>Explain how and why innovation in technology, agriculture, and commerce various segments of American society over time.</p> <p>Explain the causes and effects of the expansion of participatory democracy from 1800 to 1848.</p> <p>Explain the causes and effects of continuing policy debates about the role of the federal government from 1800 to 1848.</p>                                                                                                                                                                                  |
| 十  | American Society and Culture                              | <p>Explain how and why a new national culture developed from 1800 to 1848. Explain the causes of the Second Great Awakening.</p> <p>Explain how and why various reform movements developed and expanded from 1800 to 1848.</p> <p>Explain the continuities and changes in the experience of African Americans from 1800 to 1848.</p> <p>Explain how geographic and environmental factors shaped the development of the South from 1800 to 1848.</p> <p>Explain the extent to which politics, economics, and foreign policy promoted the development of American identity from 1800 to 1848.</p>                                                                  |
| 十一 | Assessment/Review Week                                    | Assessment/Review Week                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 十二 | American Expansion and Conflict                           | <p>Explain the context in which sectional conflict emerged from 1844 to 1877. Explain the causes and effects of westward expansion from 1844 to 1877. Explain the causes and effects of the Mexican-American War.</p> <p>Explain the similarities and differences in how regional attitudes affected federal policy in the period after the Mexican-American War.</p> <p>Explain the effects of immigration from various parts of the world on American culture from 1844 to 1877.</p> <p>Explain how regional differences related to slavery caused tension in the years leading up to the Civil War.</p> <p>Explain the political causes of the Civil War.</p> |
| 十三 | The Civil War Describe the effects of Lincoln's election. | Explain the various factors that contributed to the Union victory in the Civil War.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



|       |                              |                                      |                                                                                                                                                                                                                                                                                                                                                       |
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|       |                              |                                      | Explain how Lincoln's leadership during the Civil War impacted American ideals over the course of the war.                                                                                                                                                                                                                                            |
|       | 十四                           | Reconstruction and its Failure       | <p>Explain the effects of government policy during Reconstruction on society from 1865 to 1877.</p> <p>Explain how and why Reconstruction resulted in continuity and change in regional and national understandings of what it meant to be American.</p> <p>Compare the relative significance of the effects of the Civil War on American values.</p> |
|       | 十五                           | Westward Expansion and the New South | <p>Explain the historical context for the rise of industrial capitalism in the United States.</p> <p>Explain the causes and effects of the settlement of the West from 1877 to 1898.</p> <p>Explain how various factors contributed to continuity and change in the "New South" from 1877 to 1898.</p>                                                |
|       | 十六                           | Technology, Capitalism, and Labor    | <p>Explain the effects of technological advances in the development of the United States over time.</p> <p>Explain the socioeconomic continuities and changes associated with the growth of industrial capitalism from 1865 to 1898.</p>                                                                                                              |
|       | 十七                           | Review and Reflections               | Review and Reflections                                                                                                                                                                                                                                                                                                                                |
|       | 十八                           | AP Exam Practice                     | AP Exam Practice                                                                                                                                                                                                                                                                                                                                      |
|       | 十九                           |                                      |                                                                                                                                                                                                                                                                                                                                                       |
|       | 二十                           |                                      |                                                                                                                                                                                                                                                                                                                                                       |
|       | 二十一                          |                                      |                                                                                                                                                                                                                                                                                                                                                       |
|       | 二十二                          |                                      |                                                                                                                                                                                                                                                                                                                                                       |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                      |                                                                                                                                                                                                                                                                                                                                                       |
| 備註：   | 全英授課                         |                                      |                                                                                                                                                                                                                                                                                                                                                       |

|         |                                                                                                                                                                                                                                                                                          |                                                                |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 課程名稱：   | 中文名稱：AP個體經濟學                                                                                                                                                                                                                                                                             |                                                                |
|         | 英文名稱：AP Microeconomics                                                                                                                                                                                                                                                                   |                                                                |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                    | 學分總數：4                                                         |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                   |                                                                |
| 議題融入：   | 閱讀素養、國際教育                                                                                                                                                                                                                                                                                |                                                                |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                   |                                                                |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                      |                                                                |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                      |                                                                |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                      |                                                                |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                   |                                                                |
| 學習目標：   | <ul style="list-style-type: none"> <li>Define and interpret economic principles and models.</li> <li>Explain given economic outcomes.</li> <li>Determine outcomes of specific economic situations.</li> <li>Model economic situations using graphs or visual representations.</li> </ul> |                                                                |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                     | 單元/主題                                                          |
|         | 一                                                                                                                                                                                                                                                                                        | Unit 1: Basic Economic Concepts                                |
|         | 二                                                                                                                                                                                                                                                                                        | Unit 1: Basic Economic Concepts                                |
|         | 三                                                                                                                                                                                                                                                                                        | Unit 1: Basic Economic Concepts                                |
|         | 四                                                                                                                                                                                                                                                                                        | Unit 2: Supply and Demand                                      |
|         | 五                                                                                                                                                                                                                                                                                        | Unit 2: Supply and Demand                                      |
|         | 六                                                                                                                                                                                                                                                                                        | Unit 2: Supply and Demand                                      |
|         | 七                                                                                                                                                                                                                                                                                        | Unit 2: Supply and Demand                                      |
|         | 八                                                                                                                                                                                                                                                                                        | Unit 3: Production, Cost, and the Perfect Competition Model    |
|         | 九                                                                                                                                                                                                                                                                                        | Unit 3: Production, Cost, and the Perfect Competition Model    |
|         | 十                                                                                                                                                                                                                                                                                        | Unit 3: Production, Cost, and the Perfect Competition Model    |
|         | 十一                                                                                                                                                                                                                                                                                       | Unit 4: Imperfect Competition                                  |
|         | 十二                                                                                                                                                                                                                                                                                       | Unit 4: Imperfect Competition                                  |
|         | 十三                                                                                                                                                                                                                                                                                       | Unit 4: Imperfect Competition                                  |
|         | 十四                                                                                                                                                                                                                                                                                       | Unit 5: Factor Markets                                         |
|         | 十五                                                                                                                                                                                                                                                                                       | Unit 5: Factor Markets                                         |
|         | 十六                                                                                                                                                                                                                                                                                       | Unit 6: Market Failure and the Role of Government              |
|         | 十七                                                                                                                                                                                                                                                                                       | Unit 6: Market Failure and the Role of Government              |
|         | 十八                                                                                                                                                                                                                                                                                       | Wrap up                                                        |
|         | 十九                                                                                                                                                                                                                                                                                       |                                                                |
|         | 二十                                                                                                                                                                                                                                                                                       |                                                                |
|         | 二十一                                                                                                                                                                                                                                                                                      |                                                                |
|         |                                                                                                                                                                                                                                                                                          | 內容綱要                                                           |
|         |                                                                                                                                                                                                                                                                                          | Topic 1: Introduction to AP Microeconomics                     |
|         |                                                                                                                                                                                                                                                                                          | Topic 2: Modeling Opportunity Costs, Specialization, and Trade |
|         |                                                                                                                                                                                                                                                                                          | Topic 3: The Foundational Model – Supply and Demand            |
|         |                                                                                                                                                                                                                                                                                          | Topic 4: International Trade and Public Policy                 |
|         |                                                                                                                                                                                                                                                                                          | Topic 5: Elasticity                                            |
|         |                                                                                                                                                                                                                                                                                          | Topic 6: Total Welfare and Tax Incidence                       |
|         |                                                                                                                                                                                                                                                                                          | Topic 7: Consumer Choice Theory                                |
|         |                                                                                                                                                                                                                                                                                          | Topic 8: Profit and Profit Maximization                        |
|         |                                                                                                                                                                                                                                                                                          | Topic 9: The Production Function and Firm Costs                |
|         |                                                                                                                                                                                                                                                                                          | Topic 10: The Perfectly Competitive Market and Firm            |
|         |                                                                                                                                                                                                                                                                                          | Topic 11: Monopoly                                             |
|         |                                                                                                                                                                                                                                                                                          | Topic 12: Monopolistic Competition                             |
|         |                                                                                                                                                                                                                                                                                          | Topic 13: Oligopoly                                            |
|         |                                                                                                                                                                                                                                                                                          | Topic 14: Competitive Labor Markets and Monopsony              |
|         |                                                                                                                                                                                                                                                                                          | Topic 15: Other Factor Markets and Input Combinations          |
|         |                                                                                                                                                                                                                                                                                          | Topic 16: Externalities and Socially Optimal Outcomes          |
|         |                                                                                                                                                                                                                                                                                          | Topic 17: Public Goods and Income Distribution                 |
|         |                                                                                                                                                                                                                                                                                          | Reflections and Final Thoughts                                 |

|       |                              |  |
|-------|------------------------------|--|
|       | 二十<br>二                      |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |
| 備註：   |                              |  |

|             |                                                                                                                                                                                                                       |                                                                      |                                                                                                                                        |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：AP統計學(上)                                                                                                                                                                                                         |                                                                      |                                                                                                                                        |
|             | 英文名稱：AP Statistics                                                                                                                                                                                                    |                                                                      |                                                                                                                                        |
| 授課年段：       | 二上、三上 學分總數：4                                                                                                                                                                                                          |                                                                      |                                                                                                                                        |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                |                                                                      |                                                                                                                                        |
| 議題融入：       | 科技                                                                                                                                                                                                                    |                                                                      |                                                                                                                                        |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                |                                                                      |                                                                                                                                        |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                   |                                                                      |                                                                                                                                        |
|             | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                                                   |                                                                      |                                                                                                                                        |
|             | C社會參與：C1.道德實踐與公民意識,                                                                                                                                                                                                   |                                                                      |                                                                                                                                        |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                |                                                                      |                                                                                                                                        |
| 學習目標：       | Learn about the major concepts and tools used for collecting, analyzing, and drawing conclusions from data. You' ll explore statistics through discussion and activities, and you' ll design surveys and experiments. |                                                                      |                                                                                                                                        |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                              | 單元/主題                                                                | 內容綱要                                                                                                                                   |
|             | 一                                                                                                                                                                                                                     | Unit 1: Exploring One-Variable Data                                  | Variation in categorical and quantitative variables                                                                                    |
|             | 二                                                                                                                                                                                                                     | Unit 1: Exploring One-Variable Data                                  | Representing data using tables or graphs                                                                                               |
|             | 三                                                                                                                                                                                                                     | Unit 1: Exploring One-Variable Data                                  | Calculating and interpreting statistics                                                                                                |
|             | 四                                                                                                                                                                                                                     | Unit 1: Exploring One-Variable Data                                  | Describing and comparing distributions of data<br>The normal distribution                                                              |
|             | 五                                                                                                                                                                                                                     | Unit 2: Exploring Two-Variable Data                                  | Representing bivariate quantitative data using scatter plots<br>Describing associations in bivariate data and interpreting correlation |
|             | 六                                                                                                                                                                                                                     | Unit 2: Exploring Two-Variable Data                                  | Representing bivariate quantitative data using scatter plots<br>Describing associations in bivariate data and interpreting correlation |
|             | 七                                                                                                                                                                                                                     | Unit 2: Exploring Two-Variable Data                                  | Linear regression models<br>Residuals and residual plots                                                                               |
|             | 八                                                                                                                                                                                                                     | Unit 2: Exploring Two-Variable Data                                  | Departures from linearity                                                                                                              |
|             | 九                                                                                                                                                                                                                     | Unit 3: Collecting Data                                              | Planning a study<br>Sampling methods                                                                                                   |
|             | 十                                                                                                                                                                                                                     | Unit 3: Collecting Data                                              | Sources of bias in sampling methods                                                                                                    |
|             | 十一                                                                                                                                                                                                                    | Unit 3: Collecting Data                                              | Designing an experiment                                                                                                                |
|             | 十二                                                                                                                                                                                                                    | Unit 3: Collecting Data                                              | Interpreting the results of an experiment                                                                                              |
|             | 十三                                                                                                                                                                                                                    | Unit 4: Probability, Random Variables, and Probability Distributions | Using simulation to estimate probabilities                                                                                             |
|             | 十四                                                                                                                                                                                                                    | Unit 4: Probability, Random Variables, and Probability Distributions | Calculating the probability of a random event                                                                                          |
|             | 十五                                                                                                                                                                                                                    | Unit 4: Probability, Random Variables, and Probability Distributions | Random variables and probability distributions                                                                                         |

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|       | 十六                           | Unit 4: Probability, Random Variables, and Probability Distributions | The binomial distribution  |
|       | 十七                           | Unit 4: Probability, Random Variables, and Probability Distributions | The geometric distribution |
|       | 十八                           | Wrap up                                                              | Questions and Discussions  |
|       | 十九                           |                                                                      |                            |
|       | 二十                           |                                                                      |                            |
|       | 二十一                          |                                                                      |                            |
|       | 二十二                          |                                                                      |                            |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                                      |                            |
| 備註：   | 全英語授課                        |                                                                      |                            |

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|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 課程名稱：       | 中文名稱：AP預科微積分(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                              |
|             | 英文名稱：AP Pre-Calculus I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                              |
| 授課年段：       | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 學分總數：4                                       |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                              |
| 議題融入：       | 生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                              |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                              |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |
|             | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |
|             | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                |                                              |
| 學習目標：       | <ul style="list-style-type: none"> <li>• Compare different types of functions to make general conclusions.</li> <li>• Solve algebraic and transcendental equations using analytical, numerical, and graphical methods.</li> <li>• Analyze graphs of elementary functions: linear, quadratic, polynomial, exponential, logarithmic, and trigonometric functions.</li> <li>• Interpret models of elementary functions: linear, quadratic, polynomial, exponential, logarithmic, and trigonometric functions.</li> </ul> |                                              |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題                                        |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 Polynomial and Rational Functions     |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 1 Polynomial and Rational Functions     |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 2 Exponential and Logarithmic Functions |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 2 Exponential and Logarithmic Functions |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 2 Exponential and Logarithmic Functions |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 2 Exponential and Logarithmic Functions |
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|       | 十六                         | Unit 2 Exponential and Logarithmic Functions | Unit 2 Summative Review        |
|       | 十七                         | Review                                       | Questions and Discussions      |
|       | 十八                         | Wrap-Up                                      | Reflections and Final Thoughts |
|       | 十九                         |                                              |                                |
|       | 二十                         |                                              |                                |
|       | 二十一                        |                                              |                                |
|       | 二十二                        |                                              |                                |
| 學習評量： | 40% 課堂參與、30% 回家作業、30% 專題報告 |                                              |                                |
| 備註：   |                            |                                              |                                |

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【備查版】



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| 課程名稱：   | 中文名稱： AP歐洲歷史(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|         | 英文名稱： AP European History                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                       | 學分總數： 8                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 議題融入：   | 性別平等、人權、生命、法治、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|         | B溝通互動： B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|         | C社會參與： C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 學習目標：   | Identify and explain historical developments and processes throughout European history.<br>Analyze sourcing and situation of primary and secondary sources.<br>Analyze arguments in primary and secondary sources.<br>Analyze the context of historical events, developments, or processes.<br>Analyze patterns and connections between and among historical developments and processes using historical reasoning processes (comparison, causation, continuity and change).<br>Develop an Argument. |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 單元/主題                                                 | 內容綱要                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Review and discussion the learning from last semester | Review and discussion the learning from last semester                                                                                                                                                                                                                                                                                                                                                                                                               |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nationalism and the Unification of Germany and Italy  | Explain the context in which nationalistic and imperialistic sentiments developed in Europe from 1815 to 1914.<br>Explain how the development and spread of nationalism affected Europe from 1815 to 1914.<br>Explain the factors that resulted in Italian unification and German unification.<br>Explain how nationalist sentiment and political alliances led to tension between and among European powers from 1815 to 1914.                                     |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The Rise of Modern European Thought                   | Explain how Darwin’s theories influenced scientific and social developments from 1815 to 1914.<br>Explain how science and other intellectual disciplines developed and changed throughout the period from 1815 to 1914.                                                                                                                                                                                                                                             |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Imperialism in Africa and Asia                        | Explain the motivations that led to European imperialism in the period from 1815 to 1914.<br>Explain how technological advances enabled European imperialism from 1815 to 1914.<br>Explain how European imperialism affected both European and nonEuropean societies.<br>Explain the continuities and changes in European artistic expression from 1815 to 1914.<br>Explain the influence of nationalist and imperialist movements on European and global stability |

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| 五  | The War to Change all Wars   | <p>Explain the context in which global conflict developed in the 20th century</p> <p>Explain the causes and effects of World War I.</p> <p>Explain how new technology altered the conduct of World War I.</p> <p>Explain how the developments of World War I changed political and diplomatic interactions between and among nations.</p>              |
| 六  | War and Revolution           | <p>Explain the causes and effects of the Russian Revolution.</p> <p>Explain how and why the settlement of World War I failed to effectively resolve the political, economic, and diplomatic challenges of the early 20th century</p> <p>Explain the causes and effects of the global economic crisis in the 1920s and 1930s.</p>                       |
| 七  | The Interwar Years           | <p>Explain the factors that led to the development of fascist and totalitarian regimes in the aftermath of World War I.</p> <p>Explain the consequences of Stalin's economic policies and totalitarian rule in the Soviet Union.</p> <p>Explain how and why various political and ideological factors resulted in the catastrophe of World War II.</p> |
| 八  | World War II                 | <p>Explain how technology and innovation affected the course of World War II and the 20th century</p> <p>Explain how and why cultural and national identities were affected by war and the rise of fascist/totalitarian powers in the period from 1914 to the present.</p>                                                                             |
| 九  | World War II                 | <p>Explain how the events of the first half of the 20th century challenged existing social, cultural, and intellectual understandings.</p> <p>Explain how economic challenges and ideological beliefs influenced prior conceptions about the relationship between the individual and the state.</p>                                                    |
| 十  | Review and Assessment        | Review and Assessment                                                                                                                                                                                                                                                                                                                                  |
| 十一 | Post-War Europe              | <p>Explain the context in which the Cold War developed, spread, and ended in Europe.</p> <p>Explain how economic developments resulted in economic, political, and cultural change in the period after World War II.</p>                                                                                                                               |
| 十二 | The Cold War                 | <p>Explain the causes, events, and effects of the Cold War in the period following World War II.</p> <p>Explain the economic and political consequences of the Cold War for Europe.</p> <p>Explain the causes and effects of mass atrocities in the period following World War II to the present.</p>                                                  |
| 十三 | The Fall of the Soviet Union | <p>Explain state-based economic developments following World War II and the responses to these developments.</p> <p>Explain the causes and effects of the end</p>                                                                                                                                                                                      |

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|       |     |                                            | <p>of the Cold War.</p> <p>Explain the various ways in which colonial groups around the world sought independence from colonizers in the 20th and 21st centuries.</p> <p>Explain how the formation and existence of the European Union influenced economic developments throughout the period following World War II to the present.</p>                                                                                                             |
|       | 十四  | Immigration, Globalization, and Technology | <p>Explain how the European Union affected national and European identity throughout the period following World War II to the present.</p> <p>Explain the causes and effects of changes to migration within and immigration to Europe throughout the period following World War II to the present.</p> <p>Explain how innovation and advances in technology influenced cultural and intellectual developments in the period 1914 to the present.</p> |
|       | 十五  | Feminism and Culture                       | <p>Explain how women's roles and status developed and changed throughout the 20th and 21st centuries.</p> <p>Explain how and why European culture changed from the period following World War II to the present.</p> <p>Explain how the challenges of the 20th century influenced what it means to be European.</p>                                                                                                                                  |
|       | 十六  | AP Exam Practice and Review                | AP Exam Practice and Review                                                                                                                                                                                                                                                                                                                                                                                                                          |
|       | 十七  | AP Practice Exam                           | AP Practice Exam                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|       | 十八  | Final Reflections on AP European History   | Final Reflections on AP European History                                                                                                                                                                                                                                                                                                                                                                                                             |
|       | 十九  |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 二十  |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 二十一 |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 二十二 |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 學習評量： |     |                                            | 40% 課堂參與討論、30% 回家作業、30% 專題報告                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 備註：   |     |                                            | 全英授課                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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| 課程名稱：   | 中文名稱： AP歐洲歷史(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|         | 英文名稱： AP European History                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 學分總數： 8                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 議題融入：   | 性別平等、人權、生命、法治、多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|         | B溝通互動： B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|         | C社會參與： C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 學習目標：   | Identify and explain historical developments and processes throughout European history.<br>Analyze sourcing and situation of primary and secondary sources.<br>Analyze arguments in primary and secondary sources.<br>Analyze the context of historical events, developments, or processes.<br>Analyze patterns and connections between and among historical developments and processes using historical reasoning processes (comparison, causation, continuity and change).<br>Develop an Argument. |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 單元/主題                                    | 內容綱要                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Getting Started in AP European History 1 | Understand the rules and policies of the course, and expectations of you as a contributing member of our learning community<br>Begin to build community by sharing important information with your teacher and classmates about yourself and your school, and creating a social contract together for guidelines on interacting throughout the class<br>Develop your skills for navigating the course environment and using the various course tools<br>Identify and explain what makes Europe, Europe.                                                                                                                     |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The Renaissance                          | Explain the context in which the Renaissance and Age of Discovery developed.<br>Explain how the revival of classical texts contributed to the development of the Renaissance in Italy<br>Explain the political, intellectual, and cultural effects of the Italian Renaissance<br>Explain how Renaissance ideas were developed, maintained, and changed as the Renaissance spread to northern Europe.<br>Explain the influence of the printing press on cultural and intellectual developments in modern European history.<br>Explain the causes and effects of the development of political institutions from 1450 to 1648. |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Discovery and Exploration 1              | Explain the technological factors that facilitated European exploration and expansion from 1450 to 1648.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|   |                             | <p>Explain the motivations for and effects of European exploration and expansion from 1450 to 1648.</p> <p>Explain how and why trading networks and colonial expansion affected relations between and among European states.</p> <p>Explain the economic impact of European colonial expansion and development of trade networks.</p>                                                                                                                           |
| 四 | Discovery and Exploration 2 | <p>Explain the social and cultural impact of European colonial expansion and development of trade networks.</p> <p>Explain the causes for and the development of the slave trade.</p> <p>Explain European commercial and agricultural developments and their economic effects from 1450 to 1648.</p> <p>Explain the causes and consequences of the Renaissance and Age of Discovery.</p>                                                                        |
| 五 | The Reformation             | <p>Explain the context in which the religious, political, and cultural developments of the 16th and 17th centuries took place.</p> <p>Explain how and why religious belief and practices changed from 1450 to 1648.</p> <p>Explain how matters of religion influenced and were influenced by political factors from 1450 to 1648.</p>                                                                                                                           |
| 六 | The Age of Religious Wars   | <p>Explain the continuities and changes in the role of the Catholic Church from 1450 to 1648.</p> <p>Explain how economic and intellectual developments from 1450 to 1648 affected social norms and hierarchies.</p> <p>Explain how and why artistic expression changed from 1450 to 1648.</p> <p>Explain how the religious, political, and cultural developments of the 16th and 17th centuries affected European society from 1450 to 1648.</p>               |
| 七 | Absolutism                  | <p>Explain the context in which different forms of political power developed from 1648 to 1815.</p> <p>Explain the causes and consequences of the English Civil War</p> <p>Explain the continuities and changes in commercial and economic developments from 1648 to 1815.</p>                                                                                                                                                                                  |
| 八 | Constitutionalism           | <p>Explain how European states attempted to establish and maintain a balance of power on the continent throughout the period from 1648 to 1815.</p> <p>Explain how advances in technology contributed to a developing balance of power on the continent throughout the period from 1648 to 1815.</p> <p>Explain how absolutist forms of rule affected social and political development from 1648 to 1815.</p> <p>Compare the different forms of political p</p> |

|    |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                    | ower that developed in Europe from 1648 to 1815.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 九  | The Scientific Revolution          | <p>Explain the context in which the Scientific Revolution and Enlightenment developed in Europe.</p> <p>Explain how understanding of the natural world developed and changed during the Scientific Revolution and Enlightenment.</p> <p>Explain how European cultural and intellectual life was maintained and changed throughout the period from 1648 to 1815.</p>                                                                                                                                                                     |
| 十  | The Enlightenment                  | <p>Explain the causes and consequences of Enlightenment thought on European society from 1648 to 1815.</p> <p>Explain the influence of Enlightenment thought on European intellectual development from 1648 to 1815.</p> <p>Explain the factors contributing to and the consequences of demographic changes from 1648 to 1815.</p>                                                                                                                                                                                                      |
| 十一 | 18th Century Society and Economy   | <p>Explain how European cultural and intellectual life was maintained and changed throughout the period from 1648 to 1815.</p> <p>Explain how different forms of political power were influenced by Enlightenment thought from 1648 to 1815.</p> <p>Explain how and why political and religious developments challenged or reinforced the idea of a unified Europe from 1648 to 1815.</p> <p>Explain how and why the Scientific Revolution and Enlightenment challenged the existing European order and understanding of the world.</p> |
| 十二 | Review and Assessment Week         | Review and Assessment Week                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 十三 | The Struggle for Wealth and Empire | <p>Explain the context in which the European states experienced crisis and conflict from 1648 to 1815.</p> <p>Explain the causes and consequences of European maritime competition from 1648 to 1815.</p> <p>Explain the economic and political consequences of the rivalry between Britain and France from 1648 to 1815.</p>                                                                                                                                                                                                           |
| 十四 | The French Revolution              | <p>Explain the causes, events, and consequences of the French Revolution.</p> <p>Explain how the events and developments of the French Revolution influenced political and social ideas from 1648 to 1815.</p>                                                                                                                                                                                                                                                                                                                          |
| 十五 | The Industrial Revolution          | <p>Explain the context in which industrialization originated, developed, and spread in Europe.</p> <p>Explain the factors that influenced the development of industrialization in Europe from 1815 to 1914.</p> <p>Explain how innovations and advances in technology during the Industrial Revolutions led to economic and social change.</p> <p>Explain how industrialization influenced e</p>                                                                                                                                        |

|       |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|       |                              | conomic and political development throughout the period from 1815 to 1914.<br>Explain the causes and consequences of social developments resulting from industrialization.                                                                                                                                                                                                                                                                                                                            |
|       | 十六                           | The Conservative Order and its Challenges<br>Explain how the European political order was maintained and challenged from 1815 to 1914.<br>Explain how and why various groups reacted against the existing order from 1815 to 1914.                                                                                                                                                                                                                                                                    |
|       | 十七                           | Social Change and Unrest<br>Explain how and why different intellectual developments challenged the political and social order from 1815 to 1914.<br>Explain the various movements and calls for social reform that resulted from intellectual developments from 1815 to 1914.<br>Explain how and why governments and other institutions responded to challenges resulting from industrialization.<br>Explain the influence of innovations and technological developments in Europe from 1815 to 1914. |
|       | 十八                           | Review<br>Review                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 十九                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|       | 二十                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|       | 二十一                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|       | 二十二                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 備註：   | 全英授課                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



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| 課程名稱：   | 中文名稱：人類學、心理學與社會學導論(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                         |
|         | 英文名稱：Introduction to Anthropology, Psychology, and Sociology I                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                         |
| 授課年段：   | 二上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 學分總數：3                                                  |
| 課程屬性：   | 跨領域/科目專題                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                         |
| 議題融入：   | 生命、多元文化                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                         |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                         |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                         |
|         | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                         |
|         | C社會參與：C1.道德實踐與公民意識, C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                     |                                                         |
| 學習目標：   | This course provides you with opportunities to think critically about theories, questions, and issues related to anthropology, psychology, and sociology. You will develop an understanding of the approaches and research methods used by social scientists. You will also be given opportunities to explore theories from a variety of perspectives, to conduct social science research, and to become familiar with current thinking on a range of issues within the three disciplines. |                                                         |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                                   |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Research methods in the social sciences - Part A |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Research methods in the social sciences - Part A |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Research methods in the social sciences - Part A |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 Research methods in the social sciences - Part A |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 Research methods in the social sciences - Part B |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 Research methods in the social sciences - Part B |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 Research methods in the social sciences - Part B |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 Research methods in the social sciences - Part B |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 Research methods in the social sciences - Part B |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 Research methods in the social sciences - Part B |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3 Psychology - Part A                              |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3 Psychology - Part A                              |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3 Psychology - Part A                              |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3 Psychology - Part A                              |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3 Psychology - Part A                              |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3 Psychology - Part A                              |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Project                                           |
|         | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Project                                           |
|         | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |
|         | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |

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|-------|------------------------------|--|--|
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   |                              |  |  |

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| 課程名稱：   | 中文名稱： 化學彩色王國                                                                                                                                                                                                           |                           |                                             |
|         | 英文名稱： Chemistry - A Colorful Kingdom                                                                                                                                                                                   |                           |                                             |
| 授課年段：   | 二上                                                                                                                                                                                                                     | 學分總數： 2                   |                                             |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                                                                                                            |                           |                                             |
| 議題融入：   | 環境、科技                                                                                                                                                                                                                  |                           |                                             |
| 師資來源：   | 校內單科                                                                                                                                                                                                                   |                           |                                             |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                   |                           |                                             |
|         | B溝通互動： B2.科技資訊與媒體素養,                                                                                                                                                                                                   |                           |                                             |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                                                                   |                           |                                             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                             |                           |                                             |
| 學習目標：   | 1.引導學生認識科學活動並提升學生學習科學的動機與興趣。<br>2.將化學基本知識與實驗操作技能融入課程，使學生熟悉科學常用的工具。<br>3.以探究課程教學模式培養學生思考、解決問題的能力，並激發其創造力與找到最佳化條件能力，以培養細心與耐心的科學態度。<br>4.培養學生做中學與報告撰寫表達的能力，包括統整實驗數據、省思等。<br>5.學生在面對挫折能藉由彼此合作、腦力激盪，累積解決問題的毅力與勇氣，增進自我挑戰自信心。 |                           |                                             |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                   | 單元/主題                     | 內容綱要                                        |
|         | 一                                                                                                                                                                                                                      | 認識科學活動                    | 相見歡與分組選幹部、介紹課程內容                            |
|         | 二                                                                                                                                                                                                                      | Color chemistry(一)        | 基礎實驗技能：指示劑變色                                |
|         | 三                                                                                                                                                                                                                      | Color chemistry(一)        | 基礎實驗技能與表達分享：指示劑變色(含A4紙美編設計)                 |
|         | 四                                                                                                                                                                                                                      | Color chemistry(二)        | 基礎實驗技能：神奇的七個杯子，了解酸鹼指示劑的變色範圍                 |
|         | 五                                                                                                                                                                                                                      | Color chemistry(二)        | 基礎實驗技能與表達分享：完成神奇的七個杯子之科學筆記與報告(含A4紙美編設計)     |
|         | 六                                                                                                                                                                                                                      | Color chemistry(三)        | 基礎實驗技能：銅與碘化合物的色變，探究化學反應的顏色變化與應用             |
|         | 七                                                                                                                                                                                                                      | Color chemistry(三)        | 基礎實驗技能與表達分享：完成銅與碘化合物的色變之科學筆記與報告含A4紙美編設計)    |
|         | 八                                                                                                                                                                                                                      | Color chemistry(四)        | 基礎實驗技能：草酸鐵鉀晶體之合成，了解化學反應之合成技術(酸鹼反與金屬錯合反應)    |
|         | 九                                                                                                                                                                                                                      | Color chemistry(四)        | 基礎實驗技能：利用草酸鐵鉀之晶體進行藍印術實作，探究光化反應、氧化還原反應、沉澱反應  |
|         | 十                                                                                                                                                                                                                      | Color chemistry(四)        | 基礎實驗技能：藍印術實作之再精進                            |
|         | 十一                                                                                                                                                                                                                     | Color chemistry(四)        | 基礎實驗技能：草酸鐵鉀晶體結晶水之分析，學習滴定的操作技巧和溶液配製          |
|         | 十二                                                                                                                                                                                                                     | Color chemistry(四)        | 表現分享：學生完成草酸鐵鉀晶體系列課程之科學筆記與報告，分享養晶過程之甘苦和藍印術成品 |
|         | 十三                                                                                                                                                                                                                     | 分子料理                      | 介紹分子料理，認識晶球化、凝膠化與乳化作用                       |
|         | 十四                                                                                                                                                                                                                     | 分子料理                      | 實作分子料理，體驗食物的美。了解正向晶球化與反向晶球化                 |
|         | 十五                                                                                                                                                                                                                     | 分子料理                      | 調整變因探究凝膠化與乳化作用的原理                           |
|         | 十六                                                                                                                                                                                                                     | 分子料理                      | 實作分子料理，探究凝膠化與乳化作用的原理並找出最佳化組合                |
| 十七      | 分子料理                                                                                                                                                                                                                   | 學生完整呈現美麗的分料理，完成實驗報告和日誌並分享 |                                             |

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|       | 十八                                                               | 表達分享 | 學期課程成果發表 |
|       | 十九                                                               |      |          |
|       | 二十                                                               |      |          |
|       | 二十一                                                              |      |          |
|       | 二十二                                                              |      |          |
|       |                                                                  |      |          |
| 學習評量： | 學習態度 10%<br>實驗報告、日誌、學習單 50%<br>成果發表40%（創意實驗錄影3分鐘，海報口頭發表，自評與互評成績） |      |          |
| 備註：   |                                                                  |      |          |

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| 課程名稱：   | 中文名稱： 心理學(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 |                                                                                                                                 |
|         | 英文名稱： Psychology I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 |                                                                                                                                 |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 學分總數： 3                         |                                                                                                                                 |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |                                                                                                                                 |
| 議題融入：   | 生涯規劃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |                                                                                                                                 |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |                                                                                                                                 |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 |                                                                                                                                 |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |                                                                                                                                 |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |                                                                                                                                 |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 |                                                                                                                                 |
| 學習目標：   | 1. Explore and understand the origin and basic goals of psychology.<br>2. Become familiar with various approaches used in psychology, including behaviorism, functionalism, psychoanalysis, humanism, and others.<br>3. Understand the two basic types of behavior conditioning - classical and operant.<br>4. Explore thought and memory.<br>5. Review group dynamics.<br>6. Examine the world of abnormal psychology.<br>7. Become familiar with various theories concerning psychosocial development.<br>8. Explore the world of sleep and dreams.<br>9. Have the opportunity to research a psychological or para-psychological subject of their choosing and present it to the other students.<br>10. Keep an insightful journal about relative issues concerning students and people today. |                                 |                                                                                                                                 |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題                           | 內容綱要                                                                                                                            |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Getting Started          | Get to know one another better to facilitate working relationships<br>Become more familiar with the expectations of this course |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Introducing Psychology   | Get to know one another better to facilitate working relationships                                                              |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Introducing Psychology   | Begin to explore the field of psychology, including its schools of thought and career fields.                                   |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Introducing Psychology   | Learn some basic scientific research concepts as they apply to the field of psychology.                                         |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Biology and Behavior     | Explore the structures of the nervous system and their functions                                                                |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Biology and Behavior     | Explore the nervous system and other biological bases of our behavior                                                           |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Biology and Behavior     | Begin our group project on the various approaches to psychology                                                                 |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 4 Sensation and Perception | Understand the capabilities and limitations of our physical senses                                                              |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 4 Sensation and Perception | Understand the way we form perceptions from sensory information                                                                 |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 4 Sensation and Perception | Predict and explain the ways our senses can be tricked to form false perceptions                                                |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 States of Consciousness  | Explore levels of consciousness                                                                                                 |

|     |                                   |                                |                                                                                                                                                       |
|-----|-----------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | 十二                                | Unit 5 States of Consciousness | Examine the sleep cycle and the various theories used to interpret dreams                                                                             |
|     | 十三                                | Unit 5 States of Consciousness | Explore the various types of illegal drugs and their impacts.                                                                                         |
|     | 十四                                | Unit 6 Types of Conditioning   | Study and evaluate Classical Conditioning, and its applications                                                                                       |
|     | 十五                                | Unit 6 Types of Conditioning   | Study and evaluate Operant Conditioning, and its applications                                                                                         |
|     | 十六                                | Unit 6 Types of Conditioning   | Study and evaluate Cognitive Learning                                                                                                                 |
|     | 十七                                | Unit 7 Memory and Language     | Discover how our minds encode, store, and retrieve memories<br>Explore some exceptional memories, as well as some methods to improve our own memories |
|     | 十八                                | Wrap-Up                        | Reflections and Discussions                                                                                                                           |
|     | 十九                                |                                |                                                                                                                                                       |
|     | 二十                                |                                |                                                                                                                                                       |
|     | 二十一                               |                                |                                                                                                                                                       |
|     | 二十二                               |                                |                                                                                                                                                       |
|     | 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                |                                                                                                                                                       |
| 備註： |                                   | 全英文授課                          |                                                                                                                                                       |

|         |                                                                                                                                        |                                            |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 課程名稱：   | 中文名稱： 日語3                                                                                                                              |                                            |
|         | 英文名稱： Japanese 3                                                                                                                       |                                            |
| 授課年段：   | 二上 學分總數： 2                                                                                                                             |                                            |
| 課程屬性：   | 第二外國語文                                                                                                                                 |                                            |
| 議題融入：   | 多元文化                                                                                                                                   |                                            |
| 師資來源：   | 外聘(其他)                                                                                                                                 |                                            |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進,                                                                                                                   |                                            |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                                   |                                            |
|         | C社會參與： C3.多元文化與國際理解,                                                                                                                   |                                            |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                            |
| 學習目標：   | 1. 提升日語會話能力：能在日常情境中嘗試使用日語。<br>2. 理解基本日語：掌握常用語彙與日常生活中的基礎語法。<br>3. 適應多種學習需求：適合日常交流、旅遊、學術預備等各種場合。                                         |                                            |
| 教學大綱：   | 週次/<br>序                                                                                                                               | 單元/主題                                      |
|         | 一                                                                                                                                      | 復習                                         |
|         | 二                                                                                                                                      | 復習                                         |
|         | 三                                                                                                                                      | 第9課                                        |
|         | 四                                                                                                                                      | 第9課                                        |
|         | 五                                                                                                                                      | 第9課                                        |
|         | 六                                                                                                                                      | 第10課                                       |
|         | 七                                                                                                                                      | 第10課                                       |
|         | 八                                                                                                                                      | 第10課                                       |
|         | 九                                                                                                                                      | 標準問題集                                      |
|         | 十                                                                                                                                      | 第11課                                       |
|         | 十一                                                                                                                                     | 第11課                                       |
|         | 十二                                                                                                                                     | 第11課                                       |
|         | 十三                                                                                                                                     | 第12課                                       |
|         | 十四                                                                                                                                     | 第12課                                       |
|         | 十五                                                                                                                                     | 第12課                                       |
|         | 十六                                                                                                                                     | 復習C                                        |
|         | 十七                                                                                                                                     | 標準問題集                                      |
|         | 十八                                                                                                                                     | 測驗                                         |
|         | 十九                                                                                                                                     |                                            |
|         | 二十                                                                                                                                     |                                            |
|         |                                                                                                                                        | 內容綱要                                       |
|         |                                                                                                                                        | 第5~6課                                      |
|         |                                                                                                                                        | 第7~8課                                      |
|         |                                                                                                                                        | 課文：“很遺憾~” p. 112~121<br>句型練習A(文法)          |
|         |                                                                                                                                        | 課文：“很遺憾~”<br>單字/相關詞彙/例文/會話                 |
|         |                                                                                                                                        | 課文：“很遺憾~”<br>練習B、C/聽力. 造句練習                |
|         |                                                                                                                                        | 課文：“有魚露嗎?” p. 122~131<br>句型練習A(文法)         |
|         |                                                                                                                                        | 課文：“有魚露嗎?”<br>單字/相關單字詞彙/例文                 |
|         |                                                                                                                                        | 課文：“有魚露嗎?”<br>單字(方向)複習/會話(情境)練習/練習B、C/聽力練習 |
|         |                                                                                                                                        | 第9~10課/檢討                                  |
|         |                                                                                                                                        | 課文：“這個麻煩您了” p. 132~141<br>單字(量詞)           |
|         |                                                                                                                                        | 課文：“這個麻煩您了”<br>單字/句型/練習A(文法)/例文            |
|         |                                                                                                                                        | 數字讀法/會話/練習B、C/聽力練習                         |
|         |                                                                                                                                        | 課文：“祇園祭怎麼樣?”<br>句型練習A(文法)                  |
|         |                                                                                                                                        | 課文：“祇園祭怎麼樣?” p. 142~151<br>單字/相關單字詞彙/例文    |
|         |                                                                                                                                        | 課文：“祇園祭怎麼樣?”<br>會話練習/練習B、C/聽力練習            |
|         |                                                                                                                                        | 第8~12課復習p. 152-153+小測驗                     |
|         |                                                                                                                                        | 第10~12課/檢討                                 |
|         |                                                                                                                                        | 課堂測驗(第9~12課)                               |



|       |                            |  |  |
|-------|----------------------------|--|--|
|       | 二十一                        |  |  |
|       | 二十二                        |  |  |
| 學習評量： | 課堂參與及實作50%、平時表現25%、期末測驗25% |  |  |
| 備註：   |                            |  |  |

【備查版】

【備查版】

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                  |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| 課程名稱：   | 中文名稱：行銷：零售與服務產業(上)                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                  |
|         | 英文名稱：Marketing: Retail and Service I                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
| 授課年段：   | 二上                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 學分總數：3                           |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
| 議題融入：   | 科技、資訊、生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                  |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                  |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                  |
|         | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                  |
|         | C社會參與：C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                |                                  |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                           |                                  |
| 學習目標：   | This course focuses on marketing activities in the retail and service sectors. You will examine trends and global influences on marketing decisions, and will learn about the importance of customer service in developing a customer base and maintaining customer loyalty. Through hands-on learning, you will develop personal selling and information technology skills that will prepare you for a variety of marketing-related positions in the workplace. |                                  |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題                            |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Marketing fundamentals    |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Marketing fundamentals    |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Marketing fundamentals    |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Marketing fundamentals    |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Marketing fundamentals    |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Marketing fundamentals    |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Marketing fundamentals    |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 1 Marketing fundamentals    |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Consumers and competition |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 2 Consumers and competition |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 Consumers and competition |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 Consumers and competition |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 Consumers and competition |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 Consumers and competition |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 Consumers and competition |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 Consumers and competition |

Lesson 1: An overview of marketing fundamentals

Lesson 2: Marketing products and services

Lesson 2: Marketing products and services

Lesson 3: The importance of price in the marketing mix

Lesson 3: The importance of price in the marketing mix

Lesson 4: Getting goods and services to the right place

Lesson 5: Methods of advertising and sales promotion

Lesson 5: Methods of advertising and sales promotion

Lesson 6: Types of consumers

Lesson 6: Types of consumers

Lesson 7: Consumer behavior

Lesson 7: Consumer behavior

Lesson 8: Marketing research for retail and service businesses

Lesson 8: Marketing research for retail and service businesses

Lesson 9: The competitive market

Lesson 9: The competitive market

|       |                              |                                  |                                     |
|-------|------------------------------|----------------------------------|-------------------------------------|
|       | 十七                           | Unit 2 Consumers and competition | Lesson 10: The selling process      |
|       | 十八                           | Wrap-Up                          | Review, Reflections and Discussions |
|       | 十九                           |                                  |                                     |
|       | 二十                           |                                  |                                     |
|       | 二十一                          |                                  |                                     |
|       | 二十二                          |                                  |                                     |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                  |                                     |
| 備註：   | 全英文授課                        |                                  |                                     |

【備查版】

【備查版】

|         |                                                                                                                                        |         |                                                                                                 |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 西班牙語3                                                                                                                            |         |                                                                                                 |
|         | 英文名稱： Spanish 3                                                                                                                        |         |                                                                                                 |
| 授課年段：   | 二上                                                                                                                                     | 學分總數： 2 |                                                                                                 |
| 課程屬性：   | 第二外國語文                                                                                                                                 |         |                                                                                                 |
| 議題融入：   | 多元文化、國際教育                                                                                                                              |         |                                                                                                 |
| 師資來源：   | 外聘(其他)                                                                                                                                 |         |                                                                                                 |
| 課綱核心素養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                  |         |                                                                                                 |
|         | B溝通互動： B1. 符號運用與溝通表達, B3. 藝術涵養與美感素養,                                                                                                   |         |                                                                                                 |
|         | C社會參與： C3. 多元文化與國際理解,                                                                                                                  |         |                                                                                                 |
| 學生圖像：   | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3. 個性完善：愛心熱誠、誠信正直、自律自省。， 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |         |                                                                                                 |
| 學習目標：   | 1. 西班牙文發音、音節、重音規則。<br>2. 基礎句型及語法概念介紹。<br>3. 日常生活表達，包含問候、自我介紹、方位描述、數字、購物、日常習慣等。<br>4. 西語國家文化認識。<br>5. 加強日常生活單字的練習，以擴展學生習得的單字量。          |         |                                                                                                 |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題   | 內容綱要                                                                                            |
|         | 一                                                                                                                                      | 相見歡     | 認識同學，分享假期經歷<br>上學年西語文法暖身操                                                                       |
|         | 二                                                                                                                                      | 個人性格-進階 | 個人性格-進階版相關詞彙<br>陰/陽性分辨<br>描述同學個性                                                                |
|         | 三                                                                                                                                      | 運動篇     | 相關詞彙<br>聊聊台灣的運動種類<br>了解同學從事何種運動<br>用西語解釋運動規則<br>動詞： jugar                                       |
|         | 四                                                                                                                                      | 最高級用法   | 最喜歡/想…句型:me gusta mucho/ me apetece hacer…<br>最不喜歡/討厭…句型: no me gusta nada /odio...<br>利用句型問答同學 |
|         | 五                                                                                                                                      | 活動的頻率   | 頻率副詞句型:¿Con qué frecuencia haces estas actividades?                                             |
|         | 六                                                                                                                                      | 城市描繪    | 描述你的城市 ¿ cómo es y qué hay en ellas?<br>城市/建築相關詞彙<br>Hay用法複習.<br>描述台灣、西班牙、拉丁美洲不同城市              |
|         | 七                                                                                                                                      | 文化饗宴    | 欣賞西班牙/拉丁美洲的城市風貌                                                                                 |
|         | 八                                                                                                                                      | 生活機能    | 建築設施/市民服務/商店等相關詞彙<br>每位學生描述理想中的居家生活機能圈                                                          |
|         | 九                                                                                                                                      | 邀約他人    | 句型:querer + infinitivo<br>邀請同學參加某活動<br>分組活動:3人一組，設計出一有趣的活動，並邀請其他同學共襄盛舉                          |
|         | 十                                                                                                                                      | 接受/婉拒邀約 | 接受/婉拒邀約說法<br>句型:poder + infinitivo                                                              |
|         | 十一                                                                                                                                     | 應盡義務    | 句型:Tengo que/debo que<br>解釋不能從事某事的原因<br>表達規避從事某事的藉口                                             |

|       |                                      |              |                                                               |
|-------|--------------------------------------|--------------|---------------------------------------------------------------|
|       | 十二                                   | 指路篇          | 命令祈使句<br>疑問句型:¿ cómo llegar a un sitio?<br>指路問與答，藉由地圖，為同學口頭指路 |
|       | 十三                                   | 衣物篇I         | 衣物配件相關詞彙1<br>動詞:llevar<br>轉述自己身上的穿戴配飾<br>描述至少3為同學身上的穿戴配飾      |
|       | 十四                                   | 衣物篇II + 文化饗宴 | 貼身衣著、夏/冬季衣物相關詞彙<br>西班牙跨年文化、習俗                                 |
|       | 十五                                   | 總複習          | 第1~14週學習內容總複習                                                 |
|       | 十六                                   | 海報製作I: 西語系國家 | 擇一西語系國家介紹其地理歷史、習俗、美食等                                         |
|       | 十七                                   | 海報製作II:      | 完成西語系國家介紹(地理歷史、習俗、美食等)                                        |
|       | 十八                                   | 成果發表         | 各組海報賞析/再見歡                                                    |
|       | 十九                                   |              |                                                               |
|       | 二十                                   |              |                                                               |
|       | 二十一                                  |              |                                                               |
|       | 二十二                                  |              |                                                               |
| 學習評量: | 課堂互動與實作25%、回家作業25%、隨堂評量25%、小組期末報告25% |              |                                                               |
| 備註:   |                                      |              |                                                               |

|         |                                                                                                                             |                   |
|---------|-----------------------------------------------------------------------------------------------------------------------------|-------------------|
| 課程名稱：   | 中文名稱：走遊世界(上)                                                                                                                |                   |
|         | 英文名稱：Introduction to Tourism Geography                                                                                      |                   |
| 授課年段：   | 二上                                                                                                                          | 學分總數：2            |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                 |                   |
| 議題融入：   | 環境、家庭教育、生涯規劃、多元文化、戶外教育、國際教育                                                                                                 |                   |
| 師資來源：   | 校內跨科協同                                                                                                                      |                   |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                               |                   |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                            |                   |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                               |                   |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。3.個性完善：愛心熱誠、誠信正直、自律自省。4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 |                   |
| 學習目標：   | 1.學生能說明觀光地理(Tourism Geography)的意義。<br>2.學生能使用app收集、規劃旅遊行程。<br>3.學生可以透過影像分享,及欣賞他人成果。<br>4.學生能參與小組討論，並完成國際旅遊規劃。               |                   |
| 教學大綱：   | 週次/序                                                                                                                        | 單元/主題             |
|         | 一                                                                                                                           | 年輕不要留白:走遊世界       |
|         | 二                                                                                                                           | 旅行 DIY            |
|         | 三                                                                                                                           | 輕鬆自由行～資料收集篇       |
|         | 四                                                                                                                           | 輕鬆自由行～行程規劃篇       |
|         | 五                                                                                                                           | 輕鬆自由行～交通規劃篇       |
|         | 六                                                                                                                           | 我的旅行計畫(國內篇)       |
|         | 七                                                                                                                           | be a backpacker   |
|         | 八                                                                                                                           | Accommodation     |
|         | 九                                                                                                                           | 它抓的住我(1)          |
|         | 十                                                                                                                           | 它抓的住我(2)          |
|         | 十一                                                                                                                          | Ecotourism        |
|         | 十二                                                                                                                          | Working holiday   |
|         | 十三                                                                                                                          | 今天要飛哪?            |
|         | 十四                                                                                                                          | 今晚我想點……美食地理       |
|         | 十五                                                                                                                          | 出入境大魔王:護照簽證       |
|         | 十六                                                                                                                          | 五星享受三星價格:旅館的比價與預定 |
|         | 十七                                                                                                                          | 旅行百寶箱             |
|         | 十八                                                                                                                          | 我的旅行計畫(國外篇)       |
|         | 十九                                                                                                                          |                   |
|         | 二十                                                                                                                          |                   |
|         | 二十一                                                                                                                         |                   |
|         | 二十二                                                                                                                         |                   |
| 學習評量：   | 1. APP操作25%。<br>2. 影像記錄25%。<br>3. 學習單25%。<br>4. 國外旅遊規劃表25%。                                                                 |                   |

備註：

【備 查 版】

【備 查 版】



|         |                                                                                                                                                                                                       |                         |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| 課程名稱：   | 中文名稱：法語3                                                                                                                                                                                              |                         |
|         | 英文名稱：French 3                                                                                                                                                                                         |                         |
| 授課年段：   | 二上                                                                                                                                                                                                    | 學分總數：2                  |
| 課程屬性：   | 第二外國語文                                                                                                                                                                                                |                         |
| 議題融入：   | 多元文化、國際教育                                                                                                                                                                                             |                         |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                |                         |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                                                                   |                         |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                   |                         |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                   |                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                |                         |
| 學習目標：   | 1. 基本生活對話，同時透過法語世界的文化介紹豐富學生的視野。<br>2. 提升學生接觸法國文化的機會，培養學生理解與欣賞多元文化的能力。<br>3. 培養學生將課程中學到的句型，靈活應用於日常對話中的能力。<br>4. 建立基本日常生活單字及句型，如：問路、請教、美食、在餐廳、在郵局、敘述、旅行、住宿、理髮廳、美容院、大眾運輸交通工具、在海關、購物。<br>5. 習得約450字的法語字彙。 |                         |
| 教學大綱：   | 週次/<br>序                                                                                                                                                                                              | 單元/主題                   |
|         | 一                                                                                                                                                                                                     | New semester warm up    |
|         | 二                                                                                                                                                                                                     | Grammar I               |
|         | 三                                                                                                                                                                                                     | Functional language I   |
|         | 四                                                                                                                                                                                                     | Grammar II              |
|         | 五                                                                                                                                                                                                     | Functional language II  |
|         | 六                                                                                                                                                                                                     | Grammar III             |
|         | 七                                                                                                                                                                                                     | Semester Project I      |
|         | 八                                                                                                                                                                                                     | Semester Project II     |
|         | 九                                                                                                                                                                                                     | Review                  |
|         | 十                                                                                                                                                                                                     | French Culture I        |
|         | 十一                                                                                                                                                                                                    | Functional language III |
|         | 十二                                                                                                                                                                                                    | Grammar IV              |
|         | 十三                                                                                                                                                                                                    | Functional language IV  |
|         | 十四                                                                                                                                                                                                    | Grammar V               |
|         | 十五                                                                                                                                                                                                    | Functional language V   |
|         | 十六                                                                                                                                                                                                    | Semester Project III    |
|         | 十七                                                                                                                                                                                                    | Project                 |
|         | 十八                                                                                                                                                                                                    | French Culture II       |
|         | 十九                                                                                                                                                                                                    |                         |
|         | 二十                                                                                                                                                                                                    |                         |
|         | 二十一                                                                                                                                                                                                   |                         |
|         | 二十二                                                                                                                                                                                                   |                         |
| 學習評量：   | 課堂互動 30 %、課堂實作 20 %、小組合作 30 %、作品產出20%                                                                                                                                                                 |                         |

【備 查 版】

【備 查 版】

|         |                                                                                           |                                           |
|---------|-------------------------------------------------------------------------------------------|-------------------------------------------|
| 課程名稱：   | 中文名稱：物理辯論                                                                                 |                                           |
|         | 英文名稱：Taiwan Young-Student Physicists' Tournament                                          |                                           |
| 授課年段：   | 二上                                                                                        | 學分總數：2                                    |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                               |                                           |
| 議題融入：   | 科技、資訊                                                                                     |                                           |
| 師資來源：   | 校內單科                                                                                      |                                           |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                          |                                           |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                          |                                           |
|         | C社會參與：C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                          |                                           |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。， |                                           |
| 學習目標：   | 1. 能夠精確測量物理量<br>2. 能夠架設實驗裝置<br>3. 能夠自行設計實驗裝置<br>4. 培養完成科學報告的能力<br>5. 培養自主紀錄實驗過程的習慣        |                                           |
| 教學大綱：   | 週次/序                                                                                      | 單元/主題                                     |
|         | 一                                                                                         | 課程目標建立                                    |
|         | 二                                                                                         | 認識賽題                                      |
|         | 三                                                                                         | 文獻閱讀                                      |
|         | 四                                                                                         | 實驗架設(一)                                   |
|         | 五                                                                                         | 實驗架設(二)                                   |
|         | 六                                                                                         | 實驗架設(三)                                   |
|         | 七                                                                                         | 實驗數據量測(一)                                 |
|         | 八                                                                                         | 實驗數據量測(二)                                 |
|         | 九                                                                                         | 實驗數據量測(三)                                 |
|         | 十                                                                                         | 數據處理(一)                                   |
|         | 十一                                                                                        | 數據處理(二)                                   |
|         | 十二                                                                                        | 進度報告                                      |
|         | 十三                                                                                        | 競賽投影片製作(一)                                |
|         | 十四                                                                                        | 競賽投影片製作(二)                                |
|         | 十五                                                                                        | 模擬賽(一)                                    |
|         | 十六                                                                                        | 模擬賽(二)                                    |
|         | 十七                                                                                        | 期末書面報告(一)                                 |
|         |                                                                                           | 內容綱要                                      |
|         |                                                                                           | 透過網路搜索往年競賽過程與選手心得，學生自己建立課程結束後應具備的能力與態度。   |
|         |                                                                                           | 了解當屆物理辯論競賽的主題，並透過試做，確定研究主題。               |
|         |                                                                                           | 尋找相關文獻，包含：現象演示、現象的原理與解釋<br>製作文獻閱讀後的說明PPT。 |
|         |                                                                                           | 架設實驗裝置並觀察現象。<br>確認實驗現象的關鍵操縱變因。            |
|         |                                                                                           | 改變實驗裝置中的物理量，並觀察該物理量對現象的影響。                |
|         |                                                                                           | 改進實驗裝置，確認可以固定變因，並可量取應變變因。<br>製作實驗架設說明PPT。 |
|         |                                                                                           | 改變操縱變因，並量取應變變因。                           |
|         |                                                                                           | 改變操縱變因，並量取應變變因。                           |
|         |                                                                                           | 改變操縱變因，並量取應變變因。                           |
|         |                                                                                           | 找尋操縱變因與應變變因間的關係，利用曲線擬合表現出兩者間的數值關係。        |
|         |                                                                                           | 利用物理解釋數據間的相關性。                            |
|         |                                                                                           | 將實驗進度進行總結並發表。                             |
|         |                                                                                           | 將實驗的主題、原理、裝置與結果等做成競賽投影片。                  |
|         |                                                                                           | 將實驗的主題、原理、裝置與結果等做成競賽投影片。                  |
|         |                                                                                           | 將隊伍比照物理辯論競賽規則分組，並進行模擬賽。                   |
|         |                                                                                           | 將隊伍比照物理辯論競賽規則分組，並進行模擬賽。                   |
|         |                                                                                           | 將實驗主題、原理、裝置、結果與模擬賽中其他組的提問統整，製作成科學報告。      |

|       |                                                           |           |                                      |
|-------|-----------------------------------------------------------|-----------|--------------------------------------|
|       | 十八                                                        | 期末書面報告(二) | 將實驗主題、原理、裝置、結果與模擬賽中其他組的提問統整，製作成科學報告。 |
|       | 十九                                                        |           |                                      |
|       | 二十                                                        |           |                                      |
|       | 二十一                                                       |           |                                      |
|       | 二十二                                                       |           |                                      |
| 學習評量： | 1. 每週進度完成度20%<br>2. 實驗筆記40%<br>3. 進度報告20%<br>4. 期末書面報告20% |           |                                      |
| 備註：   |                                                           |           |                                      |

|         |                                                                                                          |           |
|---------|----------------------------------------------------------------------------------------------------------|-----------|
| 課程名稱：   | 中文名稱：物理辯論(上)                                                                                             |           |
|         | 英文名稱：Debates in Physics                                                                                  |           |
| 授課年段：   | 二上                                                                                                       | 學分總數：2    |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                              |           |
| 議題融入：   | 科技、資訊、閱讀素養                                                                                               |           |
| 師資來源：   | 外聘(其他)                                                                                                   |           |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                         |           |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                         |           |
|         | C社會參與：C2.人際關係與團隊合作，                                                                                      |           |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |           |
| 學習目標：   | 1. 能夠精確測量物理量<br>2. 能夠架設實驗裝置<br>3. 能夠自行設計實驗裝置<br>4. 培養完成科學報告的能力<br>5. 培養自主紀錄實驗過程的習慣                       |           |
| 教學大綱：   | 週次/序                                                                                                     | 單元/主題     |
|         | 一                                                                                                        | 文獻閱讀(一)   |
|         | 二                                                                                                        | 實驗架設(一)   |
|         | 三                                                                                                        | 實驗架設(二)   |
|         | 四                                                                                                        | 實驗架設(三)   |
|         | 五                                                                                                        | 實驗數據量測(一) |
|         | 六                                                                                                        | 實驗數據量測(二) |
|         | 七                                                                                                        | 實驗數據量測(三) |
|         | 八                                                                                                        | 數據處理(一)   |
|         | 九                                                                                                        | 文獻閱讀(二)   |
|         | 十                                                                                                        | 文獻閱讀(三)   |
|         | 十一                                                                                                       | 實驗架設(四)   |
|         | 十二                                                                                                       | 實驗架設(五)   |
|         | 十三                                                                                                       | 實驗架設(六)   |
|         | 十四                                                                                                       | 實驗數據量測(四) |
|         | 十五                                                                                                       | 實驗數據量測(五) |
|         | 內容綱要                                                                                                     |           |
|         | 確立主題後，選擇一題尋找相關文獻，包含：現象演示、現象的原理與解釋<br>製作文獻閱讀後的說明PPT                                                       |           |
|         | 從文獻閱讀中，選擇一篇並重現實驗。<br>架設實驗裝置並觀察現象。                                                                        |           |
|         | 架設實驗裝置並觀察現象。<br>改變實驗裝置中的物理量，並觀察該物理量對現象的影響。                                                               |           |
|         | 確認實驗現象的關鍵操縱變因。<br>改進實驗裝置，確認可以固定變因，並可量取應變變因。<br>製作實驗架設說明PPT。                                              |           |
|         | 改變操縱變因，並量取應變變因。                                                                                          |           |
|         | 改變操縱變因，並量取應變變因。                                                                                          |           |
|         | 改變操縱變因，並量取應變變因。                                                                                          |           |
|         | 找尋操縱變因與應變變因間的關係，利用曲線擬合表現出兩者間的數值關係。                                                                       |           |
|         | 尋找文獻，解釋變因間的數值關係與物理的關聯性。                                                                                  |           |
|         | 選擇另一題尋找相關文獻，包含：現象演示、現象的原理與解釋<br>製作文獻閱讀後的說明PPT                                                            |           |
|         | 從文獻閱讀中，選擇一篇並重現實驗。<br>架設實驗裝置並觀察現象。                                                                        |           |
|         | 架設實驗裝置並觀察現象。<br>改變實驗裝置中的物理量，並觀察該物理量對現象的影響。                                                               |           |
|         | 確認實驗現象的關鍵操縱變因。<br>改進實驗裝置，確認可以固定變因，並可量取應變變因。<br>製作實驗架設說明PPT。                                              |           |
|         | 改變操縱變因，並量取應變變因。                                                                                          |           |
|         | 改變操縱變因，並量取應變變因。                                                                                          |           |

|       |                                              |           |                                    |
|-------|----------------------------------------------|-----------|------------------------------------|
|       | 十六                                           | 實驗數據量測(六) | 改變操縱變因，並量取應變變因。                    |
|       | 十七                                           | 數據處理(二)   | 找尋操縱變因與應變變因間的關係，利用曲線擬合表現出兩者間的數值關係。 |
|       | 十八                                           | 文獻閱讀(四)   | 尋找文獻，解釋變因間的數值關係與物理的關聯性。            |
|       | 十九                                           |           |                                    |
|       | 二十                                           |           |                                    |
|       | 二十一                                          |           |                                    |
|       | 二十二                                          |           |                                    |
| 學習評量： | 1. 課堂報告投影片40%<br>2. 每周進度完成度20%<br>3. 實驗筆記40% |           |                                    |
| 備註：   |                                              |           |                                    |

【備查版】

【備查版】

|         |                                                                                            |          |
|---------|--------------------------------------------------------------------------------------------|----------|
| 課程名稱：   | 中文名稱： 英文新聞臺(上)                                                                             |          |
|         | 英文名稱： Our Times News Channel                                                               |          |
| 授課年段：   | 二上                                                                                         | 學分總數： 2  |
| 課程屬性：   | 跨領域/科目專題                                                                                   |          |
| 議題融入：   | 資訊、閱讀素養                                                                                    |          |
| 師資來源：   | 校內跨科協同                                                                                     |          |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                         |          |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                         |          |
|         | C社會參與： C2.人際關係與團隊合作,                                                                       |          |
| 學生圖像：   | 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。,                                                          |          |
| 學習目標：   | 1.著重於新聞影片播報(預錄)的認識、規劃、撰寫、拍攝與宣傳。<br>2.認識新聞及寫作倫理。<br>3.關心認識校園、在地與國際議題。<br>4.產出靜心雜誌與靜心英語新聞影片。 |          |
| 教學大綱：   | 週次/序                                                                                       | 單元/主題    |
|         | 一                                                                                          | 新聞概述     |
|         | 二                                                                                          | 新聞倫理     |
|         | 三                                                                                          | 訪談與探究    |
|         | 四                                                                                          | 新聞閱讀與寫作  |
|         | 五                                                                                          | 新聞閱讀與寫作  |
|         | 六                                                                                          | 新聞室的團隊合作 |
|         | 七                                                                                          | 視覺媒體     |
|         | 八                                                                                          | 科技與新聞    |
|         | 九                                                                                          | 科技與新聞    |
|         | 十                                                                                          | 硬新聞      |
|         | 十一                                                                                         | 硬新聞      |
|         | 十二                                                                                         | 軟新聞      |
|         | 十三                                                                                         | 觀點新聞     |
|         | 十四                                                                                         | 期末企劃     |
|         | 十五                                                                                         | 期末企劃     |
|         | 十六                                                                                         | 期末企劃     |
|         | 十七                                                                                         | 期末成果     |
|         | 十八                                                                                         | 期末省思     |
|         | 十九                                                                                         |          |
|         | 二十                                                                                         |          |
|         | 二十一                                                                                        |          |
|         | 二十二                                                                                        |          |
| 學習評量：   | 課堂互動、課堂實作、小組合作、專題規劃、新聞作品產出、<br>新聞作品印製播放<br>新聞撰寫 30% 影片錄製 30% 直播表現 20% 與程度 20%              |          |
| 備註：     |                                                                                            |          |



|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                             |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：財務金融入門                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                             |
|         | 英文名稱：Financial Marketing Management                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                             |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                     | 學分總數：3                                                                                                                                                                                      |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                             |
| 議題融入：   | 科技、資訊                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                             |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                             |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                             |
|         | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                             |
|         | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                             |
| 學習目標：   | The objective of this course is to train students to be familiar with the concepts and practical operations of financial commodity marketing and financial marketing ethics, and to train students to understand the market profiles of various financial commodities and corresponding commodity marketing strategies, including: securities market, bond market, options Markets, public offering markets, private equity markets, etc. |                                                                                                                                                                                             |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                                                       |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 01: Financial Marketing Concepts                                                                                                                                                       |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 02: Ethics in Financial Marketing                                                                                                                                                      |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 03: Market Information                                                                                                                                                                 |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 04: Marketing Research                                                                                                                                                                 |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 05: Introduction to Financial Products (Part One)                                                                                                                                      |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 06: Introduction to Financial Products (Part Two)                                                                                                                                      |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 07: Case Discussions                                                                                                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | 內容綱要                                                                                                                                                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Understand the foundational principles and key concepts of financial marketing. Analyze the role of financial marketing in the broader context of the financial industry.                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Explore ethical considerations and dilemmas specific to financial marketing. Develop an awareness of the importance of ethical behavior in building trust with clients and stakeholders.    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Learn methods for gathering and interpreting market information relevant to financial marketing. Apply market information to identify opportunities and challenges in the financial market. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Acquire knowledge of various marketing research methods and tools. Demonstrate the ability to design and conduct marketing research to inform strategic decision-making.                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Understand the characteristics and features of different financial products. Evaluate the suitability of various financial products for different investor needs and risk profiles.         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Deepen knowledge of a broader range of financial products and their market dynamics. Discuss the role of financial products in constructing a diversified investment portfolio.             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Apply theoretical knowledge to real-world scenarios through case discussions. Enhance problem-solving skills by analyzing                                                                   |

|       |     |                                                          |                                                                                                                                                                                                                 |
|-------|-----|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |     |                                                          | g and discussing financial marketing challenges presented in cases.                                                                                                                                             |
|       | 八   | Unit 08: Case Discussions                                | Continue honing problem-solving skills through the analysis of complex financial marketing cases.<br>Foster critical thinking by evaluating different perspectives and potential solutions in case discussions. |
|       | 九   | Unit 09: Midterm Exam                                    | Demonstrate comprehension of key concepts covered in the course so far.<br>Apply theoretical knowledge to practical scenarios through midterm exam questions.                                                   |
|       | 十   | Unit 10: Financial Marketing Communication               | Explore effective communication strategies in the context of financial marketing.<br>Develop skills to communicate complex financial concepts in a clear and accessible manner.                                 |
|       | 十一  | Unit 11: Emerging Channels in Financial Marketing        | Identify and analyze emerging channels for financial marketing.<br>Assess the opportunities and challenges associated with utilizing new channels in the financial industry.                                    |
|       | 十二  | Unit 12: Consumer Buying Patterns                        | Examine the factors influencing consumer buying patterns in the financial sector.<br>Apply knowledge of consumer behavior to tailor marketing strategies to specific target audiences.                          |
|       | 十三  | Unit 13: Post-Purchase Behavior of Consumers             | Analyze the post-purchase behavior of consumers in the financial industry.<br>Explore strategies to enhance customer satisfaction and loyalty in the post-purchase phase.                                       |
|       | 十四  | Unit 14: Introduction to Financial Products (Part Three) | Extend understanding of additional financial products and their unique characteristics.<br>Evaluate the market positioning and potential applications of these financial products.                              |
|       | 十五  | Unit 15: Introduction to Financial Products (Part Four)  | Explore advanced financial products and their specialized uses.<br>Assess the risk and return profiles of these products for strategic financial planning.                                                      |
|       | 十六  | Unit 16: Case Discussions                                | Apply cumulative knowledge to complex financial marketing cases.<br>Synthesize insights gained throughout the course in the final round of case discussions.                                                    |
|       | 十七  | Final Project                                            | Presentation & Feedback                                                                                                                                                                                         |
|       | 十八  | Wrap up                                                  | Questions and Discussions                                                                                                                                                                                       |
|       | 十九  |                                                          |                                                                                                                                                                                                                 |
|       | 二十  |                                                          |                                                                                                                                                                                                                 |
|       | 二十一 |                                                          |                                                                                                                                                                                                                 |
|       | 二十二 |                                                          |                                                                                                                                                                                                                 |
| 學習評量： |     |                                                          | 40% 課堂參與討論、30% 回家作業、30% 專題報告                                                                                                                                                                                    |

【備查版】

【備查版】

|             |                                                                                                                                                                                                                                                                                     |                                    |                                                                  |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 財務會計原則(上)                                                                                                                                                                                                                                                                     |                                    |                                                                  |
|             | 英文名稱： Financial Accounting Principles I                                                                                                                                                                                                                                             |                                    |                                                                  |
| 授課年段：       | 二上、三上                                                                                                                                                                                                                                                                               | 學分總數： 3                            |                                                                  |
| 課程屬性：       | 職涯試探                                                                                                                                                                                                                                                                                |                                    |                                                                  |
| 議題融入：       | 生涯規劃                                                                                                                                                                                                                                                                                |                                    |                                                                  |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                              |                                    |                                                                  |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                                                                                |                                    |                                                                  |
|             | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                  |                                    |                                                                  |
|             | C社會參與： C1.道德實踐與公民意識,                                                                                                                                                                                                                                                                |                                    |                                                                  |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 ,                                                                                                                                                                                                               |                                    |                                                                  |
| 學習目標：       | Demonstrate an understanding of accounting principles and practices.<br>Demonstrate an understanding of the accounting cycle in a computerized environment for a service business and a merchandising business.<br>Demonstrate an understanding of ethics and issues in accounting. |                                    |                                                                  |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                            | 單元/主題                              | 內容綱要                                                             |
|             | 一                                                                                                                                                                                                                                                                                   | Introduction                       | Introduction to Financial Accounting and review course syllabus. |
|             | 二                                                                                                                                                                                                                                                                                   | The accounting cycle               | Accounting fundamentals, principles, and practices.              |
|             | 三                                                                                                                                                                                                                                                                                   | The accounting cycle               | Accounting fundamentals, principles, and practices.              |
|             | 四                                                                                                                                                                                                                                                                                   | The accounting cycle               | The accounting cycle.                                            |
|             | 五                                                                                                                                                                                                                                                                                   | Ethics and computerized accounting | Ethical issues in accounting.                                    |
|             | 六                                                                                                                                                                                                                                                                                   | Ethics and computerized accounting | Accounting in a computerized environment.                        |
|             | 七                                                                                                                                                                                                                                                                                   | Ethics and computerized accounting | Short-term assets.                                               |
|             | 八                                                                                                                                                                                                                                                                                   | Ethics and computerized accounting | Short-term assets.                                               |
|             | 九                                                                                                                                                                                                                                                                                   | Accounting for assets - Part A     | Inventory process.                                               |
|             | 十                                                                                                                                                                                                                                                                                   | Accounting for assets - Part A     | Inventory process.                                               |
|             | 十一                                                                                                                                                                                                                                                                                  | Accounting for assets - Part A     | Internal control                                                 |
|             | 十二                                                                                                                                                                                                                                                                                  | Accounting for assets - Part A     | Internal control                                                 |
|             | 十三                                                                                                                                                                                                                                                                                  | Accounting for assets - Part A     | Capital asset accounting.                                        |
|             | 十四                                                                                                                                                                                                                                                                                  | Accounting for assets - Part A     | Capital asset accounting.                                        |
|             | 十五                                                                                                                                                                                                                                                                                  | Accounting for assets - Part B     | Amortization.                                                    |
|             | 十六                                                                                                                                                                                                                                                                                  | Accounting for assets - Part B     | Amortization.                                                    |
|             | 十七                                                                                                                                                                                                                                                                                  | Accounting for assets - Part B     | A closer look at amortization.                                   |
|             | 十八                                                                                                                                                                                                                                                                                  | Course Review                      | General review all course materials this semester.               |
|             | 十九                                                                                                                                                                                                                                                                                  |                                    |                                                                  |
|             | 二十                                                                                                                                                                                                                                                                                  |                                    |                                                                  |
|             | 二十一                                                                                                                                                                                                                                                                                 |                                    |                                                                  |
| 二十二         |                                                                                                                                                                                                                                                                                     |                                    |                                                                  |

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| 學習評量： | 課堂互動(15%)<br>作業(70%)<br>專題報告(15%) |
| 備註：   | 全英語授課                             |

【備查版】

【備查版】

|         |                                                                                                                                                                                                                                                                    |                            |
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| 課程名稱：   | 中文名稱：財經法律理論與實務                                                                                                                                                                                                                                                     |                            |
|         | 英文名稱：Financial and Economic Law：Theory and practice                                                                                                                                                                                                                |                            |
| 授課年段：   | 二上                                                                                                                                                                                                                                                                 | 學分總數：2                     |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                               |                            |
| 議題融入：   | 人權、環境、科技、資訊、家庭教育、閱讀素養、國際教育                                                                                                                                                                                                                                         |                            |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                             |                            |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                      |                            |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                                   |                            |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                      |                            |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                           |                            |
| 學習目標：   | <p>因應π型人才的跨域人才需求趨勢，結合「財經商學」與「法律學」雙領域的二大學群，開設本選修課程。除基礎法學，並從金融法（如銀行法、證券交易法、期貨交易法等）、財經法（如商業會計法、財稅法等）等財經學群角度切入，以建立商學及財經法學之基本素養。</p> <p>此外，為使學習更貼近實務現場需求、兼顧財法發展趨勢，本課程邀請校外相關專家學者共同規劃本金融法律選修課程，將實務需求導入課程之中，融合理論與實務，引導學生初探金融法律的知識學海、探討相關實務議題（如壟斷併購、風險管理等），進而涵養其財經法律素養。</p> |                            |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                               | 單元/主題                      |
|         | 一                                                                                                                                                                                                                                                                  | 課程說明與介紹                    |
|         | 二                                                                                                                                                                                                                                                                  | 導論：當法律與財經相遇                |
|         | 三                                                                                                                                                                                                                                                                  | 經濟學與法律的對話(一)：神明來卜卦，事先早知道！？ |
|         | 四                                                                                                                                                                                                                                                                  | 經濟學與法律的對話(二)：市場與價格         |
|         | 五                                                                                                                                                                                                                                                                  | 經濟學與法律的對話(三)：賽局理論          |
|         | 六                                                                                                                                                                                                                                                                  | 課程小節與回顧                    |
|         | 七                                                                                                                                                                                                                                                                  | 實務探討(一)：做生意為什麼要設立公司？       |
|         | 八                                                                                                                                                                                                                                                                  | 實務探討(二)：商業契約實務             |
|         | 九                                                                                                                                                                                                                                                                  | 實務探討(三)：證券交易法及保險法          |
|         |                                                                                                                                                                                                                                                                    |                            |

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|       | 十   | 實務探討(四)：銀行架構與業務介紹                                                                     | *何謂商業銀行/投資銀行/特種銀行<br>*消費金融/公司理財/私人銀行(財富管理)<br>【核定版】<br>【核定版】<br>*台灣銀行產業介紹<br>*其他金融產業介紹-基金公司, 券商, 保險公司與信託業務, 信用卡, SWIFT, 外幣存款與國際匯款 |
|       | 十一  | 課程小節與回顧                                                                               | 運用四象限思考法進行主題統整與小結, 並促發學生反思及聽見多元立場的聲音。                                                                                             |
|       | 十二  | 理論與實務的結合(一)：財經法律學趣味                                                                   | *從知名美式賣場會員制度探討彈性、所得效果與替代效果、消費者剩餘及生產者剩餘等經濟學原理                                                                                      |
|       | 十三  | 理論與實務的結合(二)：金融投資投資市場的介紹                                                               | *股票市場、債券市場、外匯市場<br>*Bloomberg/Reuters                                                                                             |
|       | 十四  | 理論與實務的結合(三)：金融投資實務                                                                    | *淺談避險操作<br>*實際報價學習<br>*避險觀念介紹<br>*Case Study- LTCM                                                                                |
|       | 十五  | 課程小節與回顧                                                                               | 運用四象限思考法進行主題統整與小結, 並促發學生反思及聽見多元立場的聲音。                                                                                             |
|       | 十六  | 小組報告                                                                                  | 分組專題探究報告, 並進行組內互評與回饋、個人自評、師生回饋。                                                                                                   |
|       | 十七  | 小組報告                                                                                  | 分組專題探究報告, 並進行組內互評與回饋、個人自評、師生回饋。                                                                                                   |
|       | 十八  | 課程總結與回顧                                                                               | 與同學討論本學期上課的心得感想、收穫與課程建議。                                                                                                          |
|       | 十九  |                                                                                       |                                                                                                                                   |
|       | 二十  |                                                                                       |                                                                                                                                   |
|       | 二十一 |                                                                                       |                                                                                                                                   |
|       | 二十二 |                                                                                       |                                                                                                                                   |
| 學習評量： |     | 紙筆測驗(20%)、google表單(含個人課堂學習單、小組任務單)(20%)、小組專題探究報告(40%)、小組評分表(含組內互評、組間回饋)(10%)、自評表(10%) |                                                                                                                                   |
| 備註：   |     | 對應學群：社會心理、大眾傳播、文史哲、教育、法政、財經                                                           |                                                                                                                                   |



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| 課程名稱：       | 中文名稱：國際議題探究I                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                        |
|             | 英文名稱：Global Issues I                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                        |
| 授課年段：       | 二上                                                                                                                                                                                                                                                                                                                                                            | 學分總數：1                                                                                                                                                                                                 |
| 課程屬性：       | 通識性課程                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                        |
| 議題融入：       | 國際教育                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                        |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                        |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                        |
|             | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                        |
|             | C社會參與：C1.道德實踐與公民意識，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                        |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                               |                                                                                                                                                                                                        |
| 學習目標：       | Global Issues embraces a multidisciplinary approach in understanding the increasingly complex questions confronting the world today. Understanding global problems is the initial stage towards conceiving globalized solutions. This course capitalizes and centers on the privileged position of the youth in their ability to passion a better generation. |                                                                                                                                                                                                        |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                                                                  |
|             | 一                                                                                                                                                                                                                                                                                                                                                             | Unit 1 Introduction to Global Issues<br>Issues involving the global commons                                                                                                                            |
|             | 二                                                                                                                                                                                                                                                                                                                                                             | Unit 1 Introduction to Global Issues<br>Issues requiring a global commitment:<br>What global concerns affect us?<br>What makes an issue a global concern?<br>What can we do to address these concerns? |
|             | 三                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Biodiversity and Ecosystem Losses<br>What is biodiversity and ecosystem losses?                                                                                                                 |
|             | 四                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Biodiversity and Ecosystem Losses<br>How rich is your country's biodiversity and ecosystem?                                                                                                     |
|             | 五                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Biodiversity and Ecosystem Losses<br>Should Taiwan become a trading hub?<br>How to find balance?                                                                                                |
|             | 六                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Deforestation<br>What is deforestation?                                                                                                                                                         |
|             | 七                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Deforestation<br>How are your countries preserving forests?<br>How should we balance land use?                                                                                                  |
|             | 八                                                                                                                                                                                                                                                                                                                                                             | Unit 4 Maritime Safety and Pollution<br>What is maritime safety and pollution?                                                                                                                         |
|             | 九                                                                                                                                                                                                                                                                                                                                                             | Unit 4 Maritime Safety and Pollution<br>What countries suffer from these issues?<br>Where does our concerns come from?                                                                                 |
|             | 十                                                                                                                                                                                                                                                                                                                                                             | Unit 4 Maritime Safety and Pollution<br>Understanding maritime safety and addressing pollution.                                                                                                        |
|             | 十一                                                                                                                                                                                                                                                                                                                                                            | Unit 5 Education for All<br>What is the essence of education?                                                                                                                                          |
|             | 十二                                                                                                                                                                                                                                                                                                                                                            | Unit 5 Education for All<br>What are the major reasons for illiteracy?                                                                                                                                 |
|             | 十三                                                                                                                                                                                                                                                                                                                                                            | Unit 5 Education for All<br>Who is responsible for education?                                                                                                                                          |
|             | 十四                                                                                                                                                                                                                                                                                                                                                            | Unit 6 Natural Disaster Prevention and Mitigation<br>Disaster Management                                                                                                                               |
|             | 十五                                                                                                                                                                                                                                                                                                                                                            | Unit 6 Natural Disaster Prevention and Mitigation<br>Why are we experiencing more natural disasters?                                                                                                   |
|             | 十六                                                                                                                                                                                                                                                                                                                                                            | Unit 6 Natural Disaster Prevention and Mitigation<br>What to do before, during, and after a disaster?                                                                                                  |
|             | 十七                                                                                                                                                                                                                                                                                                                                                            | Final Project<br>Presentation & Feedback                                                                                                                                                               |
|             | 十八                                                                                                                                                                                                                                                                                                                                                            | Wrap-Up<br>Reflections & Final Thoughts                                                                                                                                                                |

|       |                              |  |  |
|-------|------------------------------|--|--|
|       | 十九                           |  |  |
|       | 二十                           |  |  |
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英語授課                        |  |  |

【備查版】

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 媒體研究(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                   |
|             | 英文名稱： Media Studies I                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                   |
| 授課年段：       | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數： 3                                                                                           |
| 課程屬性：       | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                   |
| 議題融入：       | 科技、資訊                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                   |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                   |
| 課綱核心素<br>養： | A自主行動： A2. 系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                   |
|             | B溝通互動： B1. 符號運用與溝通表達, B2. 科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                   |
|             | C社會參與： C2. 人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                   |
| 學生圖像：       | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                               |                                                                                                   |
| 學習目標：       | This course emphasizes knowledge and skills that will enable you to understand media communication in the twenty-first century and to use media effectively and responsibly. Through analysing the forms and messages of a variety of media works and audience responses to them, and through creating your own media works, you will develop critical thinking skills, aesthetic and ethical judgement, and skills in viewing, representing, listening, speaking, reading, and writing. |                                                                                                   |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 單元/主題                                                                                             |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 : Investigating media representations<br>1.1 Representing reality                          |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 : Investigating media representations<br>1.2 Working with codes and conventions            |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 : Investigating media representations<br>1.3 Analyzing media texts                         |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 : Investigating media representations<br>1.4 Reproducing sounds and images                 |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 : Investigating media representations<br>1.5 Understanding media representations           |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 : Investigating media representations<br>1.6 Representing versions of reality              |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 : Investigating media representations<br>1.7 Is it fake                                    |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 : Investigating media representations<br>1.8 Exploring the self(ie)                        |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 Review<br>Question and Discussion                                                          |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 2 : Understanding audiences<br>2.1 Making connections between media and psychology           |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 : Understanding audiences<br>2.2 Exploring Media and Culture                               |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 : Understanding audiences<br>2.3 Negotiating meaning                                       |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 : Understanding audiences<br>2.4 Thinking outside the bubble                               |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 : Understanding audiences<br>2.5 Understanding rights and responsibilities                 |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 : Understanding audiences<br>2.6 Understanding polarization and the effect of social media |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 : Understanding audiences<br>2.7 Investigating political and social messages               |

|       |                              |                                  |                           |
|-------|------------------------------|----------------------------------|---------------------------|
|       | 十七                           | Unit 2 : Understanding audiences | 2.8 Understanding privacy |
|       | 十八                           | Wrap-up                          | Discussion and questions  |
|       | 十九                           |                                  |                           |
|       | 二十                           |                                  |                           |
|       | 二十一                          |                                  |                           |
|       | 二十二                          |                                  |                           |
|       |                              |                                  |                           |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                  |                           |
| 備註：   | 全英語報告                        |                                  |                           |

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|---------|------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------|
| 課程名稱：   | 中文名稱： 視覺與環境設計                                                                                                                      |                |                                         |
|         | 英文名稱： Environmental Visual Art                                                                                                     |                |                                         |
| 授課年段：   | 二上                                                                                                                                 |                | 學分總數： 2                                 |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                        |                |                                         |
| 議題融入：   | 多元文化                                                                                                                               |                |                                         |
| 師資來源：   | 校內單科                                                                                                                               |                |                                         |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進， A3.規劃執行與創新應變，                                                                                                 |                |                                         |
|         | B溝通互動： B1.符號運用與溝通表達， B3.藝術涵養與美感素養，                                                                                                 |                |                                         |
|         | C社會參與： C2.人際關係與團隊合作， C3.多元文化與國際理解，                                                                                                 |                |                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                |                                         |
| 學習目標：   |                                                                                                                                    |                |                                         |
| 教學大綱：   | 週次/序                                                                                                                               | 單元/主題          | 內容綱要                                    |
|         | 一                                                                                                                                  | 基本設計概論         | 設計的基礎內涵，藝術涵養的應用。                        |
|         | 二                                                                                                                                  | 生活觀察與紀錄設計企劃    | 從生活與社會，找出議題，理解視覺傳達的重要性，並練習設計企劃能力。       |
|         | 三                                                                                                                                  | 生活觀察與紀錄設計企劃    | 從生活與社會，找出議題，理解視覺傳達的重要性，並練習設計企劃能力。       |
|         | 四                                                                                                                                  | 視覺傳達基礎－海報與平面設計 | 平面設計之概念與架構，衍伸至其他平面相關設計，編輯。              |
|         | 五                                                                                                                                  | 視覺傳達基礎－海報與平面設計 | 平面設計之概念與架構，衍伸至其他平面相關設計，編輯。              |
|         | 六                                                                                                                                  | 視覺傳達基礎－海報設計    | 平面設計之概念與架構，衍伸至其他平面相關設計，編輯。              |
|         | 七                                                                                                                                  | 服裝、織品設計產業的養成   | 服裝設計潮流變化的認知，服裝設計與應用。                    |
|         | 八                                                                                                                                  | 服裝、織品設計產業的養成   | 舞台服裝的製作要領與常服之差異。                        |
|         | 九                                                                                                                                  | 服裝、織品設計產業的養成   | 時尚，年度色，服裝設計與陳列。                         |
|         | 十                                                                                                                                  | 工業設計的基本認識      | 工業設計，產品設計之基礎概念建構。                       |
|         | 十一                                                                                                                                 | 立體空間的構成        | 從2D到3D的衍伸，立體構圖與視覺平衡。                    |
|         | 十二                                                                                                                                 | 立體空間的構成        | 點與線的造型建構。                               |
|         | 十三                                                                                                                                 | 產品設計與實用性       | 從議題製作設計案，並理解產品設計與實用性的結合，銷售市場上視覺吸引力的重要性。 |
|         | 十四                                                                                                                                 | 產品設計與實用性       | 從議題製作設計案，並理解產品設計與實用性的結合，銷售市場上視覺吸引力的重要性。 |
|         | 十五                                                                                                                                 | 產品設計與實用性       | 從議題製作設計案，並理解產品設計與實用性的結合，銷售市場上視覺吸引力的重要性。 |
|         | 十六                                                                                                                                 | 都市設計與地景建築      | 生活與環境的探究，年齡結構與社區規劃，環境與空間設計之實務。          |
|         | 十七                                                                                                                                 | 都市設計與地景建築      | 生活與環境的探究，年齡結構與社區規劃，環境與空間設計之實務。          |
|         | 十八                                                                                                                                 | 都市設計與地景建築      | 生活與環境的探究，年齡結構與社區規劃，環境與空間設計之實務。          |
|         | 十九                                                                                                                                 |                |                                         |
|         | 二十                                                                                                                                 |                |                                         |
|         | 二十一                                                                                                                                |                |                                         |
|         | 二十二                                                                                                                                |                |                                         |

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| 學習評量： | 設計圖呈現與概念口頭報告30%<br>作品完整度與改念契合度50%<br>上課狀況10%<br>環境維護與整潔10% |
| 備註：   |                                                            |

【備查版】

【備查版】

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| 課程名稱：   | 中文名稱：視覺藝術(上)                                                                                                                                                                                                                                                                                                                                                                                                                               |                                              |
|         | 英文名稱：Visual Arts I                                                                                                                                                                                                                                                                                                                                                                                                                         |                                              |
| 授課年段：   | 二上                                                                                                                                                                                                                                                                                                                                                                                                                                         | 學分總數：3                                       |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                              |
| 議題融入：   | 科技、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                               |                                              |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                              |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |
|         | B溝通互動：B1.符號運用與溝通表達, B2.科技資訊與媒體素養, B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                            |                                              |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                     |                                              |
| 學習目標：   | This course enables you to further develop your knowledge and skills in visual arts. You will use the creative process to explore a wide range of themes through studio work that may include drawing, painting, sculpting, and printmaking, as well as the creation of collage, multimedia works, and works using emerging technologies. You will use the critical analysis process when evaluating your own work and the work of others. |                                              |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                        |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 How can I create a portrait?: Part A  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1 How can I create a portrait?: Part A  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 How can I create a portrait?: Part B  |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 How can I create a portrait?: Part B  |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 How can I create a portrait?: Part B  |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 How can I create a portrait?: Part B  |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2 How can I create a portrait?: Part B  |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 How can I work with color?: Part A    |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 How can I work with color?: Part A    |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 How can I work with color?: Part A    |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3 How can I work with color?: Part A    |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4 How can I work with color?: Part B    |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4 How can I work with color?: Part B    |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4 How can I work with color?: Part B    |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4 How can I work with color?: Part B    |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Project                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | 內容綱要                                         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 1: The elements and principles of art |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 2: How do you draw a portrait?        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 3: Techniques that add dimension      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 3: Techniques that add dimension      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 4: Where does inspiration come from?  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 5: The creative process               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 5: The creative process               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 6: Talking about color                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 6: Talking about color                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 7: What is cubism?                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 8: How to paint like a cubist         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 9: Presenting art                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 9: Presenting art                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 10: Analyzing art                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lesson 10: Analyzing art                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | Project Presentations & Discussions          |



|       |                              |               |                                     |
|-------|------------------------------|---------------|-------------------------------------|
|       | 十七                           | Final Project | Project Presentations & Discussions |
|       | 十八                           | Wrap-Up       | Reflections & Final Thoughts        |
|       | 十九                           |               |                                     |
|       | 二十                           |               |                                     |
|       | 二十一                          |               |                                     |
|       | 二十二                          |               |                                     |
|       |                              |               |                                     |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |               |                                     |
| 備註：   |                              |               |                                     |

【備查版】

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|             |                                                                                                                                            |                                                                                                                                                              |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 德語3                                                                                                                                  |                                                                                                                                                              |
|             | 英文名稱： German3                                                                                                                              |                                                                                                                                                              |
| 授課年段：       | 二上                                                                                                                                         | 學分總數： 2                                                                                                                                                      |
| 課程屬性：       | 第二外國語文                                                                                                                                     |                                                                                                                                                              |
| 議題融入：       | 多元文化、國際教育                                                                                                                                  |                                                                                                                                                              |
| 師資來源：       | 外聘(其他)                                                                                                                                     |                                                                                                                                                              |
| 課綱核心素<br>養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                      |                                                                                                                                                              |
|             | B溝通互動： B1. 符號運用與溝通表達, B3. 藝術涵養與美感素養,                                                                                                       |                                                                                                                                                              |
|             | C社會參與： C3. 多元文化與國際理解,                                                                                                                      |                                                                                                                                                              |
| 學生圖像：       | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                                                                                                              |
| 學習目標：       | 1. 複習德文發音規則。<br>2. 進階句型及語法概念介紹。<br>3. 複習日常生活表達，包含問候、自我介紹、數字、日常習慣等。<br>4. 德語國家文化認識。<br>5. 加強日常生活單字的練習，以擴展學生習得的單字量。                          |                                                                                                                                                              |
| 教學大綱：       | 週次/<br>序                                                                                                                                   | 單元/主題 內容綱要                                                                                                                                                   |
|             | 一                                                                                                                                          | Revision A1.2 lessons 10-12, writing exercise Bringing a postcard from summer break and writing about activities in German                                   |
|             | 二                                                                                                                                          | Lesson 13: train time tables and travelling by train                                                                                                         |
|             | 三                                                                                                                                          | Lesson 13: train time tables and travelling by train                                                                                                         |
|             | 四                                                                                                                                          | Lesson 14: clothes, presents and meeting spots                                                                                                               |
|             | 五                                                                                                                                          | Lesson 14: clothes, presents and meeting spots Creating a “fashion magazine” : presenting one’s favorite outfits and describing one’s favorite star          |
|             | 六                                                                                                                                          | Lesson 15: talking about past events, describing people Creating a “fashion magazine” : presenting one’s favorite outfits and describing one’s favorite star |
|             | 七                                                                                                                                          | Lesson 15: talking about past events, describing people                                                                                                      |
|             | 八                                                                                                                                          | Revision of lessons 10-15 Group work: creating mind maps on grammar & vocabulary topics covered in lessons 10-15                                             |
|             | 九                                                                                                                                          | Revision of lessons 10-15 Group work: creating mind maps on grammar & vocabulary topics covered in lessons 10-15                                             |
|             | 十                                                                                                                                          | Comprehensive Listening, Reading, Writing/Grammar and Speaking Exercises Strengthening skills of lessons 10-15                                               |
|             | 十一                                                                                                                                         | Lesson 16 apartments & houses, prepositions of time & frequency                                                                                              |
|             | 十二                                                                                                                                         | Lesson 16 apartments & houses, prepositions of time & frequency                                                                                              |
|             | 十三                                                                                                                                         | Lesson 17: travel destinations Creating a photo collage: students’ dream destination in a German-speaking country                                            |
|             | 十四                                                                                                                                         | Lesson 17: travel destinations Creating a photo collage: students’ dream destination in a German-speaking country                                            |
|             | 十五                                                                                                                                         | Revision of lessons 13-15 Review vocabulary and grammar                                                                                                      |
|             | 十六                                                                                                                                         | Revision of lessons 15-17 Review vocabulary and grammar                                                                                                      |

|       |     |                                                                          |                                                                          |
|-------|-----|--------------------------------------------------------------------------|--------------------------------------------------------------------------|
|       | 十七  | Comprehensive Listening, Reading, Writing/Grammar and Speaking Exercises | Strengthening skills of lessons 13-17                                    |
|       | 十八  | Feedback round                                                           | Discussing difficulties in the comprehensive exercises, semester wrap-up |
|       | 十九  |                                                                          |                                                                          |
|       | 二十  |                                                                          |                                                                          |
|       | 二十一 |                                                                          |                                                                          |
|       | 二十二 |                                                                          |                                                                          |
|       |     |                                                                          |                                                                          |
| 學習評量： |     | 課堂互動25%、課堂實作25%、小組合作25%、作品產出25%                                          |                                                                          |
| 備註：   |     |                                                                          |                                                                          |

【備查版】

|         |                                                                                                                                 |           |                      |
|---------|---------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------|
| 課程名稱：   | 中文名稱：數學建模(上)                                                                                                                    |           |                      |
|         | 英文名稱：Mathematical Modeling1                                                                                                     |           |                      |
| 授課年段：   | 二上                                                                                                                              |           | 學分總數：1               |
| 課程屬性：   | 跨領域/科目統整                                                                                                                        |           |                      |
| 議題融入：   | 性別平等、生命、法治、防災、多元文化、戶外教育                                                                                                         |           |                      |
| 師資來源：   | 校內單科                                                                                                                            |           |                      |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                   |           |                      |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                |           |                      |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                   |           |                      |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |           |                      |
| 學習目標：   | 根據實際問題建立數學模型，深入調查研究、了解對象訊息、簡化假設、分析、尋找規律，用數學符號及語言作為表述，進而解決實際問題。                                                                  |           |                      |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題     | 內容綱要                 |
|         | 一                                                                                                                               | 介紹數學建模    | 介紹數學建模及工具應用          |
|         | 二                                                                                                                               | 數學建模範例欣賞  | 舉例說明建模流程             |
|         | 三                                                                                                                               | 心智圖       | 以自我為中心繪製心智圖          |
|         | 四                                                                                                                               | 作品閱讀      | 得獎作品閱讀               |
|         | 五                                                                                                                               | 作品報告      | 建模文章分析、回饋            |
|         | 六                                                                                                                               | 作品報告      | 建模文章分析、回饋            |
|         | 七                                                                                                                               | 主題（一）研究   | 針對已知特定條件定義           |
|         | 八                                                                                                                               | 主題（一）研究   | 尋找所需資料來佐證            |
|         | 九                                                                                                                               | 主題（一）研究報告 | 報告、分析、回饋             |
|         | 十                                                                                                                               | 主題（二）研究   | 開放性主題式自定義條件          |
|         | 十一                                                                                                                              | 主題（二）研究   | 探索所需數據來源及應用          |
|         | 十二                                                                                                                              | 主題（二）研究報告 | 報告、分析、回饋             |
|         | 十三                                                                                                                              | 建構數學模型練習  | 利用實際問題讓學生自己建立數學模型    |
|         | 十四                                                                                                                              | 個人主題探索    | 個人研究報告：尋找主題          |
|         | 十五                                                                                                                              | 尋找所需資料佐證  | 個人研究報告：收集數據          |
|         | 十六                                                                                                                              | 建構數學模型    | 個人研究報告：方向調整          |
|         | 十七                                                                                                                              | 數學建模實際演練  | 針對真實問題進行建模並分析以找到解決方案 |
|         | 十八                                                                                                                              | 數學建模實際演練  | 針對真實問題進行建模並分析以找到解決方案 |
|         | 十九                                                                                                                              |           |                      |
|         | 二十                                                                                                                              |           |                      |
|         | 二十一                                                                                                                             |           |                      |
| 二十二     |                                                                                                                                 |           |                      |
| 學習評量：   | 學生學習回饋表15%<br>過程評量30%<br>同儕互評15%<br>成果報告40%                                                                                     |           |                      |
| 備註：     |                                                                                                                                 |           |                      |

|         |                                                                                                                                    |            |                               |
|---------|------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------|
| 課程名稱：   | 中文名稱： 機器人設計                                                                                                                        |            |                               |
|         | 英文名稱： Intelligent Robotics                                                                                                         |            |                               |
| 授課年段：   | 二上                                                                                                                                 | 學分總數： 2    |                               |
| 課程屬性：   | 專題探究                                                                                                                               |            |                               |
| 議題融入：   | 科技、資訊、能源                                                                                                                           |            |                               |
| 師資來源：   | 外聘(其他)                                                                                                                             |            |                               |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                   |            |                               |
|         | B溝通互動： B2.科技資訊與媒體素養, B3.藝術涵養與美感素養,                                                                                                 |            |                               |
|         | C社會參與： C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                 |            |                               |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |            |                               |
| 學習目標：   | 1.學習Vex VR線上系統<br>2.學習Vex IQ硬體製作<br>3.學習Vex IQ程式結合感測器，製作自動化機器人                                                                     |            |                               |
| 教學大綱：   | 週次/<br>序                                                                                                                           | 單元/主題      | 內容綱要                          |
|         | 一                                                                                                                                  | Vex機器人     | 機器人設備與應用介紹                    |
|         | 二                                                                                                                                  | Vex IQ軟體介紹 | 軟體介面介紹                        |
|         | 三                                                                                                                                  | Vex VR介紹   | 線上VR環境使用                      |
|         | 四                                                                                                                                  | Vex VR練習   | 線上模擬機器人直行，轉彎，距離判斷             |
|         | 五                                                                                                                                  | 二輪機器人      | 連結主機與馬達，建立2輪機器人               |
|         | 六                                                                                                                                  | 遙控機器人      | 撰寫遙控程式，控制2輪機器人                |
|         | 七                                                                                                                                  | 顏色判斷       | 使用光感器，使機器人辨別顏色進行轉向            |
|         | 八                                                                                                                                  | 顏色迷宮       | 光感器結合測距儀，使機器人自動行走特定路線         |
|         | 九                                                                                                                                  | 齒輪與鍊條      | 學習齒輪比造成的力量與速度變化，及齒輪鍊條在機器人上的應用 |
|         | 十                                                                                                                                  | 物品抓取       | 利用正確的齒輪比製作可夾住物品的機器人           |
|         | 十一                                                                                                                                 | 平行連桿       | 利用平行連桿製作可以水平抬起物品的機器人          |
|         | 十二                                                                                                                                 | 疊疊樂        | 結合程式製作可疊起多個物品的機器人             |
|         | 十三                                                                                                                                 | 視覺感測       | 學習Vex視覺感測器偵測物體的方法             |
|         | 十四                                                                                                                                 | 物品偵測       | 學習如何利用視覺感測器，讓機器人永遠面向某一物體      |
|         | 十五                                                                                                                                 | 足球機器人設計    | 學習如何在特定規則下，自行設計一個能追蹤並推球的機器人   |
|         | 十六                                                                                                                                 | 足球機器人硬體製作  | 將構想好的足球機器人組裝完成                |
|         | 十七                                                                                                                                 | 足球機器人測試    | 將各組製作的足球機器人進行班內測試與競賽          |
|         | 十八                                                                                                                                 | 課程報告撰寫     | 整理本學期的學習內容與照片，撰寫機器人的學習心得      |
|         | 十九                                                                                                                                 |            |                               |
|         | 二十                                                                                                                                 |            |                               |
|         | 二十一                                                                                                                                |            |                               |
| 二十二     |                                                                                                                                    |            |                               |
| 學習評量：   | 課程機器人評測：80%（VR模擬題目，顏色迷宮，疊疊樂，足球機器人共4項各佔20%）<br>期末報告10%<br>課堂表現10%                                                                   |            |                               |
| 備註：     |                                                                                                                                    |            |                               |

【備 查 版】

【備 查 版】

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                               |                                                         |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------|
| 課程名稱：   | 中文名稱： 觀光餐旅業導論(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                               |                                                         |
|         | 英文名稱： Hospitality and Tourism I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                               |                                                         |
| 授課年段：   | 二上、三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 學分總數： 3                                                       |                                                         |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                               |                                                         |
| 議題融入：   | 生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                               |                                                         |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                               |                                                         |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                               |                                                         |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                               |                                                         |
|         | C社會參與： C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                               |                                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                               |                                                         |
| 學習目標：   | This course enables you to develop or expand your knowledge and skills related to hospitality and tourism, as reflected in the various sectors of the tourism industry. You will learn about preparing and presenting food, evaluating facilities, controlling inventory, and marketing and managing events and activities, and will investigate customer service principles and the cultural and economic forces that drive tourism trends. You will develop an awareness of health and safety standards, environmental and societal issues, and career opportunities in the tourism industry. |                                                               |                                                         |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 單元/主題                                                         | 內容綱要                                                    |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 1 What is the hospitality and tourism industry? - Part A | Lesson 1: What industry sectors are there?              |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 1 What is the hospitality and tourism industry? - Part A | Lesson 1: What industry sectors are there?              |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 1 What is the hospitality and tourism industry? - Part A | Lesson 2: Career options in the hospitality industry    |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 1 What is the hospitality and tourism industry? - Part A | Lesson 2: Career options in the hospitality industry    |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 What is the hospitality and tourism industry? - Part B | Lesson 3: Is this the right career for me?              |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 What is the hospitality and tourism industry? - Part B | Lesson 4: How can I plan and sell a successful event?   |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 What is the hospitality and tourism industry? - Part B | Lesson 4: How can I plan and sell a successful event?   |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2 What is the hospitality and tourism industry? - Part B | Lesson 5: How can I manage the bottom line?             |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 3 How is the food industry made safe? - Part A           | Lesson 6: How can I keep myself out of harm's way?      |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 3 How is the food industry made safe? - Part A           | Lesson 7: How can I work more safely?                   |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 3 How is the food industry made safe? - Part A           | Lesson 8: What can I do to keep food safe?              |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 3 How is the food industry made safe? - Part A           | Lesson 8: What can I do to keep food safe?              |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 4 How is the food industry made safe? - Part B           | Lesson 9: Who is protecting commercial food production? |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 4 How is the food industry made safe? - Part B           | Lesson 9: Who is protecting commercial food production? |
| 十五      | Unit 4 How is the food industry made safe? - Part B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 10: What can I do if things go wrong?                  |                                                         |



|                                   |     |                                                     |                                              |
|-----------------------------------|-----|-----------------------------------------------------|----------------------------------------------|
|                                   | 十六  | Unit 4 How is the food industry made safe? – Part B | Lesson 10: What can I do if things go wrong? |
|                                   | 十七  | Final Project                                       | Project Presentations                        |
|                                   | 十八  | Wrap-Up                                             | Reflections and Final Thoughts               |
|                                   | 十九  |                                                     |                                              |
|                                   | 二十  |                                                     |                                              |
|                                   | 二十一 |                                                     |                                              |
|                                   | 二十二 |                                                     |                                              |
| 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |     |                                                     |                                              |
| 備註：                               |     |                                                     |                                              |

|         |                                                                                                                                 |                                    |
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| 課程名稱：   | 中文名稱：《史記》專題探究(下)                                                                                                                |                                    |
|         | 英文名稱：Analysis of "Records of the Grand Historian"                                                                               |                                    |
| 授課年段：   | 二下                                                                                                                              | 學分總數：2                             |
| 課程屬性：   | 專題探究                                                                                                                            |                                    |
| 議題融入：   | 品德、生命、生涯規劃、閱讀素養                                                                                                                 |                                    |
| 師資來源：   | 外聘(其他)                                                                                                                          |                                    |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                   |                                    |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                |                                    |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，                                                                                                |                                    |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                                    |
| 學習目標：   | 藉由前人經驗智慧，建立自我人格、智慧才識                                                                                                            |                                    |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題 內容綱要                         |
|         | 一                                                                                                                               | 運籌帷幄1 〈蘇秦列傳〉、〈廉頗藺相如列傳〉、〈魯仲連鄒陽列傳〉導讀 |
|         | 二                                                                                                                               | 運籌帷幄2 〈蘇秦列傳〉、〈廉頗藺相如列傳〉、〈魯仲連鄒陽列傳〉導讀 |
|         | 三                                                                                                                               | 運籌帷幄3 〈蘇秦列傳〉、〈廉頗藺相如列傳〉、〈魯仲連鄒陽列傳〉導讀 |
|         | 四                                                                                                                               | 道法之間1 〈老子韓非列傳〉導讀                   |
|         | 五                                                                                                                               | 道法之間2 〈老子韓非列傳〉導讀                   |
|         | 六                                                                                                                               | 快意思仇1 〈刺客列傳〉導讀                     |
|         | 七                                                                                                                               | 快意思仇2 〈刺客列傳〉導讀                     |
|         | 八                                                                                                                               | 懸壺濟世1 〈扁鵲倉公列傳〉導讀                   |
|         | 九                                                                                                                               | 懸壺濟世2 〈扁鵲倉公列傳〉導讀                   |
|         | 十                                                                                                                               | 微言解紛1 〈滑稽列傳〉導讀                     |
|         | 十一                                                                                                                              | 微言解紛1 〈滑稽列傳〉導讀                     |
|         | 十二                                                                                                                              | 貨通天下1 〈貨殖列傳〉導讀                     |
|         | 十三                                                                                                                              | 貨通天下2 〈貨殖列傳〉導讀                     |
|         | 十四                                                                                                                              | 專題撰寫 自行就所學選擇專題，撰寫報告                |
|         | 十五                                                                                                                              | 專題撰寫 自行就所學選擇專題，撰寫報告                |
|         | 十六                                                                                                                              | 專題撰寫 自行就所學選擇專題，撰寫報告                |
|         | 十七                                                                                                                              | 專題撰寫 自行就所學選擇專題，撰寫報告                |
|         | 十八                                                                                                                              | 專題撰寫 自行就所學選擇專題，撰寫報告                |
|         | 十九                                                                                                                              |                                    |
|         | 二十                                                                                                                              |                                    |
|         | 二十一                                                                                                                             |                                    |
|         | 二十二                                                                                                                             |                                    |
| 學習評量：   | 文本閱讀與口說15%<br>上課提問與回答20%<br>學習態度15%<br>專題製作與報告50%                                                                               |                                    |
| 備註：     |                                                                                                                                 |                                    |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |                                                                                                                   |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： AP 平面視覺設計(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                                                                   |
|             | 英文名稱： AP 2-D Art and Design II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                                                                                                                   |
| 授課年段：       | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        | 學分總數： 4                                                                                                           |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                                                                                                                   |
| 議題融入：       | 生涯規劃、多元文化                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |                                                                                                                   |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                                                                                                                   |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |                                                                                                                   |
|             | B溝通互動： B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |                                                                                                                   |
|             | C社會參與： C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |                                                                                                                   |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                                                                   |
| 學習目標：       | AP Studio Art 2-D is designed for students who are seriously interested in the practical experience of art. The AP program is based on the premise that college-level material can be taught successfully to secondary school students. This is a chance for the visually gifted to excel and receive recognition on a national scale. It allows students to compare their work with that of other high school students throughout the nation and helps them prepare an excellent portfolio for study at the college level. |        |                                                                                                                   |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 單元/主題  | 內容綱要                                                                                                              |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 6 | Address quality, concentration and breadth of portfolio                                                           |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 6 | Address quality, concentration and breadth of portfolio                                                           |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 7 | Develop a personal investigation of artworks                                                                      |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 7 | Finalizing a personal investigation of art works                                                                  |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 7 | Completing the entire process of the AP 2-D Art and Design portfolio.                                             |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 7 | Completing the entire process of the AP 2-D Art and Design portfolio.                                             |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 7 | AP Studio Art 2D portfolio submission                                                                             |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Review | Questions and Discussion                                                                                          |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 8 | Making successful choices in elements of art and principles of art/design, media, and production of created works |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 8 | Making successful choices in elements of art and principles of art/design, media, and production of created works |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 9 | Develop a personal investigation of artworks                                                                      |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 9 | Finalizing a personal investigation of art works                                                                  |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 9 | Completing the entire process of the AP 2-D Art and Design portfolio.                                             |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 9 | Completing the entire process of the AP 2-D Art and Design portfolio.                                             |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 9 | Completing the entire process of the AP 2-D Art and Design portfolio.                                             |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 9 | AP Studio Art 2D portfolio submission                                                                             |

|       |                          |         |                                       |
|-------|--------------------------|---------|---------------------------------------|
|       | 十七                       | Unit 9  | AP Studio Art 2D portfolio submission |
|       | 十八                       | Wrap-up | Reflections and Discussion            |
|       | 十九                       |         |                                       |
|       | 二十                       |         |                                       |
|       | 二十一                      |         |                                       |
|       | 二十二                      |         |                                       |
| 學習評量： | 40% 課堂參與討論、60% portfolio |         |                                       |
| 備註：   | 全英語教學                    |         |                                       |

【備查版】

【備查版】

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                         |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：AP 計算機科學A(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                         |
|             | 英文名稱：AP Computer Science A II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                         |
| 授課年段：       | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 學分總數：4                                                                                                                                                                  |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                         |
| 議題融入：       | 生涯規劃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                         |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                         |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                         |
|             | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                         |
|             | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                         |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                         |
| 學習目標：       | AP Computer Science A is a course designed to awaken and support students' problem-solving skills. The course will introduce the Java programming language while emphasizing universal language techniques like syntax, semantics and readability. While Java is the official AP CS A language, the concepts taught are applicable to any industry standard language such as Python, C++, C#, and JavaScript. Students will gain mastery in programming concepts by using a subset of Java features that are covered when needed throughout the course content. This allows the student to understand and master important concepts that will apply to programming problems in many additional languages. |                                                                                                                                                                         |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 單元/主題                                                                                                                                                                   |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 6: Array                                                                                                                                                           |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 6: Array                                                                                                                                                           |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 6: Array                                                                                                                                                           |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7: ArrayList                                                                                                                                                       |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7: ArrayList                                                                                                                                                       |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7: ArrayList                                                                                                                                                       |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7: ArrayList                                                                                                                                                       |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 8: 2D Array                                                                                                                                                        |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 8: 2D Array                                                                                                                                                        |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 8: 2D Array                                                                                                                                                        |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Review Unit 6 ~Unit 8                                                                                                                                                   |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 內容綱要                                                                                                                                                                    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Learning techniques and standard algorithms to work with collections of related data, known as data structures                                                          |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1. Representing multiple related items as array objects<br>2. Traversing an array by accessing the elements using iteration statements                                  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Standard algorithms that utilize array traversals to perform functions                                                                                                  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Delving deeper into data sets, exploring ArrayList objects for larger amounts of data, as well as the privacy concerns related to personal data storage                 |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1. Representing collections of related object reference data using ArrayList objects<br>2. Traversing an ArrayList by accessing the elements using iteration statements |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Standard algorithms that utilize ArrayList traversals to perform functions                                                                                              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1. Searching and sorting using standard algorithms<br>2. Ethical issues around data collections                                                                         |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2D arrays and experiment with data sets represented in a table                                                                                                          |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Representing collections of data as arrays of arrays, or 2D arrays                                                                                                      |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Traversing a 2D array by accessing the elements using nested iteration statements                                                                                       |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Questions and Discussions                                                                                                                                               |

|       |                            |                        |                                                                                                                                                               |
|-------|----------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | 十二                         | Unit 9: Inheritance    | Learning how to manipulate programming without altering existing code by using subclasses to create a hierarchy                                               |
|       | 十三                         | Unit 9: Inheritance    | 1. Using common attributes and behaviors to group existing objects into superclasses<br>2. Defining and overriding methods within subclasses and superclasses |
|       | 十四                         | Unit 9: Inheritance    | 1. Creating references using inheritance hierarchies<br>2. Associating subclass objects with superclasses to create polymorphism                              |
|       | 十五                         | Unit 10: Recursion     | Working on solving larger problems by solving smaller, simpler versions of the same problem using recursive methods                                           |
|       | 十六                         | Unit 10: Recursion     | Executing recursive methods                                                                                                                                   |
|       | 十七                         | Unit 10: Recursion     | Searching and sorting using binary search and merge sort algorithms                                                                                           |
|       | 十八                         | Review Unit 9 ~Unit 10 | Questions and Discussions                                                                                                                                     |
|       | 十九                         |                        |                                                                                                                                                               |
|       | 二十                         |                        |                                                                                                                                                               |
|       | 二十一                        |                        |                                                                                                                                                               |
|       | 二十二                        |                        |                                                                                                                                                               |
| 學習評量： | 40% 課堂參與、30% 回家作業、30% 專題報告 |                        |                                                                                                                                                               |
| 備註：   | 全英文授課                      |                        |                                                                                                                                                               |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                  |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：AP 微積分AB(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                  |
|             | 英文名稱：AP Calculus AB II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                  |
| 授課年段：       | 二下、三下 學分總數：4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                  |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                  |
| 議題融入：       | 生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                  |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                  |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                  |
|             | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                  |
|             | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                  |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                  |
| 學習目標：       | <ul style="list-style-type: none"> <li>• Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal.</li> <li>• Explain the meaning of the derivative in terms of a rate of change and local linear approximation as well as use derivatives to solve problems.</li> <li>• Explain the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change as well as use integrals to solve problems.</li> <li>• Describe the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.</li> <li>• Communicate mathematics and explain solutions to problems verbally and in writing.</li> <li>• Model a written description of a physical situation with a function, a differential equation, or an integral.</li> <li>• Use technology to solve problems, experiment, interpret results, and support conclusions.</li> <li>• Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.</li> </ul> |                                                                                                                  |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 單元/主題                                                                                                            |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 6 Integration and Accumulation<br>Area and the Definite Integral                                            |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 6 Integration and Accumulation<br>The Fundamental Theorem of Calculus; Properties of the Definite Integral  |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 6 Integration and Accumulation<br>The Definite Integral and Method of Substitution                          |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 6 Integration and Accumulation<br>Integrals Containing Trigonometric Functions                              |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 6 Integration and Accumulation<br>Integration by Completing the Square and Using Long Division              |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 6 Integration and Accumulation<br>Approximating Integrals                                                   |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 7 Differential Equations<br>Ordinary Differential Equations; Separable First-Order Differentiable Equations |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 7 Differential Equations<br>Slope Fields                                                                    |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Review Unit 6-Unit 7<br>Questions and Discussions                                                                |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 8 Applications of Integration<br>Area Between Graphs                                                        |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 8 Applications of Integration<br>Volume of a Solid of Revolution - Disks and Washers; Cylindrical Shells    |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 8 Applications of Integration<br>Volume of a Solid - Slicing                                                |



|       |                            |                                    |                                            |
|-------|----------------------------|------------------------------------|--------------------------------------------|
|       | 十三                         | Unit 8 Applications of Integration | Work-Find the work done in context         |
|       | 十四                         | Unit 9 AP Review                   | Introduction to Final Project; AP Practice |
|       | 十五                         | Unit 9 AP Review                   | AP Practice                                |
|       | 十六                         | Unit 9 AP Review                   | AP Practice Reflection                     |
|       | 十七                         |                                    |                                            |
|       | 十八                         |                                    |                                            |
|       | 十九                         |                                    |                                            |
|       | 二十                         |                                    |                                            |
|       | 二十一                        |                                    |                                            |
|       | 二十二                        |                                    |                                            |
|       |                            |                                    |                                            |
| 學習評量： | 40% 課堂參與、30% 回家作業、30% 專題報告 |                                    |                                            |
| 備註：   | 全英文授課                      |                                    |                                            |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                             |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：AP 微積分BC(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             |
|         | 英文名稱：AP Calculus BC II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                             |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 學分總數：4                                                                                      |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                             |
| 議題融入：   | 生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                             |
| 師資來源：   | 外聘(大學)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                             |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                             |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                             |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                             |
| 學習目標：   | <ul style="list-style-type: none"> <li>• Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal.</li> <li>• Explain the meaning of the derivative in terms of a rate of change and local linear approximation as well as use derivatives to solve problems.</li> <li>• Explain the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change as well as use integrals to solve problems.</li> <li>• Describe the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.</li> <li>• Communicate mathematics and explain solutions to problems verbally and in writing.</li> <li>• Model a written description of a physical situation with a function, a differential equation, or an integral.</li> <li>• Use technology to solve problems, experiment, interpret results, and support conclusions.</li> <li>• Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.</li> </ul> |                                                                                             |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題                                                                                       |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 7 Differential Equations                                                               |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 7 Differential Equations                                                               |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 8 Applications of Integration                                                          |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 8 Applications of Integration                                                          |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 8 Applications of Integration                                                          |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 9 Parametric Equations; Polar Coordinates; and Vector Functions                        |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 9 Parametric Equations; Polar Coordinates; and Vector Functions                        |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 9 Parametric Equations; Polar Coordinates; and Vector Functions                        |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Review Unit 7-Unit 9                                                                        |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 10 Infinite Sequences and Series                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 內容綱要                                                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Ordinary Differential Equations; Separable First-Order Differential Equations; Slope Fields |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Euler's Method and the Logistic Model                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Area Between Graphs; Volume of a Solid of Revolution - Disks and Washers                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Volume of a Solid of Revolution - Cylindrical Shells; Volume of a Solid - Slicing           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Arc Length and Work                                                                         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Parametric Equations; Tangent Lines; Arc Length                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Polar Equations; Parametric Equations of Polar Equations; Area in Polar Coordinates         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Derivatives and Integrals of Vector Functions                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Questions and Discussions                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sequences; Infinite Series; Properties of Series                                            |

|       |     |                                                   |                                                                   |
|-------|-----|---------------------------------------------------|-------------------------------------------------------------------|
|       | 十一  | Unit 10 Infinite Sequences and Series             | Comparison Tests; Alternating Series; Absolute Convergence        |
|       | 十二  | Unit 10 Infinite Sequences and Series             | Ratio and Root Tests; Summary of Tests; Power Series              |
|       | 十三  | Unit 10 Infinite Sequences and Series             | Taylor Series; Maclaurin Series; Taylor Polynomial Approximations |
|       | 十四  | Unit 11 AP Review, AP Practice, and Final Project | Introduction to Final Project; AP Practice                        |
|       | 十五  | Unit 11 AP Review, AP Practice, and Final Project | Final Project                                                     |
|       | 十六  | Wrap-Up                                           | Reflections and Final Thoughts                                    |
|       | 十七  |                                                   |                                                                   |
|       | 十八  |                                                   |                                                                   |
|       | 十九  |                                                   |                                                                   |
|       | 二十  |                                                   |                                                                   |
|       | 二十一 |                                                   |                                                                   |
|       | 二十二 |                                                   |                                                                   |
| 學習評量： |     | 40% 課堂參與、30% 回家作業、30% 專題報告                        |                                                                   |
| 備註：   |     | 全英文授課                                             |                                                                   |

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| 課程名稱：   | 中文名稱： AP 環境科學(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                             |                                                                |
|         | 英文名稱： AP Environmental Science II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                                                |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 學分總數： 4                                     |                                                                |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                                                |
| 議題融入：   | 環境、海洋、生命、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                                                |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                                                |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                                                |
|         | B溝通互動： B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                                                |
|         | C社會參與： C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |                                                                |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |                                                                |
| 學習目標：   | This course provides you with the fundamental knowledge of and skills relating to environmental science that will help you succeed in life after secondary school. You will explore a range of topics, including the role of science in addressing contemporary environmental challenges; the impact of the environment on human health; sustainable agriculture and forestry; the reduction and management of waste; and the conservation of energy. You will increase your scientific and environmental literacy and examine the interrelationships between science, the environment, and society in a variety of areas. |                                             |                                                                |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                       | 內容綱要                                                           |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 Reducing and managing waste          | Lesson 11: What is waste?                                      |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 Reducing and managing waste          | Lesson 12: The base of the pyramid: Landfills and incineration |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 Reducing and managing waste          | Lesson 13: The top of the pyramid: The 3 Rs                    |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 Reducing and managing waste          | Lesson 13: The top of the pyramid: The 3 Rs                    |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 Reducing and managing waste          | Lesson 14: Hard-to-manage wastes                               |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3 Reducing and managing waste          | Lesson 15: Looking to the future                               |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Review Unit 3                               | Questions and Discussions                                      |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4 Sustainable agriculture and forestry | Lesson 16: Pests and pesticides                                |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4 Sustainable agriculture and forestry | Lesson 17: Soil: It's not just dirt                            |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4 Sustainable agriculture and forestry | Lesson 18: Sustainable agricultural practices                  |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4 Sustainable agriculture and forestry | Lesson 19: Forestry: Managing a key natural resource           |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4 Sustainable agriculture and forestry | Lesson 20: Greening the urban landscape                        |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Review Unit 4                               | Questions and Discussions                                      |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Project                               | Project Presentations                                          |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Project                               | Project Presentations                                          |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Wrap-Up                                     | Feedback, Reflections and Final Thoughts                       |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |                                                                |
| 十八      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                                                |

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|-------|------------------------------|--|--|
|       | 十九                           |  |  |
|       | 二十                           |  |  |
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英語授課                        |  |  |

【備查版】

【備查版】

|         |                                                                                                                                                                                                                           |                                                                                     |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：AP化學(下)                                                                                                                                                                                                              |                                                                                     |
|         | 英文名稱：AP Chemistry                                                                                                                                                                                                         |                                                                                     |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                     | 學分總數：8                                                                              |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                    |                                                                                     |
| 議題融入：   | 能源                                                                                                                                                                                                                        |                                                                                     |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                    |                                                                                     |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                       |                                                                                     |
|         | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                                                       |                                                                                     |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                       |                                                                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                    |                                                                                     |
| 學習目標：   | Learn about the fundamental concepts of chemistry including structure and states of matter, intermolecular forces, and reactions. You' ll do hands-on lab investigations and use chemical calculations to solve problems. |                                                                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                      | 單元/主題                                                                               |
|         | 一                                                                                                                                                                                                                         | Unit 6: Thermodynamics                                                              |
|         | 二                                                                                                                                                                                                                         | Unit 6: Thermodynamics                                                              |
|         | 三                                                                                                                                                                                                                         | Unit 6: Thermodynamics                                                              |
|         | 四                                                                                                                                                                                                                         | Unit 6: Thermodynamics                                                              |
|         | 五                                                                                                                                                                                                                         | Unit 7: Equilibrium                                                                 |
|         | 六                                                                                                                                                                                                                         | Unit 7: Equilibrium                                                                 |
|         | 七                                                                                                                                                                                                                         | Unit 7: Equilibrium                                                                 |
|         | 八                                                                                                                                                                                                                         | Unit 7: Equilibrium                                                                 |
|         | 九                                                                                                                                                                                                                         | Unit 8: Acids and Bases                                                             |
|         | 十                                                                                                                                                                                                                         | Unit 8: Acids and Bases                                                             |
|         | 十一                                                                                                                                                                                                                        | Unit 8: Acids and Bases                                                             |
|         | 十二                                                                                                                                                                                                                        | Unit 8: Acids and Bases                                                             |
|         | 十三                                                                                                                                                                                                                        | Unit 9: Applications of Thermodynamics                                              |
|         | 十四                                                                                                                                                                                                                        | Unit 9: Applications of Thermodynamics                                              |
|         | 十五                                                                                                                                                                                                                        | Unit 9: Applications of Thermodynamics                                              |
|         | 十六                                                                                                                                                                                                                        | Wrap-up                                                                             |
|         | 十七                                                                                                                                                                                                                        |                                                                                     |
|         | 十八                                                                                                                                                                                                                        |                                                                                     |
|         | 十九                                                                                                                                                                                                                        |                                                                                     |
|         |                                                                                                                                                                                                                           | 內容綱要                                                                                |
|         |                                                                                                                                                                                                                           | Endothermic and exothermic processes<br>Heat transfer and thermal equilibrium       |
|         |                                                                                                                                                                                                                           | Heat capacity and calorimetry<br>Energy of phase changes                            |
|         |                                                                                                                                                                                                                           | Introduction to enthalpy of reaction<br>Enthalpy of formation                       |
|         |                                                                                                                                                                                                                           | Hess' s law                                                                         |
|         |                                                                                                                                                                                                                           | Introduction to equilibrium<br>Calculating the equilibrium constant                 |
|         |                                                                                                                                                                                                                           | Calculating equilibrium concentrations<br>Introduction to Le Châtelier' s principle |
|         |                                                                                                                                                                                                                           | Introduction to solubility equilibria                                               |
|         |                                                                                                                                                                                                                           | Introduction to solubility equilibria                                               |
|         |                                                                                                                                                                                                                           | pH and solubility<br>Free energy of dissolution                                     |
|         |                                                                                                                                                                                                                           | Introduction to acids and bases<br>pH and pOH of strong acids and bases             |
|         |                                                                                                                                                                                                                           | Acid-base reactions and buffers                                                     |
|         |                                                                                                                                                                                                                           | Molecular structure of acids and bases<br>pH and pKa                                |
|         |                                                                                                                                                                                                                           | Properties of buffers                                                               |
|         |                                                                                                                                                                                                                           | Introduction to entropy<br>Gibbs free energy and thermodynamic favorability         |
|         |                                                                                                                                                                                                                           | Thermodynamic and kinetic control                                                   |
|         |                                                                                                                                                                                                                           | Free energy and equilibrium                                                         |
|         |                                                                                                                                                                                                                           | Discussion and questions                                                            |

|       |                              |  |
|-------|------------------------------|--|
|       | 二十                           |  |
|       | 二十一                          |  |
|       | 二十二                          |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |
| 備註：   | 全英語授課                        |  |



|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                  |
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| 課程名稱：   | 中文名稱：AP心理學(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                  |
|         | 英文名稱：AP Psychology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                  |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 學分總數：4                                                                                                                           |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                  |
| 議題融入：   | 閱讀素養                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                  |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
|         | B溝通互動：B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                  |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                  |
| 學習目標：   | <ul style="list-style-type: none"> <li>• Student will explain the need for ethical behavior throughout the scientific field of psychology</li> <li>• Student will demonstrate understanding of brain functions by relating research and case studies to perception and sensation, and discussing how parts of the brain send signals throughout the brain and to the body to activate behavior.</li> <li>• Student will show comprehension of multiple psychological disorders by evaluating case studies.</li> <li>• Student will demonstrate their knowledge of behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural perspectives of psychology through multiple projects</li> <li>• Students will demonstrate how individual differences influence beliefs, values, and social interactions.</li> </ul> |                                                                                                                                  |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 單元/主題                                                                                                                            |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 7: Cognition                                                                                                                |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 7: Cognition                                                                                                                |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 7: Cognition                                                                                                                |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 8: Motivation, Emotion, and Stress                                                                                          |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 8: Motivation, Emotion, and Stress                                                                                          |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 8: Motivation, Emotion, and Stress                                                                                          |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 9: Developmental Psychology                                                                                                 |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit 9: Developmental Psychology                                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 內容綱要                                                                                                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What parts of the brain are involved in memory?<br>How can memory be improved?                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What is language?<br>How do we develop language?                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | How does our brain process language?<br>Articulate the psychological definition of memory.                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What drives and instincts are important to humans?<br>What importance does arousal have in our lives?                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | How does the issue of belonging affect behavior?<br>How do people respond to emotions?                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What factors influence emotional expression and comprehension?<br>What importance does stress have on our daily lives?           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What is the relative contribution of nature and nurture?<br>What factors contribute to healthy prenatal and newborn development? |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | What do we learn about human development by how brains and motor skills develop individually?                                    |

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|       |                                             | How do Piaget and Vygotsky' s developmental theories compare?                                                                    |
| 九     | Unit 9: Developmental Psychology            | How do gender roles affect development?<br>How do children think differently than adults?                                        |
| 十     | Unit 10 :Personality                        | How does psychoanalysis explain personality?<br>Are Freud' s ideas credible? How have they evolved?                              |
| 十一    | Unit 10 :Personality                        | What is the unconscious mind?<br>How is the unconscious mind assessed?                                                           |
| 十二    | Unit 10 :Personality                        | How have Maslow and Rogers contributed to personality theories?<br>How do we define and assess personality traits?               |
| 十三    | Unit 11: Testing and Individual Differences | What is intelligence?<br>What types of intelligence are there?                                                                   |
| 十四    | Unit 11: Testing and Individual Differences | How are intelligences measured?<br>Are intelligence tests valid and reliable?<br>Explain the difficulty in defining intelligence |
| 十五    | Unit 11: Testing and Individual Differences | Compare Gardner' s and Sternberg' s theories of intelligence.<br>Compare the four components of emotional intelligence           |
| 十六    | Wrap-up                                     | Discussion and questions                                                                                                         |
| 十七    |                                             |                                                                                                                                  |
| 十八    |                                             |                                                                                                                                  |
| 十九    |                                             |                                                                                                                                  |
| 二十    |                                             |                                                                                                                                  |
| 二十一   |                                             |                                                                                                                                  |
| 二十二   |                                             |                                                                                                                                  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告                |                                                                                                                                  |
| 備註：   | 全英語授課                                       |                                                                                                                                  |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                     |
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| 課程名稱：   | 中文名稱：AP世界歷史(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                     |
|         | 英文名稱：AP World History: Modern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                     |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 學分總數：8                                                                                                                                                                                              |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                     |
| 議題融入：   | 性別平等、人權、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                     |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                     |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                     |
|         | B溝通互動：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                     |
|         | C社會參與：C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                     |
| 學習目標：   | <p>Constructing and evaluating arguments, using evidence to make plausible arguments. Using documents and other primary data: developing the skills necessary to analyze point of view, context and bias, and to understand and interpret information. Developing the ability to assess issues of change and continuity over time. Enhancing the capacity to handle diversity of interpretations through analysis of context, bias, and frame of reference.</p> <p>Seeing global patterns over time and space, while acquiring the ability to connect local developments to global ones and to move through levels of generalizations from the global to the particular.</p> <p>Developing the ability to compare within and among societies, including comparing societies' reactions to global processes.</p> <p>Developing the ability to assess claims of universal standards, yet remaining aware of human commonalities and differences;</p> <p>Putting culturally diverse ideas and values in historical context, not by suspending judgment, but by developing</p> |                                                                                                                                                                                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                                                                                                                                                                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Semester 2 Introduction and Review                                                                                                                                                                  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4: Transoceanic Interconnections                                                                                                                                                               |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5: Revolutions                                                                                                                                                                                 |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5: Revolutions                                                                                                                                                                                 |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5: Revolutions                                                                                                                                                                                 |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5: Revolutions                                                                                                                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 內容綱要                                                                                                                                                                                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Semester 2 Introduction and Review                                                                                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Continuing your study of the period c. 1450 - c. 1750, you'll learn about advances in ocean exploration, the development of new maritime empires, and the effects of new cross-cultural encounters  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | You'll start your study of the period c. 1750 - c. 1900 by exploring the new political ideas and developments in technology that led to large-scale changes in governments, society, and economies. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | You'll start your study of the period c. 1750 - c. 1900 by exploring the new political ideas and developments in technology that led to large-scale changes in governments, society, and economies. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | You'll start your study of the period c. 1750 - c. 1900 by exploring the new political ideas and developments in technology that led to large-scale changes in governments, society, and economies. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | You'll start your study of the period c. 1750 - c. 1900 by exploring the new political ideas and developments in technology that led to large-scale changes in governments, society, and economies. |

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|       |                                           | at led to large-scale changes in governments, society, and economies.                                                                                                                               |
| 七     | Unit 5: Revolutions                       | You'll start your study of the period c. 1750 - c. 1900 by exploring the new political ideas and developments in technology that led to large-scale changes in governments, society, and economies. |
| 八     | Unit 6: Consequences of Industrialization | You'll continue to investigate the period c. 1750 - c. 1900 and learn how the different states acquired and expanded control over colonies and territories.                                         |
| 九     | Unit 6: Consequences of Industrialization | You'll continue to investigate the period c. 1750 - c. 1900 and learn how the different states acquired and expanded control over colonies and territories.                                         |
| 十     | Unit 6: Consequences of Industrialization | You'll continue to investigate the period c. 1750 - c. 1900 and learn how the different states acquired and expanded control over colonies and territories.                                         |
| 十一    | Unit 6: Consequences of Industrialization | You'll continue to investigate the period c. 1750 - c. 1900 and learn how the different states acquired and expanded control over colonies and territories.                                         |
| 十二    | Unit 6: Consequences of Industrialization | You'll continue to investigate the period c. 1750 - c. 1900 and learn how the different states acquired and expanded control over colonies and territories.                                         |
| 十三    | Review                                    | Unit 4-6                                                                                                                                                                                            |
| 十四    | Unit 7: Global Conflict                   | You'll begin your study of the period c. 1900 - present by learning about the global conflicts that dominated this era.                                                                             |
| 十五    | Unit 7: Global Conflict                   | You'll begin your study of the period c. 1900 - present by learning about the global conflicts that dominated this era.                                                                             |
| 十六    | Unit 8: Cold War and Decolonization       | As you continue exploring the period c. 1900 - present, you'll learn about colonies' pursuits of independence and the global power struggle between capitalism and communism.                       |
| 十七    | Unit 9: Globalization                     | You'll continue your study of the period c. 1900 - present by investigating the causes and effects of the unprecedented connectivity of the modern world.                                           |
| 十八    | Review                                    | AP Exam Preparation                                                                                                                                                                                 |
| 十九    |                                           |                                                                                                                                                                                                     |
| 二十    |                                           |                                                                                                                                                                                                     |
| 二十一   |                                           |                                                                                                                                                                                                     |
| 二十二   |                                           |                                                                                                                                                                                                     |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告              |                                                                                                                                                                                                     |
| 備註：   | 全英授課                                      |                                                                                                                                                                                                     |

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| 課程名稱：       | 中文名稱： AP生物學(下)                                                                                                                                                                          |                                                                |                                                                                                                            |
|             | 英文名稱： AP Biology                                                                                                                                                                        |                                                                |                                                                                                                            |
| 授課年段：       | 二下、三下                                                                                                                                                                                   | 學分總數： 8                                                        |                                                                                                                            |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                  |                                                                |                                                                                                                            |
| 議題融入：       | 科技                                                                                                                                                                                      |                                                                |                                                                                                                            |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                  |                                                                |                                                                                                                            |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                    |                                                                |                                                                                                                            |
|             | B溝通互動： B2.科技資訊與媒體素養,                                                                                                                                                                    |                                                                |                                                                                                                            |
|             | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                                    |                                                                |                                                                                                                            |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                      |                                                                |                                                                                                                            |
| 學習目標：       | Study the core scientific principles, theories, and processes that govern living organisms and biological systems. You'll do hands-on laboratory work to investigate natural phenomena. |                                                                |                                                                                                                            |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                | 單元/主題                                                          | 內容綱要                                                                                                                       |
|             | 一                                                                                                                                                                                       | Unit 5: Heredity                                               | The process and function of meiosis                                                                                        |
|             | 二                                                                                                                                                                                       | Unit 5: Heredity                                               | The concepts genetic diversity                                                                                             |
|             | 三                                                                                                                                                                                       | Unit 5: Heredity                                               | Mendel's laws and probability<br>Non-mendelian Inheritance                                                                 |
|             | 四                                                                                                                                                                                       | Unit 5: Heredity                                               | Factors affecting inheritance and gene expression                                                                          |
|             | 五                                                                                                                                                                                       | Unit 6: Gene Expression and Regulation                         | The roles and functions of DNA and RNA                                                                                     |
|             | 六                                                                                                                                                                                       | Unit 6: Gene Expression and Regulation                         | The mechanisms of gene expression                                                                                          |
|             | 七                                                                                                                                                                                       | Unit 6: Gene Expression and Regulation                         | How genotype affects phenotype                                                                                             |
|             | 八                                                                                                                                                                                       | Unit 6: Gene Expression and Regulation                         | Mutations, genetic diversity, and natural selection<br>Genetic engineering and biotechnology                               |
|             | 九                                                                                                                                                                                       | Unit 7: Natural Selection                                      | Evidential support for evolution and common ancestry                                                                       |
|             | 十                                                                                                                                                                                       | Unit 7: Natural Selection                                      | The mechanisms of natural selection and speciation                                                                         |
|             | 十一                                                                                                                                                                                      | Unit 7: Natural Selection                                      | Environmental and human-caused factors in evolution                                                                        |
|             | 十二                                                                                                                                                                                      | Unit 7: Natural Selection                                      | Charting species ancestry through phylogenetic trees and cladograms<br>Extinction<br>Models of the origin of life on Earth |
|             | 十三                                                                                                                                                                                      | Unit 8: Ecology                                                | Communication and responses to environmental changes                                                                       |
|             | 十四                                                                                                                                                                                      | Unit 8: Ecology                                                | Energy flow within and across ecosystems                                                                                   |
|             | 十五                                                                                                                                                                                      | Unit 8: Ecology                                                | Factors in the growth, density, and success of populations                                                                 |
|             | 十六                                                                                                                                                                                      | Unit 8: Ecology                                                | Factors in community and ecosystem dynamics                                                                                |
| 十七          | Unit 8: Ecology                                                                                                                                                                         | Invasive species, human interaction, and environmental changes |                                                                                                                            |

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|       | 十八  | Wrap-up                      | Discussion and questions |
|       | 十九  |                              |                          |
|       | 二十  |                              |                          |
|       | 二十一 |                              |                          |
|       | 二十二 |                              |                          |
|       |     |                              |                          |
| 學習評量： |     | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                          |
| 備註：   |     | 全英語授課                        |                          |

【備 查 版】

【備 查 版】

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|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： AP美國歷史(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
|         | 英文名稱： AP U.S. History                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                       | 學分總數： 8                                                                                                                                                                                                                                                                                                                                                                            |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
| 議題融入：   | 性別平等、人權、生命、法治、多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
|         | B溝通互動： B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
|         | C社會參與： C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
| 學習目標：   | Identify and explain historical developments and processes.<br>Analyze sourcing and situation of primary and secondary sources.<br>Analyze arguments in primary and secondary sources.<br>Analyze the context of historical events, developments, or processes. Using historical reasoning processes (comparison, causation, continuity and change), analyze patterns and connections between and among historical developments and processes.<br>Develop a historically defensible argument and support it with specific examples of relevant evidence. |                                                       |                                                                                                                                                                                                                                                                                                                                                                                    |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 單元/主題                                                 | 內容綱要                                                                                                                                                                                                                                                                                                                                                                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Review and discussion the learning from last semester | Review and discussion the learning from last semester                                                                                                                                                                                                                                                                                                                              |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | The Gilded Age Pt 1                                   | Explain how cultural and economic factors affected migration patterns over time.<br>Explain the various responses to immigration in the period over time.<br>Explain the causes of increased economic opportunity and its effects on society.                                                                                                                                      |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | The Gilded Age Pt 2                                   | Explain how different reform movements responded to the rise of industrial capitalism in the Gilded Age.<br>Explain continuities and changes in the role of the government in the U.S. economy.<br>Explain the similarities and differences between the political parties during the Gilded Age.<br>Explain the extent to which industrialization brought change from 1865 to 1898 |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Imperialism and The Progressives                      | Explain the context in which America grew into its role as a world power. Explain the similarities and differences in attitudes about the nation's proper role in the world.<br>Explain the effects of the Spanish-American War.<br>Compare the goals and effects of the Progressive reform movement.                                                                              |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | WWI and the 1920s                                     | Explain the causes and consequences of U.S. involvement in World War I. Explain the causes and effects of international and internal migration patterns over time.<br>Explain the causes and effects of the innovations in communication and technology in                                                                                                                         |



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|    |                                             | the United States over time.<br>Explain the causes and effects of developments in popular culture in the United States over time.                                                                                                                                                                                                                                                                                                                               |
| 六  | The Great Depression and the New Deal       | Explain the causes of the Great Depression and its effects on the economy. Explain how the Great Depression and the New Deal impacted American political, social, and economic life over time.<br>Explain the similarities and differences in attitudes about the nation's proper role in the world.                                                                                                                                                            |
| 七  | WWII and its aftermath                      | Explain how and why U.S. participation in World War II transformed American society. Explain the causes and effects of the victory of the United States and its allies over the Axis powers.<br>Explain the consequences of U.S. involvement in World War II.<br>Compare the relative significance of the major events of the first half of the 20th century in shaping American identity.                                                                      |
| 八  | Review                                      | Review                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 九  | Cold War and Economy and Culture after 1945 | Explain the context for societal change from 1945 to 1980.<br>Explain the continuities and changes in Cold War policies from 1945 to 1980. Explain the causes and effects of the Red Scare after World War II.<br>Explain the causes of economic growth in the years after World War II.<br>Explain the causes and effects of the migration of various groups of Americans after 1945.<br>Explain how mass culture has been maintained or challenged over time. |
| 十  | Civil Rights Movement                       | Explain how and why the civil rights movements developed and expanded from 1945 to 1960.<br>Explain how and why various groups responded to calls for the expansion of civil rights from 1960 to 1980.<br>Explain the various ways in which the federal government responded to the calls for the expansion of civil rights.<br>Explain how and why various groups responded to calls for the expansion of civil rights from 1960 to 1980.                      |
| 十一 | Vietnam War the Great Society               | Explain the various military and diplomatic responses to international developments over time.<br>Explain the causes and effects of the Vietnam War.<br>Explain the causes and effects of continuing policy debates about the role of the federal government over time                                                                                                                                                                                          |
| 十二 | Society in Transition                       | Explain how and why opposition to existing policies and values developed and changed over the course of the 20th century.                                                                                                                                                                                                                                                                                                                                       |

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|       |                              | <p>Explain how and why policies related to the environment developed and changed from 1968 to 1980.</p> <p>Explain the causes and effects of continuing policy debates about the role of the federal government over time.</p> <p>Explain the effects of the growth of religious movements over the course of the 20th century.</p> <p>Explain the extent to which the events of the period from 1945 to 1980 reshaped national identity.</p> |                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 十三                           | Assessment/Review Week                                                                                                                                                                                                                                                                                                                                                                                                                        | Assessment/Review Week                                                                                                                                                                                                                                                                                                                                                                               |
|       | 十四                           | 1980–Present                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Explain the context in which the United States faced international and domestic challenges after 1980.</p> <p>Explain the causes and effects of continuing policy debates about the role of the federal government over time.</p> <p>Explain the causes and effects of the end of the Cold War and its legacy. Explain the causes and effects of economic and technological change over time.</p> |
|       | 十五                           | 1980–Present                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Explain the causes and effects of the domestic and international challenges the United States has faced in the 21st century.</p> <p>Explain the relative significance of the effects of change in the period after 1980 on American national identity.</p> <p>Explain the causes and effects of domestic and international migration over time.</p>                                               |
|       | 十六                           | AP Exam Review Part 1                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Review content from the year.</p> <p>Complete a full-length practice exam.</p>                                                                                                                                                                                                                                                                                                                    |
|       | 十七                           | AP Exam Review Part 2                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Reflect on AP Practice Exam performance.</p> <p>Identify areas of confusion and resources for review.</p>                                                                                                                                                                                                                                                                                         |
|       | 十八                           | Final Thoughts and Goodbyes                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Reflect on course experience.</p> <p>Share final thoughts with classmates</p>                                                                                                                                                                                                                                                                                                                     |
|       | 十九                           |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 二十                           |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 二十一                          |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 二十二                          |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                      |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                      |
| 備註：   | 全英授課                         |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                      |

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| 課程名稱：   | 中文名稱：AP統計學(下)                                                                                                                                                                                                       |                                                                                                                                  |
|         | 英文名稱：AP Statistics                                                                                                                                                                                                  |                                                                                                                                  |
| 授課年段：   | 二下、三下 學分總數：4                                                                                                                                                                                                        |                                                                                                                                  |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                              |                                                                                                                                  |
| 議題融入：   | 科技                                                                                                                                                                                                                  |                                                                                                                                  |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                              |                                                                                                                                  |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                 |                                                                                                                                  |
|         | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                                                 |                                                                                                                                  |
|         | C社會參與：C1.道德實踐與公民意識,                                                                                                                                                                                                 |                                                                                                                                  |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                              |                                                                                                                                  |
| 學習目標：   | Learn about the major concepts and tools used for collecting, analyzing, and drawing conclusions from data. You'll explore statistics through discussion and activities, and you'll design surveys and experiments. |                                                                                                                                  |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                | 單元/主題                                                                                                                            |
|         | 一                                                                                                                                                                                                                   | Unit 5: Sampling Distributions                                                                                                   |
|         | 二                                                                                                                                                                                                                   | Unit 5: Sampling Distributions                                                                                                   |
|         | 三                                                                                                                                                                                                                   | Unit 5: Sampling Distributions                                                                                                   |
|         | 四                                                                                                                                                                                                                   | Unit 6: Inference for Categorical Data: Proportions                                                                              |
|         | 五                                                                                                                                                                                                                   | Unit 6: Inference for Categorical Data: Proportions                                                                              |
|         | 六                                                                                                                                                                                                                   | Unit 6: Inference for Categorical Data: Proportions                                                                              |
|         | 七                                                                                                                                                                                                                   | Unit 6: Inference for Categorical Data: Proportions                                                                              |
|         | 八                                                                                                                                                                                                                   | Unit 7: Inference for Quantitative Data: Means                                                                                   |
|         | 九                                                                                                                                                                                                                   | Unit 7: Inference for Quantitative Data: Means                                                                                   |
|         | 十                                                                                                                                                                                                                   | Unit 7: Inference for Quantitative Data: Means                                                                                   |
|         | 十一                                                                                                                                                                                                                  | Unit 7: Inference for Quantitative Data: Means                                                                                   |
|         | 十二                                                                                                                                                                                                                  | Unit 8: Inference for Categorical Data: Chi-Square                                                                               |
|         | 十三                                                                                                                                                                                                                  | Unit 8: Inference for Categorical Data: Chi-Square                                                                               |
|         | 十四                                                                                                                                                                                                                  | Unit 8: Inference for Categorical Data: Chi-Square                                                                               |
|         | 十五                                                                                                                                                                                                                  | Unit 9: Inference for Quantitative Data: Slopes                                                                                  |
|         | 十六                                                                                                                                                                                                                  | Unit 9: Inference for Quantitative Data: Slopes                                                                                  |
|         |                                                                                                                                                                                                                     | 內容綱要                                                                                                                             |
|         |                                                                                                                                                                                                                     | Variation in statistics for samples collected from the same population                                                           |
|         |                                                                                                                                                                                                                     | The central limit theorem<br>Biased and unbiased point estimates                                                                 |
|         |                                                                                                                                                                                                                     | Sampling distributions for sample proportions<br>Sampling distributions for sample means                                         |
|         |                                                                                                                                                                                                                     | Constructing and interpreting a confidence interval for a population proportion                                                  |
|         |                                                                                                                                                                                                                     | Setting up and carrying out a test for a population proportion                                                                   |
|         |                                                                                                                                                                                                                     | Interpreting a p-value and justifying a claim about a population proportion<br>Type I and Type II errors in significance testing |
|         |                                                                                                                                                                                                                     | Confidence intervals and tests for the difference of 2 proportions                                                               |
|         |                                                                                                                                                                                                                     | Constructing and interpreting a confidence interval for a population mean                                                        |
|         |                                                                                                                                                                                                                     | Setting up and carrying out a test for a population mean                                                                         |
|         |                                                                                                                                                                                                                     | Interpreting a p-value and justifying a claim about a population mean                                                            |
|         |                                                                                                                                                                                                                     | Confidence intervals and tests for the difference of 2 population means                                                          |
|         |                                                                                                                                                                                                                     | The chi-square test for goodness of fit<br>The chi-square test for homogeneity                                                   |
|         |                                                                                                                                                                                                                     | The chi-square test for independence                                                                                             |
|         |                                                                                                                                                                                                                     | Selecting an appropriate inference procedure for categorical data                                                                |
|         |                                                                                                                                                                                                                     | Confidence intervals for the slope of a regression model                                                                         |
|         |                                                                                                                                                                                                                     | Setting up and carrying out a test for the slope of a regression model                                                           |

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|       | 十七                           | Unit 9: Inference for Quantitative Data: Slopes | Selecting an appropriate inference procedure |
|       | 十八                           | Wrap-up                                         | Discussion and questions                     |
|       | 十九                           |                                                 |                                              |
|       | 二十                           |                                                 |                                              |
|       | 二十一                          |                                                 |                                              |
|       | 二十二                          |                                                 |                                              |
|       |                              |                                                 |                                              |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                 |                                              |
| 備註：   | 全英語授課                        |                                                 |                                              |

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| 課程名稱：       | 中文名稱：AP預科微積分(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                    |
|             | 英文名稱：AP Pre-Calculus II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                    |
| 授課年段：       | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 學分總數：4                                                             |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                    |
| 議題融入：       | 生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                    |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                    |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                    |
|             | B溝通互動：B1.符號運用與溝通表達，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                    |
|             | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                    |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                       |                                                                    |
| 學習目標：       | <ul style="list-style-type: none"> <li>• Compare different types of functions to make general conclusions.</li> <li>• Solve algebraic and transcendental equations using analytical, numerical, and graphical methods.</li> <li>• Analyze graphs of elementary functions: linear, quadratic, polynomial, exponential, logarithmic, and trigonometric functions.</li> <li>• Interpret models of elementary functions: linear, quadratic, polynomial, exponential, logarithmic, and trigonometric functions.</li> </ul> |                                                                    |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題                                                              |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Trigonometric and Polar Functions                           |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4 Functions Involving Parameters, Vectors, and Matrices       |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4 Functions Involving Parameters, Vectors, and Matrices       |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4 Functions Involving Parameters, Vectors, and Matrices       |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4 Functions Involving Parameters, Vectors, and Matrices       |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AP Review and Practice                                             |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Wrap-Up                                                            |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 內容綱要                                                               |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Angles and Their Measures                                          |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Trigonometric Functions of Acute Angles and the Circular Functions |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Graphs of Trigonometric Functions                                  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Composite and Inverse Trigonometric Functions                      |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Solving Problems with Trigonometry                                 |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Fundamental Identities and Proving Trigonometric Identities        |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sum, Difference, and Multiple-Angle Identities                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Law of Sines and Law of Cosines                                    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Polar Coordinates and Graphs of Polar Equations                    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 3 Summative Review                                            |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Vectors and Dot Products                                           |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Conic Sections                                                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Solving Systems of Two Equations and Matrix Algebra                |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4 Summative                                                   |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AP Practice                                                        |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reflection on AP Practice<br>Final Thoughts and Reflections        |

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|       | 十七                         |  |  |
|       | 十八                         |  |  |
|       | 十九                         |  |  |
|       | 二十                         |  |  |
|       | 二十一                        |  |  |
|       | 二十二                        |  |  |
| 學習評量： | 40% 課堂參與、30% 回家作業、30% 專題報告 |  |  |
| 備註：   |                            |  |  |

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【備查版】

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| 課程名稱：   | 中文名稱：AP總體經濟學                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                             |
|         | 英文名稱：AP Macroeconomics                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                             |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                    | 學分總數：4                                                                                                                                                                                                      |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                             |
| 議題融入：   | 閱讀素養、國際教育                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                             |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                             |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                             |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                             |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                   |                                                                                                                                                                                                             |
| 學習目標：   | <ul style="list-style-type: none"> <li>Define and interpret economic principles and models.</li> <li>Explain given economic outcomes.</li> <li>Determine outcomes of specific economic situations.</li> <li>Model economic situations using graphs or visual representations.</li> </ul> |                                                                                                                                                                                                             |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                     | 單元/主題 內容綱要                                                                                                                                                                                                  |
|         | 一                                                                                                                                                                                                                                                                                        | Unit 1: Basic Economic Concepts<br>An introduction to economic concepts, principles, and models that will serve as a foundation for studying macroeconomics.                                                |
|         | 二                                                                                                                                                                                                                                                                                        | Unit 1: Basic Economic Concepts<br>Scarcity<br>Opportunity cost and the Production Possibilities Curve                                                                                                      |
|         | 三                                                                                                                                                                                                                                                                                        | Unit 1: Basic Economic Concepts<br>Comparative advantage and gains from trade<br>Supply and demand<br>Market equilibrium, disequilibrium, and changes in equilibrium                                        |
|         | 四                                                                                                                                                                                                                                                                                        | Unit 2: Economic Indicators and the Business Cycle<br>How economic phenomena such as employment and inflation are measured.<br>The circular flow and GDP                                                    |
|         | 五                                                                                                                                                                                                                                                                                        | Unit 2: Economic Indicators and the Business Cycle<br>Unemployment<br>Price indices and inflation                                                                                                           |
|         | 六                                                                                                                                                                                                                                                                                        | Unit 2: Economic Indicators and the Business Cycle<br>Real vs. nominal GDP<br>Business cycles                                                                                                               |
|         | 七                                                                                                                                                                                                                                                                                        | Unit 3: National Income and Price Determination<br>Explore how changes in aggregate spending and production, economic fluctuations, and policy actions affect national income, unemployment, and inflation. |
|         | 八                                                                                                                                                                                                                                                                                        | Unit 3: National Income and Price Determination<br>Aggregate demand<br>Short-run and long-run aggregate supply<br>Equilibrium and changes in the Aggregate Demand-Aggregate Supply Model<br>Fiscal policy   |
|         | 九                                                                                                                                                                                                                                                                                        | Unit 4: Financial Sector<br>Examine the financial sector and explain how monetary policy is implemented and transmitted through the banking system.                                                         |
|         | 十                                                                                                                                                                                                                                                                                        | Unit 4: Financial Sector <ul style="list-style-type: none"> <li>Financial assets</li> <li>Definition, measurement, and functions of money</li> <li>Banking and the expansion of the money</li> </ul>        |



|                                   |                                                         |                                                                                                                                                                                                        |
|-----------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   |                                                         | supply<br>• Monetary policy                                                                                                                                                                            |
| 十一                                | Unit 5: Long-Run Consequences of Stabilization Policies | The effects of fiscal and monetary policy actions and examine the concept of economic growth.                                                                                                          |
| 十二                                | Unit 5: Long-Run Consequences of Stabilization Policies | The Phillips Curve<br>Money growth and inflation                                                                                                                                                       |
| 十三                                | Unit 5: Long-Run Consequences of Stabilization Policies | Government deficits and national debt<br>Crowding out<br>Economic growth                                                                                                                               |
| 十四                                | Unit 6: Open Economy—International Trade and Finance    | Examine the concept of an open economy in which a country interacts with the rest of the world through product and financial markets.                                                                  |
| 十五                                | Unit 6: Open Economy—International Trade and Finance    | Balance of payments accounts<br>Exchange rates and the foreign exchange market                                                                                                                         |
| 十六                                | Unit 6: Open Economy—International Trade and Finance    | Effects of changes in policies and economic conditions on the foreign exchange market<br>Changes in the foreign exchange market and net exports<br>Real interest rates and international capital flows |
| 十七                                |                                                         |                                                                                                                                                                                                        |
| 十八                                |                                                         |                                                                                                                                                                                                        |
| 十九                                |                                                         |                                                                                                                                                                                                        |
| 二十                                |                                                         |                                                                                                                                                                                                        |
| 二十一                               |                                                         |                                                                                                                                                                                                        |
| 二十二                               |                                                         |                                                                                                                                                                                                        |
| 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                         |                                                                                                                                                                                                        |
| 備註：                               |                                                         |                                                                                                                                                                                                        |

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| 課程名稱：       | 中文名稱：人類學、心理學與社會學導論(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |
|             | 英文名稱：Introduction to Anthropology, Psychology, and Sociology II                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
| 授課年段：       | 二下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 學分總數：3                       |
| 課程屬性：       | 跨領域/科目專題                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |
| 議題融入：       | 生命、多元文化                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |
|             | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |
|             | C社會參與：C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                     |                              |
| 學習目標：       | This course provides you with opportunities to think critically about theories, questions, and issues related to anthropology, psychology, and sociology. You will develop an understanding of the approaches and research methods used by social scientists. You will also be given opportunities to explore theories from a variety of perspectives, to conduct social science research, and to become familiar with current thinking on a range of issues within the three disciplines. |                              |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 單元/主題                        |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4 Psychology - Part B   |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4 Psychology - Part B   |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4 Psychology - Part B   |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 4 Psychology - Part B   |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 Sociology             |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 Sociology             |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 Sociology             |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 Sociology             |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 Sociology             |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 Sociology             |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 6 Anthropology - Part A |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 6 Anthropology - Part A |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 Anthropology - Part B |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 Anthropology - Part B |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 Anthropology - Part B |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 Anthropology - Part B |
|             | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Project                |
|             | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Project                |
|             | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |
|             | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |
|             | 二十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |

|       |                              |  |
|-------|------------------------------|--|
|       | 二十二                          |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |
| 備註：   |                              |  |

【備查版】

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| 課程名稱：   | 中文名稱： 化學探秘                                                                                                                                                                                                             |         |                                          |
|         | 英文名稱： Exploring Chemistry                                                                                                                                                                                              |         |                                          |
| 授課年段：   | 二下                                                                                                                                                                                                                     | 學分總數： 2 |                                          |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                                                                                                            |         |                                          |
| 議題融入：   | 環境、科技、閱讀素養                                                                                                                                                                                                             |         |                                          |
| 師資來源：   | 校內單科                                                                                                                                                                                                                   |         |                                          |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                   |         |                                          |
|         | B溝通互動： B2.科技資訊與媒體素養,                                                                                                                                                                                                   |         |                                          |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                                                                   |         |                                          |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。,                                                                                                             |         |                                          |
| 學習目標：   | 1.引導學生認識科學活動並提升學生學習科學的動機與興趣。<br>2.將化學基本知識與實驗操作技能融入課程，使學生熟悉科學常用的工具。<br>3.以探究課程教學模式培養學生思考、解決問題的能力，並激發其創造力與找到最佳化條件能力，以培養細心與耐心的科學態度。<br>4.培養學生做中學與報告撰寫表達的能力，包括統整實驗數據、省思等。<br>5.學生在面對挫折能藉由彼此合作、腦力激盪，累積解決問題的毅力與勇氣，增進自我挑戰自信心。 |         |                                          |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                   | 單元/主題   | 內容綱要                                     |
|         | 一                                                                                                                                                                                                                      | 認識科學活動  | 相見歡與分組選幹部、介紹課程內容                         |
|         | 二                                                                                                                                                                                                                      | 彩虹試管    | 科學原理介紹、製作直立式彩虹試管(虹)                      |
|         | 三                                                                                                                                                                                                                      | 彩虹試管    | 科學原理介紹、製作直立式彩虹試管(霓)                      |
|         | 四                                                                                                                                                                                                                      | 彩虹試管    | pH值與酸鹼指示劑的變色：彩虹色盤                        |
|         | 五                                                                                                                                                                                                                      | 彩虹試管    | 彩虹、消失的彩虹與彩虹的重現                           |
|         | 六                                                                                                                                                                                                                      | 彩虹試管、色盤 | 表達分享                                     |
|         | 七                                                                                                                                                                                                                      | 鑑識科學    | 鑑識科學簡介，包含指紋現形、血跡反應                       |
|         | 八                                                                                                                                                                                                                      | 鑑識科學    | 指紋鑑識的方法，以粉末法和三秒膠法切入主題，學生進一步討論如何得到清晰可見的指紋 |
|         | 九                                                                                                                                                                                                                      | 鑑識科學    | 經由過氧化氫之分解反應，觀察觸媒的催化效應，並探討影響酵素活性之因素。      |
|         | 十                                                                                                                                                                                                                      | 鑑識科學    | 血跡反應實驗之探討                                |
|         | 十一                                                                                                                                                                                                                     | 鑑識科學    | 完成實驗報告和日誌並分享                             |
|         | 十二                                                                                                                                                                                                                     | 璀璨寶石    | 簡介溶液種類和結晶、非結晶之差異                         |
|         | 十三                                                                                                                                                                                                                     | 璀璨寶石    | 調整變因找出結晶最漂亮的條件                           |
|         | 十四                                                                                                                                                                                                                     | 璀璨寶石    | 以最佳化實驗進行限時大排戰                            |
|         | 十五                                                                                                                                                                                                                     | 璀璨寶石    | 學生呈現美麗的晶體，完成實驗報告和日誌並分享                   |
|         | 十六                                                                                                                                                                                                                     | 璀璨寶石    | 延續對晶體的認識，探討過飽和溶液的吸熱與放熱                   |
|         | 十七                                                                                                                                                                                                                     | 璀璨寶石    | 利用天氣瓶討論晶體形成與溶解度之間的關係                     |
|         | 十八                                                                                                                                                                                                                     | 表達分享    | 學期課程成果發表                                 |
|         | 十九                                                                                                                                                                                                                     |         |                                          |
|         | 二十                                                                                                                                                                                                                     |         |                                          |
|         | 二十一                                                                                                                                                                                                                    |         |                                          |
| 二十二     |                                                                                                                                                                                                                        |         |                                          |

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| 學習評量： | 學習態度 10%<br>實驗報告、日誌、學習單 50%<br>成果發表40%（創意實驗錄影3分鐘，海報口頭發表，自評與互評成績） |
| 備註：   |                                                                  |

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| 課程名稱：   | 中文名稱：心理學(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                  |
|         | 英文名稱：Psychology II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                  |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 學分總數：3                           |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
| 議題融入：   | 生涯規劃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                  |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                  |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                  |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                  |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                  |
| 學習目標：   | 1. Explore and understand the origin and basic goals of psychology.<br>2. Become familiar with various approaches used in psychology, including behaviorism, functionalism, psychoanalysis, humanism, and others.<br>3. Understand the two basic types of behavior conditioning - classical and operant.<br>4. Explore thought and memory.<br>5. Review group dynamics.<br>6. Examine the world of abnormal psychology.<br>7. Become familiar with various theories concerning psychosocial development.<br>8. Explore the world of sleep and dreams.<br>9. Have the opportunity to research a psychological or para-psychological subject of their choosing and present it to the other students.<br>10. Keep an insightful journal about relative issues concerning students and people today. |                                  |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題                            |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 8 Thinking and Intelligence |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 8 Thinking and Intelligence |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 8 Thinking and Intelligence |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 9 Motivation and Emotion    |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 9 Motivation and Emotion    |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 9 Motivation and Emotion    |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 10 Human Development        |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 10 Human Development        |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 10 Human Development        |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 11 Personality Theories     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                  |

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|       | 十一  | Unit 11 Personality Theories | Study the Humanistic approaches to personality and their applications                                                                                        |
|       | 十二  | Unit 11 Personality Theories | Explore and evaluate Trait Theory and Social Cognitive Theory.                                                                                               |
|       | 十三  | Unit 12 Mental Disorders     | Distinguish between abnormal behavior and mental illness                                                                                                     |
|       | 十四  | Unit 12 Mental Disorders     | Explore various types of mental illness and the challenges they pose to individuals<br>Debate the impact and merits of labels                                |
|       | 十五  | Unit 13 Mental Health        | Study various ways of treating mental illnesses and their merits<br>Explore ethical issues related to treatment of mental illness                            |
|       | 十六  | Unit 14 Social Psychology    | Explore how biases and stereotypes impact how we perceive and react to others<br>Study how social situations or groups influence the behavior of individuals |
|       | 十七  | Unit 15 It's the End         | Explore psychology careers<br>Reflect on what we have learned and how we will use it in our lives                                                            |
|       | 十八  | Wrap-Up                      | Reflections and Discussions                                                                                                                                  |
|       | 十九  |                              |                                                                                                                                                              |
|       | 二十  |                              |                                                                                                                                                              |
|       | 二十一 |                              |                                                                                                                                                              |
|       | 二十二 |                              |                                                                                                                                                              |
| 學習評量： |     | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                                                                                                                              |
| 備註：   |     | 全英文授課                        |                                                                                                                                                              |



|             |                                                                                                                                        |        |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|--------|
| 課程名稱：       | 中文名稱：日語4                                                                                                                               |        |
|             | 英文名稱：Japanese 4                                                                                                                        |        |
| 授課年段：       | 二下                                                                                                                                     | 學分總數：2 |
| 課程屬性：       | 第二外國語文                                                                                                                                 |        |
| 議題融入：       | 多元文化                                                                                                                                   |        |
| 師資來源：       | 外聘(其他)                                                                                                                                 |        |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進,                                                                                                                    |        |
|             | B溝通互動：B1.符號運用與溝通表達,                                                                                                                    |        |
|             | C社會參與：C3.多元文化與國際理解,                                                                                                                    |        |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |        |
| 學習目標：       | 1. 提升日語會話能力：能在日常情境中嘗試使用日語。<br>2. 理解基本日語：掌握常用語彙與日常生活中的基礎語法。<br>3. 適應多種學習需求：適合日常交流、旅遊、學術預備等各種場合。                                         |        |
| 教學大綱：       | 週次/<br>序                                                                                                                               | 單元/主題  |
|             | 一                                                                                                                                      | 復習     |
|             | 二                                                                                                                                      | 復習     |
|             | 三                                                                                                                                      | 第13課   |
|             | 四                                                                                                                                      | 第13課   |
|             | 五                                                                                                                                      | 第13課   |
|             | 六                                                                                                                                      | 第14課   |
|             | 七                                                                                                                                      | 第14課   |
|             | 八                                                                                                                                      | 第14課   |
|             | 九                                                                                                                                      | 標準問題集  |
|             | 十                                                                                                                                      | 第15課   |
|             | 十一                                                                                                                                     | 第15課   |
|             | 十二                                                                                                                                     | 第15課   |
|             | 十三                                                                                                                                     | 第16課   |
|             | 十四                                                                                                                                     | 第16課   |
|             | 十五                                                                                                                                     | 第16課   |
|             | 十六                                                                                                                                     | 復習D    |
|             | 十七                                                                                                                                     | 標準問題集  |
|             | 十八                                                                                                                                     | 測驗     |
|             | 十九                                                                                                                                     |        |
|             | 二十                                                                                                                                     |        |

學分總數：2

A自主行動：A1.身心素質與自我精進,

B溝通互動：B1.符號運用與溝通表達,

C社會參與：C3.多元文化與國際理解,

1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,

1. 提升日語會話能力：能在日常情境中嘗試使用日語。  
2. 理解基本日語：掌握常用語彙與日常生活中的基礎語法。  
3. 適應多種學習需求：適合日常交流、旅遊、學術預備等各種場合。

週次/  
序

單元/主題

內容綱要

一

復習

第9~10課

二

復習

第11~12課

三

第13課

課文：“請分開算” p. 18~27  
句型練習A(文法)

四

第13課

課文：“請分開算”  
單字/相關單字詞彙/例文/會話

五

第13課

課文：“請分開算”  
練習B、C/聽力. 造句練習

六

第14課

課文：“麻煩到綠町” p. 28~37  
句型練習A-1(文法)

七

第14課

課文：“麻煩到綠町”  
練習A-2~4(文法)/單字/相關單字詞彙

八

第14課

課文：“麻煩到綠町”  
例文/會話/練習B、C/聽力. 造句練習

九

標準問題集

第13~14集

十

第15課

課文：“有哪些家人呢?” p. 38~47  
句型練習A(文法)

十一

第15課

課文：“有哪些家人呢?”  
單字/相關單字詞彙/例文/會話

十二

第15課

課文：“有哪些家人呢?”  
練習B、C/聽力. 造句練習

十三

第16課

課文：“請教我使用方法” p. 48~57  
句型練習A(文法)

十四

第16課

課文：“請教我使用方法”  
單字/相關單字詞彙/例文/會話

十五

第16課

課文：“請教我使用方法”  
練習B、C/聽力. 造句練習

十六

復習D

第13~16課復習p. 58~59+小測驗

十七

標準問題集

第15~16集

十八

測驗

課堂測驗(13~16課)

十九

二十

|       |                            |  |  |
|-------|----------------------------|--|--|
|       | 二十一                        |  |  |
|       | 二十二                        |  |  |
| 學習評量： | 課堂參與及實作50%、平時表現25%、期末測驗25% |  |  |
| 備註：   |                            |  |  |

【備查版】

【備查版】

|             |                                                                                                                                                                                                                                                            |                         |                                                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 半導體原理與製造概論                                                                                                                                                                                                                                           |                         |                                                                                    |
|             | 英文名稱： Introduction of Semiconductor Principles and Manufactures                                                                                                                                                                                            |                         |                                                                                    |
| 授課年段：       | 二下、三下                                                                                                                                                                                                                                                      | 學分總數： 2                 |                                                                                    |
| 課程屬性：       | 專題探究                                                                                                                                                                                                                                                       |                         |                                                                                    |
| 議題融入：       | 科技                                                                                                                                                                                                                                                         |                         |                                                                                    |
| 師資來源：       | 跨校協同                                                                                                                                                                                                                                                       |                         |                                                                                    |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                                         |                         |                                                                                    |
|             | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                                                                                                                                         |                         |                                                                                    |
|             | C社會參與： C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                                         |                         |                                                                                    |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 ,                                                                                                                                                                                      |                         |                                                                                    |
| 學習目標：       | 本課程以高中物理為基礎，依循半導體歷史的發展脈絡，著重在其概念的理解與建立，避免過度涉入理論或數學公式。目標在於幫助學生了解物理學家的思考方式與科技的發展過程並且：<br>(1) 了解量子理論的產生過程及其主要觀念<br>(2) 經由量子理論，了解半導體材料的獨特性質<br>(3) 利用半導體材料的特性，了解幾種半導體元件(包括二極體、電晶體、積體電路、發光二極體及太陽電池等)的基本原理及製作方式<br>(4) 基於半導體元件及積體電路的製作方式，了解半導體廠製造管理的重要概念及半導體產業的現況 |                         |                                                                                    |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                   | 單元/主題                   | 內容綱要                                                                               |
|             | 一                                                                                                                                                                                                                                                          | 20世紀初的物理難題              | 討論20世紀初物理學家如何處理一些古典物理無法解釋的物理現象，進而導引出物理量被量子化(例如能量必須做不連續性變化)的假設以及波粒二重性的出現。           |
|             | 二                                                                                                                                                                                                                                                          | 原子的基本結構                 | 介紹物理學家如何利用精心設計的實驗逐步了解原子的結構(例如電子及原子核的存在)，並說明波爾原子模型如何解釋古典物理無法解釋的原子輻射光譜。              |
|             | 三                                                                                                                                                                                                                                                          | 20世紀最重要的物理發展:量子理論的出現    | 介紹量子理論的第一個假說(德布羅伊假說)及量子力學的第一個公式(薛丁格方程式)，並解釋為何在解量子力學問題時會出現能量量子化(即能量做不連續性變化)的現象及量子態。 |
|             | 四                                                                                                                                                                                                                                                          | 量子理論應用在原子結構上            | 將量子理論應用在氫原子，進而推衍出原子中電子分布的s軌域、p軌域、d軌域等量子態及各量子態對應的能階。                                |
|             | 五                                                                                                                                                                                                                                                          | 原子如何堆積成固體及晶體            | 介紹各種原子鍵結方式(包括離子鍵、金屬鍵及共價鍵等)，進而說明晶體與非晶體的不同、及晶體的形成模式。                                 |
|             | 六                                                                                                                                                                                                                                                          | 能帶的出現與固體電性的關係           | 以定量方式描述在晶體中形成能帶的過程，討論能帶與固體電性的關係(包括導體、半導體及絕緣體間的能帶結構有何不同)                            |
|             | 七                                                                                                                                                                                                                                                          | 半導體為什麼可以做出導體及絕緣體做不出來的元件 | 說明雜質在純淨半導體材料中對導電特性的影響，進而介紹n型半導體及p型半導體。                                             |
|             | 八                                                                                                                                                                                                                                                          | 二極體性質與結構                | 介紹二極體工作原理與二極體電路。                                                                   |
|             | 九                                                                                                                                                                                                                                                          | 半導體元件怎樣做出開關及放大訊號的功能     | 介紹電晶體的工作原理與訊號放大的方式。                                                                |
|             | 十                                                                                                                                                                                                                                                          | 雙極性接面電晶體                | 介紹BJT的三種放大電路與實作訊號放大電路。                                                             |
|             | 十一                                                                                                                                                                                                                                                         | 如何將半導體元件做到極小            | 介紹基本的半導體元件製作程序，解釋為何積體電路可以做到極小、以及為何積體電路製程要求極高的原物料純淨度及環境清潔度。                         |

|       |                               |                             |                                                                     |
|-------|-------------------------------|-----------------------------|---------------------------------------------------------------------|
|       | 十二                            | 專題探究：半導體工廠長什麼樣子             | 學生以資料搜尋、訪談等方式，在課堂中介紹從半導體的製造流程、半導體工廠的介紹，到半導體的供應鏈。                    |
|       | 十三                            | 專題探究：高科技製造的重要性              | 學生以資料搜尋、訪談等方式，在課堂中介紹高科技製造對世界以及對台灣的重要性，談到高科技製造要怎麼管理？管理什麼？怎樣知道管理得好不好？ |
|       | 十四                            | 專題探究：半導體廠的製造管理在做什麼          | 學生以資料搜尋、訪談等方式，在課堂中介紹半導體廠的製造管理，實際上是怎麼做的？                             |
|       | 十五                            | 專題探究：資訊科技、人工智慧與物聯網在半導體製造的應用 | 學生以資料搜尋、訪談等方式，在課堂中介紹新興技術(如資訊科技、物聯網、人工智慧等)在半導體製造方面的應用。               |
|       | 十六                            | 專題探究：半導體相關產業的未來挑戰           | 學生以資料搜尋、訪談等方式，在課堂中介紹半導體相關產業的未來挑戰，所需要的人才，以及人才的職涯發展。                  |
|       | 十七                            | 期末成果製作                      | 學生將本學期所學，將半導體基本概念乃至科技人才的出路規劃進行整合，製作一幅海報說明整個半導體產業的基礎與發展。             |
|       | 十八                            | 期末成果製作                      | 學生將本學期所學，將半導體基本概念乃至科技人才的出路規劃進行整合，製作一幅海報說明整個半導體產業的基礎與發展。             |
|       | 十九                            |                             |                                                                     |
|       | 二十                            |                             |                                                                     |
|       | 二十一                           |                             |                                                                     |
|       | 二十二                           |                             |                                                                     |
| 學習評量： | 學習評量 課堂參與度20%、專題探究50%、期末成果30% |                             |                                                                     |
| 備註：   |                               |                             |                                                                     |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：行銷：零售與服務產業(下)                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                    |
|             | 英文名稱：Marketing: Retail and Service II                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                    |
| 授課年段：       | 二下                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 學分總數：3                                                                                                                             |
| 課程屬性：       | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                    |
| 議題融入：       | 科技、資訊                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                    |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                    |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                    |
|             | B溝通互動：B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                    |
|             | C社會參與：C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                    |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                           |                                                                                                                                    |
| 學習目標：       | This course focuses on marketing activities in the retail and service sectors. You will examine trends and global influences on marketing decisions, and will learn about the importance of customer service in developing a customer base and maintaining customer loyalty. Through hands-on learning, you will develop personal selling and information technology skills that will prepare you for a variety of marketing-related positions in the workplace. |                                                                                                                                    |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 單元/主題                                                                                                                              |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 11: Making technology work                                                 |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 12: What kind of business is that?                                         |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 12: What kind of business is that?                                         |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 13: Acting responsibly: Issues, ethics, and the environment                |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 13: Acting responsibly: Issues, ethics, and the environment                |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 14: Keeping track of inventory                                             |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 14: Keeping track of inventory                                             |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 15: Selling to Canada and the world                                        |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 3 Trends in retail and service marketing<br>Lesson 15: Selling to Canada and the world                                        |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit 4 Marketing for success in the retail and service sectors<br>Lesson 16: Making it all look good                               |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 4 Marketing for success in the retail and service sectors<br>Lesson 17: The people factor                                     |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 4 Marketing for success in the retail and service sectors<br>Lesson 18: The customer is always right                          |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 4 Marketing for success in the retail and service sectors<br>Lesson 18: The customer is always right                          |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 4 Marketing for success in the retail and service sectors<br>Lesson 19: Developing your skill set                             |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 4 Marketing for success in the retail and service sectors<br>Lesson 19: Developing your skill set                             |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 4 Marketing for success in the retail and service sectors<br>Lesson 20: Career search strategies and employment opportunities |

|                                   |     |               |                                |
|-----------------------------------|-----|---------------|--------------------------------|
|                                   | 十七  | Final Project | Project Presentations          |
|                                   | 十八  | Wrap-Up       | Reflections and Final Thoughts |
|                                   | 十九  |               |                                |
|                                   | 二十  |               |                                |
|                                   | 二十一 |               |                                |
|                                   | 二十二 |               |                                |
| 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |     |               |                                |
| 備註：全英文授課                          |     |               |                                |



|             |                                                                                                                                        |                                                                                             |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 西班牙語4                                                                                                                            |                                                                                             |
|             | 英文名稱： Spanish 4                                                                                                                        |                                                                                             |
| 授課年段：       | 二下                                                                                                                                     | 學分總數： 2                                                                                     |
| 課程屬性：       | 第二外國語文                                                                                                                                 |                                                                                             |
| 議題融入：       | 多元文化、國際教育                                                                                                                              |                                                                                             |
| 師資來源：       | 外聘(其他)                                                                                                                                 |                                                                                             |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進,                                                                                                                   |                                                                                             |
|             | B溝通互動： B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                     |                                                                                             |
|             | C社會參與： C3.多元文化與國際理解,                                                                                                                   |                                                                                             |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                                             |
| 學習目標：       | 1. 西班牙文發音、音節、重音規則。<br>2. 基礎句型及語法概念介紹。<br>3. 日常生活表達，包含問候、自我介紹、方位描述、數字、購物、日常習慣等。<br>4. 西語國家文化認識。<br>5. 加強日常生活單字的練習，以擴展學生習得的單字量。          |                                                                                             |
| 教學大綱：       | 週次/<br>序                                                                                                                               | 單元/主題                                                                                       |
|             | 一                                                                                                                                      | 天氣氣候                                                                                        |
|             | 二                                                                                                                                      | 你正在做什麼？                                                                                     |
|             | 三                                                                                                                                      | 自然景觀                                                                                        |
|             | 四                                                                                                                                      | 旅遊經驗分享I                                                                                     |
|             | 五                                                                                                                                      | 旅遊經驗分享II                                                                                    |
|             | 六                                                                                                                                      | 這是誰的？+ 文化饗宴                                                                                 |
|             | 七                                                                                                                                      | 大眾義務                                                                                        |
|             | 八                                                                                                                                      | 日常飲食                                                                                        |
|             | 九                                                                                                                                      | 食物篇                                                                                         |
|             | 十                                                                                                                                      | 你今天早上做了什麼？                                                                                  |
|             |                                                                                                                                        | 內容綱要                                                                                        |
|             |                                                                                                                                        | 天氣氣候相關詞彙<br>表達世界各地天氣如何<br>冬夏兩季氣候差異比較<br>繪製一城市各地區氣象圖表                                        |
|             |                                                                                                                                        | 現在進行式<br>現在分詞: - ando / - endo<br>詢問/回答現在正在做什麼<br>疑問句型: ¿Qué estás haciendo?<br>現在進行式與現在式差異 |
|             |                                                                                                                                        | 自然景觀相關詞彙<br>討論台灣與西班牙自然景觀異同<br>分組活動:2人一組，設計一趟登山之旅                                            |
|             |                                                                                                                                        | 疑問句型: ¿Que tienes que llevar a un viaje?<br>簡單過去式<br>同學分享過往的旅遊經驗                            |
|             |                                                                                                                                        | 簡單過去式-進階<br>分組活動:2人一組，設計一趟超讚的旅行，之後大家憶起投票選出最棒的行程                                             |
|             |                                                                                                                                        | 所有格副詞<br>疑問句型:¿ De quién es esto?<br>西班牙嘉年華慶典                                               |
|             |                                                                                                                                        | 句型: hay que<br>表達普世須遵守的規範、義務<br>hay que與tener que用法差異                                       |
|             |                                                                                                                                        | 日常飲食相關詞彙<br>表達吃飯時間<br>分組活動:2人一組，設計餐廳菜單                                                      |
|             |                                                                                                                                        | 各種食物及其烹煮方式<br>最喜歡/不喜歡的食物<br>分組活動:3人一組，繪製飲食金字塔                                               |
|             |                                                                                                                                        | 現在完成式I<br>現在完成式的時間指示詞<br>句型:動詞 Haber+過去分詞                                                   |



|                                      |            |                                                                                              |
|--------------------------------------|------------|----------------------------------------------------------------------------------------------|
|                                      |            | 表達今天早上做了什麼<br>疑問句型：¿Qué has hecho esta mañana?                                               |
| 十一                                   | 你這個月做了些什麼？ | 現在完成式II<br>不規則過去分詞<br>疑問句型：¿Qué has hecho este mes?<br>學生寫下這個月做了哪些事，與同學分享之                   |
| 十二                                   | 過去式對比      | 過去簡單式與現在完成式的差異<br>句型比較：Que has hecho esta mañana ?與 ¿Qué hiciste ayer?<br>過去簡單式與現在完成式的動詞變化練習 |
| 十三                                   | 身體部位       | 身體部位相關詞彙<br>活動：老師說出某身體部位的單字，學生碰觸自己相對應的身體部位                                                   |
| 十四                                   | 動物篇        | 家禽與野生動物詞彙<br>¿Qué propiedades tienen?<br>畫出一隻寵物，並跟同學以西文介紹之                                   |
| 十五                                   | 總複習        | 第1~14週學習內容總複習                                                                                |
| 十六                                   | 影片製作I      | 令我印象最深刻的旅遊經驗（含簡單介紹所去的旅遊景點+圖/照片），片長約3分鐘                                                       |
| 十七                                   | 影片製作II     | 令我印象最深刻的旅遊經驗（含簡單介紹所去的旅遊景點+圖/照片），片長約3分鐘                                                       |
| 十八                                   | 成果發表/再見歡   | 影片賞析                                                                                         |
| 十九                                   |            |                                                                                              |
| 二十                                   |            |                                                                                              |
| 二十一                                  |            |                                                                                              |
| 二十二                                  |            |                                                                                              |
| 學習評量：課堂互動20%，小組合作20%，作品產出30%，作業評量30% |            |                                                                                              |
| 備註：                                  |            |                                                                                              |

|         |                                                                                                                                        |                      |                                                                                                                            |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 走遊世界(下)                                                                                                                          |                      |                                                                                                                            |
|         | 英文名稱： Tourism Geography                                                                                                                |                      |                                                                                                                            |
| 授課年段：   | 二下                                                                                                                                     | 學分總數： 2              |                                                                                                                            |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                            |                      |                                                                                                                            |
| 議題融入：   | 性別平等、人權、法治、家庭教育、多元文化、閱讀素養、國際教育、原住民族教育                                                                                                  |                      |                                                                                                                            |
| 師資來源：   | 跨校協同                                                                                                                                   |                      |                                                                                                                            |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                       |                      |                                                                                                                            |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                     |                      |                                                                                                                            |
|         | C社會參與： C1.道德實踐與公民意識, C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                       |                      |                                                                                                                            |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                      |                                                                                                                            |
| 學習目標：   | 1.學生能說明觀光地理（Tourism Geography）的意義。<br>2.學生能使用app收集、規劃旅遊行程。<br>3.學生可以透過影像分享,及欣賞他人成果。<br>4.學生能參與小組討論，並完成國際旅遊規劃。                          |                      |                                                                                                                            |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題                | 內容綱要                                                                                                                       |
|         | 一                                                                                                                                      | 課程說明與介紹、導論：咖啡的走遊世界之旅 | 介紹本學期課程目標、作業報告說明，及完成小組分組。並從「咖啡」的角度，初探世界各地的咖啡文化。                                                                            |
|         | 二                                                                                                                                      | 走遊世界1-澳洲咖啡           | 1-1. 導學：介紹歐洲殖民地咖啡—澳洲咖啡<br>1-2. 探究實作：澳洲咖啡鑑賞，進而探究澳洲咖啡的發跡地，及其文化時空發展歷程與特色。<br>1-3. 議題思辨：從經濟全球化與在地化角度，分析澳洲咖啡文化衍生的經濟效益與社會變遷。     |
|         | 三                                                                                                                                      | 走遊世界2-越南咖啡           | 2-1. 導學：介紹歐洲殖民地咖啡—越南咖啡<br>2-2. 探究實作：越南咖啡鑑賞，進而探究越南咖啡的發跡地，及其文化時空發展歷程與特色。<br>2-3. 議題思辨：從經濟全球化與在地化角度，分析越南咖啡文化衍生的經濟效益與社會變遷。     |
|         | 四                                                                                                                                      | 走遊世界3-墨西哥咖啡          | 3-1. 導學：介紹歐洲殖民地咖啡—墨西哥咖啡<br>3-2. 探究實作：墨西哥咖啡鑑賞，進而探究墨西哥咖啡的發跡地，及其文化時空發展歷程與特色。<br>3-3. 議題思辨：從經濟全球化與在地化角度，分析墨西哥咖啡文化衍生的經濟效益與社會變遷。 |
|         | 五                                                                                                                                      | 走遊世界4-星馬咖啡           | 4-1. 導學：介紹歐洲殖民地咖啡—星馬咖啡<br>4-2. 探究實作：星馬咖啡鑑賞，進而探究星馬咖啡的發跡地，及其文化時空發展歷程與特色。<br>4-3. 議題思辨：從經濟全球化與在地化角度，分析星馬咖啡文化衍生的經濟效益與社會變遷。     |
|         | 六                                                                                                                                      | 走遊世界5-印尼咖啡           | 5-1. 導學：介紹歐洲殖民地咖啡—印尼咖啡<br>5-2. 探究實作：印尼咖啡鑑賞，進而探究印尼咖啡的發跡地，及其文化時空發展歷程與特色。<br>5-3. 議題思辨：從經濟全球化與在地化角度，分析印尼咖啡文化衍生的經濟效益與社會變遷。     |
|         | 七                                                                                                                                      | 走遊世界6-土耳其咖啡          | 6-1. 導學：介紹在地化咖啡—土耳其咖啡<br>6-2. 探究實作：土耳其咖啡鑑賞，進而探究土耳其咖啡的發跡地，及其文化時空發展歷程與特色。<br>6-3. 議題思辨：從經濟全球化與在地化角度，分析土耳其咖啡文化衍生的經濟效益與社會變遷。   |

|  |                                                                                          |                         |                                                                                                                              |
|--|------------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------|
|  | 八                                                                                        | 走遊世界7-義式咖啡              | 7-1. 導學：介紹在地化咖啡－義式咖啡<br>7-2. 探究實作：義式咖啡鑑賞，進而探究義式咖啡的發跡地，及其文化時空發展歷程與特色。<br>7-3. 議題思辨：從經濟全球化與在地化角度，分析土耳其咖啡文化衍生的經濟效益與社會變遷。        |
|  | 九                                                                                        | 走遊世界8-芬蘭起司咖啡            | 8-1. 導學：介紹在地化咖啡－芬蘭起司咖啡<br>8-2. 探究實作：芬蘭起司咖啡鑑賞，進而探究芬蘭起司咖啡的發跡地，及其文化時空發展歷程與特色。<br>8-3. 議題思辨：從經濟全球化與在地化角度，分析芬蘭起司咖啡文化衍生的經濟效益與社會變遷。 |
|  | 十                                                                                        | 走遊世界9-愛爾蘭咖啡             | 9-1. 導學：介紹在地化咖啡－愛爾蘭咖啡<br>9-2. 探究實作：愛爾蘭咖啡鑑賞，進而探究愛爾蘭咖啡的發跡地，及其文化時空發展歷程與特色。<br>9-3. 議題思辨：從經濟全球化與在地化角度，分析愛爾蘭咖啡文化衍生的經濟效益與社會變遷。     |
|  | 十一                                                                                       | 市場走遊小達人(1)              | 以學校周遭的咖啡店為例，小組進行咖啡市場調查，觀察市面上的咖啡銷售量、顧客偏好，進而分析數據背後的人文意義。                                                                       |
|  | 十二                                                                                       | 市場走遊小達人(2)              | 根據咖啡市場調查結果，進行咖啡文化分析與實察探究成果分享。                                                                                                |
|  | 十三                                                                                       | 用消費改變世界 - FAIRTRADE (1) | 介紹公平貿易 (FAIRTRADE) 的緣起、運作推廣，及其在世界各地所帶動的社會改變與發酵。                                                                              |
|  | 十四                                                                                       | 用消費改變世界 - FAIRTRADE (2) | 邀請國際公平貿易組織臺灣分會 (FairtradeTaiwan)，分享公平貿易在台灣的運作現況，進而省思高中生的公平貿易消費力的實踐可能性。                                                       |
|  | 十五                                                                                       | 心動與行動的咖啡公民社會行動參與        | 小組為單位，挑選某一咖啡文化，結合公平貿易精神，設計「咖啡行銷企劃書」，落實社會公平正義的實踐，及展現在地文化精神。                                                                   |
|  | 十六                                                                                       | 心動與行動的咖啡公民社會行動參與        | 小組為單位，挑選某一咖啡文化，結合公平貿易精神，設計「咖啡行銷企劃書」，落實社會公平正義的實踐，及展現在地文化精神。                                                                   |
|  | 十七                                                                                       | 咖啡的走遊世界之旅成果分享           | 小組行銷企劃書成果分享，並進行組間、組內互評與回饋、個人自評、師生回饋。                                                                                         |
|  | 十八                                                                                       | 咖啡的走遊世界之旅成果分享           | 小組行銷企劃書成果分享，並進行組間、組內互評與回饋、個人自評、師生回饋。                                                                                         |
|  | 十九                                                                                       |                         |                                                                                                                              |
|  | 二十                                                                                       |                         |                                                                                                                              |
|  | 二十一                                                                                      |                         |                                                                                                                              |
|  | 二十二                                                                                      |                         |                                                                                                                              |
|  | 學習評量：                                                                                    |                         |                                                                                                                              |
|  | 1. 課堂學習單 20%<br>2. 咖啡市場調查成果 (含問卷) 25%<br>3. 咖啡行銷企劃書 40%<br>4. 小組評分表 (含自評表、組內互評、組間互評) 15% |                         |                                                                                                                              |
|  | 備註：                                                                                      |                         |                                                                                                                              |

|             |                                                                                                                                                                                                       |                         |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| 課程名稱：       | 中文名稱： 法語4                                                                                                                                                                                             |                         |
|             | 英文名稱： French 4                                                                                                                                                                                        |                         |
| 授課年段：       | 二下                                                                                                                                                                                                    | 學分總數： 2                 |
| 課程屬性：       | 第二外國語文                                                                                                                                                                                                |                         |
| 議題融入：       | 多元文化、國際教育                                                                                                                                                                                             |                         |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                |                         |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進,                                                                                                                                                                                  |                         |
|             | B溝通互動： B1.符號運用與溝通表達,                                                                                                                                                                                  |                         |
|             | C社會參與： C3.多元文化與國際理解,                                                                                                                                                                                  |                         |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                |                         |
| 學習目標：       | 1. 基本生活對話，同時透過法語世界的文化介紹豐富學生的視野。<br>2. 提升學生接觸法國文化的機會，培養學生理解與欣賞多元文化的能力。<br>3. 培養學生將課程中學到的句型，靈活應用於日常對話中的能力。<br>4. 建立基本日常生活單字及句型，如：問路、請教、美食、在餐廳、在郵局、敘述、旅行、住宿、理髮廳、美容院、大眾運輸交通工具、在海關、購物。<br>5. 習得約450字的法語字彙。 |                         |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                              | 單元/主題                   |
|             | 一                                                                                                                                                                                                     | New semester warm up    |
|             | 二                                                                                                                                                                                                     | Grammar I               |
|             | 三                                                                                                                                                                                                     | Functional language I   |
|             | 四                                                                                                                                                                                                     | Grammar II              |
|             | 五                                                                                                                                                                                                     | Functional language II  |
|             | 六                                                                                                                                                                                                     | Grammar III             |
|             | 七                                                                                                                                                                                                     | Semester Project I      |
|             | 八                                                                                                                                                                                                     | Semester Project II     |
|             | 九                                                                                                                                                                                                     | Review                  |
|             | 十                                                                                                                                                                                                     | French Culture I        |
|             | 十一                                                                                                                                                                                                    | Functional language III |
|             | 十二                                                                                                                                                                                                    | Grammar IV              |
|             | 十三                                                                                                                                                                                                    | Functional language IV  |
|             | 十四                                                                                                                                                                                                    | Grammar V               |
|             | 十五                                                                                                                                                                                                    | Functional language V   |
|             | 十六                                                                                                                                                                                                    | Semester Project III    |
|             | 十七                                                                                                                                                                                                    | Project 期末發表準備          |
|             | 十八                                                                                                                                                                                                    | French Culture II       |
|             | 十九                                                                                                                                                                                                    |                         |
|             | 二十                                                                                                                                                                                                    |                         |
|             | 二十一                                                                                                                                                                                                   |                         |
|             | 二十二                                                                                                                                                                                                   |                         |
| 學習評量：       | 課堂互動 30 %、課堂實作 20 %、小組合作 30 %、作品產出20%                                                                                                                                                                 |                         |
| 備註：         |                                                                                                                                                                                                       |                         |

|         |                                                                                                            |             |                                                  |
|---------|------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------|
| 課程名稱：   | 中文名稱： 物理辯論(下)                                                                                              |             |                                                  |
|         | 英文名稱： Debates in Physics                                                                                   |             |                                                  |
| 授課年段：   | 二下                                                                                                         |             | 學分總數： 2                                          |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                |             |                                                  |
| 議題融入：   | 科技、資訊、閱讀素養                                                                                                 |             |                                                  |
| 師資來源：   | 外聘(其他)                                                                                                     |             |                                                  |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                         |             |                                                  |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                         |             |                                                  |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                       |             |                                                  |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |             |                                                  |
| 學習目標：   | 1. 能夠精確測量物理量<br>2. 能夠架設實驗裝置<br>3. 能夠自行設計實驗裝置<br>4. 培養完成科學報告的能力<br>5. 培養自主紀錄實驗過程的習慣                         |             |                                                  |
| 教學大綱：   | 週次/序                                                                                                       | 單元/主題       | 內容綱要                                             |
|         | 一                                                                                                          | 口說練習(一)     | 利用英文報告物理辯論PPT。                                   |
|         | 二                                                                                                          | 口說練習(二)     | 以物理辯論形式，與其他兩組組成reporter、opponent、reviewer，並輪流報告。 |
|         | 三                                                                                                          | 口說練習(三)     | 以物理辯論形式，與其他兩組組成reporter、opponent、reviewer，並輪流報告。 |
|         | 四                                                                                                          | 賽後檢討        | 將參與活動中的筆記整理，並檢視自己的報告內容與PPT。<br>紀錄心得並製作學習歷程。      |
|         | 五                                                                                                          | 5分鐘物理辯論(一)  | 將物理辯論的筆記整理後，以簡明易懂的方式表達，製作實驗說明影片。                 |
|         | 六                                                                                                          | 5分鐘物理辯論(二)  | 將物理辯論的筆記整理後，以簡明易懂的方式表達，製作實驗說明影片。                 |
|         | 七                                                                                                          | 5分鐘物理辯論(三)  | 將實驗內容整理成科展報告書的形式。                                |
|         | 八                                                                                                          | 5分鐘物理辯論(四)  | 製作實驗說明簡報。                                        |
|         | 九                                                                                                          | 物理辯論題目延伸(一) | 延伸實驗內容，將物理辯論中題目的實驗原理應用於其他的現象中，並進行探討。             |
|         | 十                                                                                                          | 物理辯論題目延伸(二) | 閱讀資料，了解相關實驗與科展研究，並找尋其中不足之處。                      |
|         | 十一                                                                                                         | 物理辯論題目延伸(三) | 確定主題後，進行實驗並觀察相關變因間的影響。                           |
|         | 十二                                                                                                         | 物理辯論題目延伸(四) | 進行實驗，獲取實驗數據。                                     |
|         | 十三                                                                                                         | 物理辯論題目延伸(五) | 進行實驗，獲取實驗數據。                                     |
|         | 十四                                                                                                         | 物理辯論題目延伸(六) | 進行實驗，獲取實驗數據。                                     |
|         | 十五                                                                                                         | 物理辯論題目延伸(七) | 進行數據分析，並解釋與物理間的關聯性。                              |
|         | 十六                                                                                                         | 物理辯論題目延伸(八) | 進行數據分析，並解釋與物理間的關聯性。                              |
|         | 十七                                                                                                         | 物理辯論題目延伸(九) | 完成科展報告書，並檢查格式是否正確。                               |
|         | 十八                                                                                                         | 期末統整        | 報告整學年的課程學習成果。                                    |
|         | 十九                                                                                                         |             |                                                  |
|         | 二十                                                                                                         |             |                                                  |
| 二十一     |                                                                                                            |             |                                                  |



|       |                                              |  |
|-------|----------------------------------------------|--|
|       | 二十<br>二                                      |  |
| 學習評量： | 1. 課堂報告投影片40%<br>2. 每周進度完成度20%<br>3. 實驗筆記40% |  |
| 備註：   |                                              |  |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                             |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：金融行銷入門                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                             |
|         | 英文名稱：Financial Marketing Management                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                             |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                     | 學分總數：3                                                                                                                                                                                      |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                             |
| 議題融入：   | 科技、資訊                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                             |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                             |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                             |
|         | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                             |
|         | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                             |
| 學習目標：   | The objective of this course is to train students to be familiar with the concepts and practical operations of financial commodity marketing and financial marketing ethics, and to train students to understand the market profiles of various financial commodities and corresponding commodity marketing strategies, including: securities market, bond market, options Markets, public offering markets, private equity markets, etc. |                                                                                                                                                                                             |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                                                       |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 01: Financial Marketing Concepts                                                                                                                                                       |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 02: Ethics in Financial Marketing                                                                                                                                                      |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 03: Market Information                                                                                                                                                                 |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 04: Marketing Research                                                                                                                                                                 |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 05: Introduction to Financial Products (Part One)                                                                                                                                      |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 06: Introduction to Financial Products (Part Two)                                                                                                                                      |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 07: Case Discussions                                                                                                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | 內容綱要                                                                                                                                                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Understand the foundational principles and key concepts of financial marketing. Analyze the role of financial marketing in the broader context of the financial industry.                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Explore ethical considerations and dilemmas specific to financial marketing. Develop an awareness of the importance of ethical behavior in building trust with clients and stakeholders.    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Learn methods for gathering and interpreting market information relevant to financial marketing. Apply market information to identify opportunities and challenges in the financial market. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Acquire knowledge of various marketing research methods and tools. Demonstrate the ability to design and conduct marketing research to inform strategic decision-making.                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Understand the characteristics and features of different financial products. Evaluate the suitability of various financial products for different investor needs and risk profiles.         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Deepen knowledge of a broader range of financial products and their market dynamics. Discuss the role of financial products in constructing a diversified investment portfolio.             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                           | Apply theoretical knowledge to real-world scenarios through case discussions. Enhance problem-solving skills by analyzing                                                                   |



|                                   |                                                          |                                                                                                                                                                                                                 |
|-----------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   |                                                          | g and discussing financial marketing challenges presented in cases.                                                                                                                                             |
| 八                                 | Unit 08: Case Discussions                                | Continue honing problem-solving skills through the analysis of complex financial marketing cases.<br>Foster critical thinking by evaluating different perspectives and potential solutions in case discussions. |
| 九                                 | Unit 09: Midterm Exam                                    | Demonstrate comprehension of key concepts covered in the course so far.<br>Apply theoretical knowledge to practical scenarios through midterm exam questions.                                                   |
| 十                                 | Unit 10: Financial Marketing Communication               | Explore effective communication strategies in the context of financial marketing.<br>Develop skills to communicate complex financial concepts in a clear and accessible manner.                                 |
| 十一                                | Unit 11: Emerging Channels in Financial Marketing        | Identify and analyze emerging channels for financial marketing.<br>Assess the opportunities and challenges associated with utilizing new channels in the financial industry.                                    |
| 十二                                | Unit 12: Consumer Buying Patterns                        | Examine the factors influencing consumer buying patterns in the financial sector.<br>Apply knowledge of consumer behavior to tailor marketing strategies to specific target audiences.                          |
| 十三                                | Unit 13: Post-Purchase Behavior of Consumers             | Analyze the post-purchase behavior of consumers in the financial industry.<br>Explore strategies to enhance customer satisfaction and loyalty in the post-purchase phase.                                       |
| 十四                                | Unit 14: Introduction to Financial Products (Part Three) | Extend understanding of additional financial products and their unique characteristics.<br>Evaluate the market positioning and potential applications of these financial products.                              |
| 十五                                | Unit 15: Introduction to Financial Products (Part Four)  | Explore advanced financial products and their specialized uses.<br>Assess the risk and return profiles of these products for strategic financial planning.                                                      |
| 十六                                | Final Project                                            | Presentation & Feedback                                                                                                                                                                                         |
| 十七                                |                                                          |                                                                                                                                                                                                                 |
| 十八                                |                                                          |                                                                                                                                                                                                                 |
| 十九                                |                                                          |                                                                                                                                                                                                                 |
| 二十                                |                                                          |                                                                                                                                                                                                                 |
| 二十一                               |                                                          |                                                                                                                                                                                                                 |
| 二十二                               |                                                          |                                                                                                                                                                                                                 |
| 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                          |                                                                                                                                                                                                                 |
| 備註：全英語授課                          |                                                          |                                                                                                                                                                                                                 |

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|---------|------------------------------------------------------------------------------------------------|---------|
| 課程名稱：   | 中文名稱： 英文新聞臺(下)                                                                                 |         |
|         | 英文名稱： Our Times News Channel                                                                   |         |
| 授課年段：   | 二下                                                                                             | 學分總數： 2 |
| 課程屬性：   | 跨領域/科目專題                                                                                       |         |
| 議題融入：   | 資訊、閱讀素養                                                                                        |         |
| 師資來源：   | 校內單科                                                                                           |         |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                             |         |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                             |         |
|         | C社會參與： C2.人際關係與團隊合作,                                                                           |         |
| 學生圖像：   | 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。,                                                              |         |
| 學習目標：   | 1. 著重於新聞影片播報(直播)的認識、規劃、訪問、拍攝與宣傳。<br>2. 認識新聞及寫作倫理。<br>3. 關心認識校園、在地與國際議題。<br>4. 產出靜心雜誌與靜心英語新聞影片。 |         |
| 教學大綱：   | 週次/序                                                                                           | 單元/主題   |
|         | 一                                                                                              | 廣播概述    |
|         | 二                                                                                              | 校園新聞規劃  |
|         | 三                                                                                              | 視頻      |
|         | 四                                                                                              | 視頻編輯    |
|         | 五                                                                                              | 視頻編輯    |
|         | 六                                                                                              | 校園新聞    |
|         | 七                                                                                              | 廣播 #1   |
|         | 八                                                                                              | 廣播 #1   |
|         | 九                                                                                              | 廣播 #1   |
|         | 十                                                                                              | 評估與反思   |
|         | 十一                                                                                             | 廣播 #2   |
|         | 十二                                                                                             | 廣播 #2   |
|         | 十三                                                                                             | 廣播 #2   |
|         | 十四                                                                                             | 評估與反思   |
|         | 十五                                                                                             | 廣播 #3   |
|         | 十六                                                                                             | 廣播 #3   |
|         | 十七                                                                                             | 廣播 #3   |
|         | 十八                                                                                             | 評估與反思   |
|         | 十九                                                                                             |         |
|         | 二十                                                                                             |         |
|         | 二十一                                                                                            |         |
|         | 二十二                                                                                            |         |
| 學習評量：   | 課堂互動、課堂實作、小組合作、專題規劃、新聞作品產出、<br>新聞作品印製播放<br>新聞撰寫 30% 影片錄製 30% 直播表現 20% 參與程度 20%                 |         |
| 備註：     |                                                                                                |         |

|         |                                                                                                                                                                                                                                                                                     |                                                 |                                                              |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 財務會計原則(下)                                                                                                                                                                                                                                                                     |                                                 |                                                              |
|         | 英文名稱： Financial Accounting Principles II                                                                                                                                                                                                                                            |                                                 |                                                              |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                               | 學分總數： 3                                         |                                                              |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                |                                                 |                                                              |
| 議題融入：   | 生涯規劃                                                                                                                                                                                                                                                                                |                                                 |                                                              |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                              |                                                 |                                                              |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                  |                                                 |                                                              |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                  |                                                 |                                                              |
|         | C社會參與： C1.道德實踐與公民意識,                                                                                                                                                                                                                                                                |                                                 |                                                              |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 ,                                                                                                                                                                                                               |                                                 |                                                              |
| 學習目標：   | Demonstrate an understanding of accounting principles and practices.<br>Demonstrate an understanding of the accounting cycle in a computerized environment for a service business and a merchandising business.<br>Demonstrate an understanding of ethics and issues in accounting. |                                                 |                                                              |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                | 單元/主題                                           | 內容綱要                                                         |
|         | 一                                                                                                                                                                                                                                                                                   | Overview of Financial Accounting Principles I   | Review key elements of Financial Accounting Principles I.    |
|         | 二                                                                                                                                                                                                                                                                                   | Partnerships and Corporations                   | Characteristics of partnerships.                             |
|         | 三                                                                                                                                                                                                                                                                                   | Partnerships and Corporations                   | Corporations.                                                |
|         | 四                                                                                                                                                                                                                                                                                   | Partnerships and Corporations                   | Dividend accounting.                                         |
|         | 五                                                                                                                                                                                                                                                                                   | Partnerships and Corporations                   | Dividend accounting.                                         |
|         | 六                                                                                                                                                                                                                                                                                   | Partnerships and Corporations                   | Income statement for a corporation.                          |
|         | 七                                                                                                                                                                                                                                                                                   | Partnerships and Corporations                   | Preparing a balance sheet.                                   |
|         | 八                                                                                                                                                                                                                                                                                   | Partnerships and Corporations                   | Preparing a balance sheet.                                   |
|         | 九                                                                                                                                                                                                                                                                                   | Financial analysis and decision making - Part A | Methods of financing.                                        |
|         | 十                                                                                                                                                                                                                                                                                   | Financial analysis and decision making - Part A | Methods of financing.                                        |
|         | 十一                                                                                                                                                                                                                                                                                  | Financial analysis and decision making - Part A | Financial analysis of a company and the cash flow statement. |
|         | 十二                                                                                                                                                                                                                                                                                  | Financial analysis and decision making - Part A | Financial analysis of a company and the cash flow statement. |
|         | 十三                                                                                                                                                                                                                                                                                  | Financial analysis and decision making - Part B | Analyzing annual reports.                                    |
|         | 十四                                                                                                                                                                                                                                                                                  | Financial analysis and decision making - Part B | Analyzing annual reports.                                    |
|         | 十五                                                                                                                                                                                                                                                                                  | Financial analysis and decision making - Part B | Financial analysis for decision making.                      |
|         | 十六                                                                                                                                                                                                                                                                                  | Financial analysis and decision making - Part B | Decision making in accounting.                               |
|         | 十七                                                                                                                                                                                                                                                                                  | Financial analysis and decision making - Part B | Decision making in accounting.                               |
|         | 十八                                                                                                                                                                                                                                                                                  | Course Review                                   | General Review of Financial Accounting Principles II         |
|         | 十九                                                                                                                                                                                                                                                                                  |                                                 |                                                              |
|         | 二十                                                                                                                                                                                                                                                                                  |                                                 |                                                              |
| 二十一     |                                                                                                                                                                                                                                                                                     |                                                 |                                                              |

|       |                                   |  |  |
|-------|-----------------------------------|--|--|
|       | 二十<br>二                           |  |  |
| 學習評量： | 課堂互動(15%)<br>作業(70%)<br>專題報告(15%) |  |  |
| 備註：   | 全英語授課                             |  |  |

【備查版】

【備查版】

|             |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                              |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：國際議題探究II                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                              |
|             | 英文名稱：Global Issues II                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                              |
| 授課年段：       | 二下                                                                                                                                                                                                                                                                                                                                                            | 學分總數：1                                                                                                                                                       |
| 課程屬性：       | 通識性課程                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                              |
| 議題融入：       | 國際教育                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                              |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                              |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                              |
|             | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                              |
|             | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                              |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                               |                                                                                                                                                              |
| 學習目標：       | Global Issues embraces a multidisciplinary approach in understanding the increasingly complex questions confronting the world today. Understanding global problems is the initial stage towards conceiving globalized solutions. This course capitalizes and centers on the privileged position of the youth in their ability to passion a better generation. |                                                                                                                                                              |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                        |
|             | 一                                                                                                                                                                                                                                                                                                                                                             | Unit 1 Global Financial Architecture<br>Global Financial Architecture<br>Managing international financial crises, strengthening<br>Domestic financial setups |
|             | 二                                                                                                                                                                                                                                                                                                                                                             | Unit 1 Global Financial Architecture<br>Global Financial Architecture<br>Money laundering financial abuses<br>Preparing for e-money.                         |
|             | 三                                                                                                                                                                                                                                                                                                                                                             | Unit 1 Global Financial Architecture<br>Global Financial Architecture<br>How strong are your financial systems?<br>Should the world go cashless?             |
|             | 四                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Illegal Drugs<br>Global Financial Architecture<br>How strong are your financial systems?<br>Should the world go cashless?                             |
|             | 五                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Illegal Drugs<br>How do we deal with drug problem?<br>How should we address drug problem?                                                             |
|             | 六                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Investment<br>Trade, Investment, and Competition Rules<br>Washington vs. Beijing Consensus                                                            |
|             | 七                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Investment<br>Trade, Investment, and Competition Rules<br>What, if any, are the benefits we get from these consensuses?                               |
|             | 八                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Investment<br>Trade, Investment, and Competition Rules<br>Are these mutually exclusive?                                                               |
|             | 九                                                                                                                                                                                                                                                                                                                                                             | Unit 4 Intellectual Property Rights<br>Trade, Investment, and Competition Rules<br>Are these mutually exclusive?                                             |
|             | 十                                                                                                                                                                                                                                                                                                                                                             | Unit 4 Intellectual Property Rights<br>How do we protect intellectual property?<br>Clash between developed and developing countries.                         |
|             | 十一                                                                                                                                                                                                                                                                                                                                                            | Unit 5 E-commerce Rules<br>Rise and fall of e-commerce                                                                                                       |
|             | 十二                                                                                                                                                                                                                                                                                                                                                            | Unit 5 E-commerce Rules<br>Identify fraudulent e-commerce activities.                                                                                        |
|             | 十三                                                                                                                                                                                                                                                                                                                                                            | Unit 5 E-commerce Rules<br>How do we build trust and confidence?<br>How do we protect ourselves from the internet?                                           |

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|-------|------------------------------|----------------------------|-----------------------------------------------------------------------------------|
|       | 十四                           | Unit 6 International Labor | International Labor and Migration Rules<br>What problems do migrant workers face? |
|       | 十五                           | Unit 6 International Labor | International Labor and Migration Rules<br>How should we treat migrant workers?   |
|       | 十六                           | Unit 6 International Labor | International Labor and Migration Rules<br>Appreciating migrant workers           |
|       | 十七                           | Final Project              | Presentation & Feedback                                                           |
|       | 十八                           | Wrap-Up                    | Reflections & Final Thoughts                                                      |
|       | 十九                           |                            |                                                                                   |
|       | 二十                           |                            |                                                                                   |
|       | 二十一                          |                            |                                                                                   |
|       | 二十二                          |                            |                                                                                   |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                            |                                                                                   |
| 備註：   | 全英語授課                        |                            |                                                                                   |

【備查版】

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                      |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 媒體研究(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |
|             | 英文名稱： Media Studies II                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      |
| 授課年段：       | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數： 3                                                                                              |
| 課程屬性：       | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      |
| 議題融入：       | 科技、資訊                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      |
|             | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |
|             | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      |
| 學習目標：       | This course emphasizes knowledge and skills that will enable you to understand media communication in the twenty-first century and to use media effectively and responsibly. Through analyzing the forms and messages of a variety of media works and audience responses to them, and through creating your own media works, you will develop critical thinking skills, aesthetic and ethical judgement, and skills in viewing, representing, listening, speaking, reading, and writing. |                                                                                                      |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 單元/主題                                                                                                |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 : Exploring values and ideologies<br>3.1 Who owns it                                          |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 : Exploring values and ideologies<br>3.2 Exploring careers in media                           |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 : Exploring values and ideologies<br>3.3 Investigating User Data                              |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 : Exploring values and ideologies<br>3.4 Creating your media origin story                     |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 : Exploring values and ideologies<br>3.5 What are values                                      |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 : Exploring values and ideologies<br>3.6 What are my values<br>3.7 What does my culture value |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 : Exploring values and ideologies<br>3.8 Stepping outside your comfort zone                   |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 : Exploring values and ideologies<br>4.1 Examining form and content                           |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 4 : Experiencing media<br>4.2 Investigating how form and content interact                       |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 4 : Experiencing media<br>4.3 Exploring social media                                            |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4 : Experiencing media<br>4.4 How does form influence content                                   |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4 : Experiencing media<br>4.5 Understanding media aesthetics                                    |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4 : Experiencing media<br>4.6 What is a remix                                                   |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4 : Experiencing media<br>4.7 Investigating cultural appropriation                              |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4 : Experiencing media<br>4.8 Remixing in the Wild                                              |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Wrap up<br>Questions and Discussions                                                                 |
|             | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |
|             | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |
|             | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |
|             | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |



|       |                              |  |  |
|-------|------------------------------|--|--|
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英語授課                        |  |  |

【備查版】

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|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：視覺藝術(下)                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                              |
|         | 英文名稱：Visual Arts II                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                              |
| 授課年段：   | 二下                                                                                                                                                                                                                                                                                                                                                                                                                                         | 學分總數：3                                                                                       |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                              |
| 議題融入：   | 科技、生涯規劃、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                              |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                              |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                              |
|         | B溝通互動：B1.符號運用與溝通表達, B2.科技資訊與媒體素養, B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                              |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                              |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                     |                                                                                              |
| 學習目標：   | This course enables you to further develop your knowledge and skills in visual arts. You will use the creative process to explore a wide range of themes through studio work that may include drawing, painting, sculpting, and printmaking, as well as the creation of collage, multimedia works, and works using emerging technologies. You will use the critical analysis process when evaluating your own work and the work of others. |                                                                                              |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                                                                        |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 How can I work with 3-D? Lesson 11: What is sculpture?                                |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 How can I work with 3-D? Lesson 12: Where can you see art?                            |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 How can I work with 3-D? Lesson 13: Generating and appropriating art                  |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 How can I work with 3-D? Lesson 14: Construction and safety                           |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 How can I work with 3-D? Lesson 15: Assemblage, documentation, and artist statement   |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 5 How can I work with 3-D? Lesson 15: Assemblage, documentation, and artist statement   |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 6 How can I create an artist's book? Part A Lesson 16: Landscapes in modern art         |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 6 How can I create an artist's book? Part A Lesson 16: Landscapes in modern art         |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 6 How can I create an artist's book? Part A Lesson 17: Techniques in pen and watercolor |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 6 How can I create an artist's book? Part A Lesson 17: Techniques in pen and watercolor |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 How can I create an artist's book?: Part B Lesson 18: Landscape drawing and painting  |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 How can I create an artist's book?: Part B Lesson 18: Landscape drawing and painting  |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 How can I create an artist's book?: Part B Lesson 19: Creating an artist's book       |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 How can I create an artist's book?: Part B Lesson 19: Creating an artist's book       |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 How can I create an artist's book?: Part B Lesson 19: Creating an artist's book       |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 How can I create an artist's book?: Part B Lesson 20: Final assessment of learning    |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 7 How can I create an artist's book?: Part B Lesson 20: Final assessment of learning    |

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|-------|------------------------------|---------|-----------------------------|
|       | 十八                           | Wrap-Up | Reflections and Discussions |
|       | 十九                           |         |                             |
|       | 二十                           |         |                             |
|       | 二十一                          |         |                             |
|       | 二十二                          |         |                             |
|       |                              |         |                             |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |         |                             |
| 備註：   |                              |         |                             |

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|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 課程名稱：                                                                                                  | 中文名稱： 德語4                                                                                                                                  |                                                                          |
|                                                                                                        | 英文名稱： German4                                                                                                                              |                                                                          |
| 授課年段：                                                                                                  | 二下                                                                                                                                         | 學分總數： 2                                                                  |
| 課程屬性：                                                                                                  | 第二外國語文                                                                                                                                     |                                                                          |
| 議題融入：                                                                                                  | 多元文化、國際教育                                                                                                                                  |                                                                          |
| 師資來源：                                                                                                  | 外聘(其他)                                                                                                                                     |                                                                          |
| 課綱核心素養：                                                                                                | A自主行動： A1. 身心素質與自我精進,                                                                                                                      |                                                                          |
|                                                                                                        | B溝通互動： B1. 符號運用與溝通表達, B3. 藝術涵養與美感素養,                                                                                                       |                                                                          |
|                                                                                                        | C社會參與： C2. 人際關係與團隊合作, C3. 多元文化與國際理解,                                                                                                       |                                                                          |
| 學生圖像：                                                                                                  | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                          |
| 學習目標：                                                                                                  | 1. 複習德文發音規則。<br>2. 進階句型及語法概念介紹。<br>3. 複習日常生活表達，包含問候、自我介紹、數字、日常習慣等。<br>4. 德語國家文化認識。<br>5. 加強日常生活單字的練習，以擴展學生習得的單字量。                          |                                                                          |
| 教學大綱：                                                                                                  | 週次/<br>序                                                                                                                                   | 單元/主題                                                                    |
|                                                                                                        | 一                                                                                                                                          | Revision A1.2 lessons 10-12, writing exercise                            |
|                                                                                                        | 二                                                                                                                                          | Lesson 13:                                                               |
|                                                                                                        | 三                                                                                                                                          | Lesson 13:                                                               |
|                                                                                                        | 四                                                                                                                                          | Lesson 14:                                                               |
|                                                                                                        | 五                                                                                                                                          | Lesson 14: clothes, presents and meeting spots                           |
|                                                                                                        | 六                                                                                                                                          | Lesson 15: talking about past events, describing people                  |
|                                                                                                        | 七                                                                                                                                          | Lesson 15:                                                               |
|                                                                                                        | 八                                                                                                                                          | Revision of lessons 10-15                                                |
|                                                                                                        | 九                                                                                                                                          | Revision of lessons 10-15                                                |
|                                                                                                        | 十                                                                                                                                          | Comprehensive Listening, Reading, Writing/Grammar and Speaking Exercises |
|                                                                                                        | 十一                                                                                                                                         | Lesson 16:                                                               |
|                                                                                                        | 十二                                                                                                                                         | Lesson 16:                                                               |
|                                                                                                        | 十三                                                                                                                                         | Lesson 17: travel destinations                                           |
|                                                                                                        | 十四                                                                                                                                         | Lesson 17: travel destinations                                           |
|                                                                                                        | 十五                                                                                                                                         | Revision of lessons 13-17                                                |
|                                                                                                        | 十六                                                                                                                                         | Revision of lessons 13-17                                                |
| 內容綱要                                                                                                   |                                                                                                                                            |                                                                          |
| Bringing a postcard from summer break and writing about activities in German                           |                                                                                                                                            |                                                                          |
| train time tables and travelling by train                                                              |                                                                                                                                            |                                                                          |
| train time tables and travelling by train                                                              |                                                                                                                                            |                                                                          |
| clothes, presents and meeting spots                                                                    |                                                                                                                                            |                                                                          |
| Creating a “fashion magazine” : presenting one’ s favorite outfits and describing one’ s favorite star |                                                                                                                                            |                                                                          |
| Creating a “fashion magazine” : presenting one’ s favorite outfits and describing one’ s favorite star |                                                                                                                                            |                                                                          |
| talking about past events, describing people                                                           |                                                                                                                                            |                                                                          |
| Group work: creating mind maps on grammar & vocabulary topics covered in lessons 10-15                 |                                                                                                                                            |                                                                          |
| Group work: creating mind maps on grammar & vocabulary topics covered in lessons 10-15                 |                                                                                                                                            |                                                                          |
| Strengthening skills of lessons 10-15                                                                  |                                                                                                                                            |                                                                          |
| apartments & houses, prepositions of time & frequency                                                  |                                                                                                                                            |                                                                          |
| apartments & houses, prepositions of time & frequency                                                  |                                                                                                                                            |                                                                          |
| Creating a photo collage: students’ dream destination in a German-speaking country                     |                                                                                                                                            |                                                                          |
| Creating a photo collage: students’ dream destination in a German-speaking country                     |                                                                                                                                            |                                                                          |
| Review the vocabulary and grammar                                                                      |                                                                                                                                            |                                                                          |
| Review the vocabulary and grammar                                                                      |                                                                                                                                            |                                                                          |

|       |     |                                                                          |                                                                          |
|-------|-----|--------------------------------------------------------------------------|--------------------------------------------------------------------------|
|       | 十七  | Comprehensive Listening, Reading, Writing/Grammar and Speaking Exercises | Strengthening skills of lessons 13-17                                    |
|       | 十八  | Feedback round                                                           | Discussing difficulties in the comprehensive exercises, semester wrap-up |
|       | 十九  |                                                                          |                                                                          |
|       | 二十  |                                                                          |                                                                          |
|       | 二十一 |                                                                          |                                                                          |
|       | 二十二 |                                                                          |                                                                          |
|       |     |                                                                          |                                                                          |
| 學習評量： |     | 課堂互動25%、課堂實作25%、小組合作25%、作品產出25%                                          |                                                                          |
| 備註：   |     |                                                                          |                                                                          |

【備查版】

【備查版】

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| 課程名稱：   | 中文名稱：數學建模(下)                                                                                                                    |          |
|         | 英文名稱：Mathematical Modeling2                                                                                                     |          |
| 授課年段：   | 二下                                                                                                                              | 學分總數：2   |
| 課程屬性：   | 跨領域/科目統整                                                                                                                        |          |
| 議題融入：   | 性別平等、品德、生命、防災、生涯規劃、多元文化、戶外教育                                                                                                    |          |
| 師資來源：   | 校內單科                                                                                                                            |          |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                   |          |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                |          |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                   |          |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |          |
| 學習目標：   | 根據實際問題建立數學模型，深入調查研究、了解對象訊息、簡化假設、分析、尋找規律，用數學符號及語言作為表述，進而解決實際問題。                                                                  |          |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題    |
|         | 一                                                                                                                               | 介紹數學工具   |
|         | 二                                                                                                                               | 練習使用數學工具 |
|         | 三                                                                                                                               | 使用工具分析   |
|         | 四                                                                                                                               | 使用工具分析   |
|         | 五                                                                                                                               | 建立數學模型   |
|         | 六                                                                                                                               | 模型分析     |
|         | 七                                                                                                                               | 分組討論     |
|         | 八                                                                                                                               | 分組討論     |
|         | 九                                                                                                                               | 分組討論     |
|         | 十                                                                                                                               | 分組報告     |
|         | 十一                                                                                                                              | 分組報告     |
|         | 十二                                                                                                                              | 期末主題討論   |
|         | 十三                                                                                                                              | 主題討論（一）  |
|         | 十四                                                                                                                              | 主題討論（二）  |
|         | 十五                                                                                                                              | 主題討論（三）  |
|         | 十六                                                                                                                              | 分組競賽     |
|         | 十七                                                                                                                              | 分組競賽     |
|         | 十八                                                                                                                              | 報告回饋     |
|         | 十九                                                                                                                              |          |
|         | 二十                                                                                                                              |          |
|         | 二十一                                                                                                                             |          |
|         | 二十二                                                                                                                             |          |
| 學習評量：   | 學生學習回饋表15%<br>過程評量30%<br>同儕互評15%<br>成果報告40%                                                                                     |          |
| 備註：     |                                                                                                                                 |          |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                 |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：觀光餐旅業導論(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                 |
|         | 英文名稱：Hospitality and Tourism II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                 |
| 授課年段：   | 二下、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 學分總數：3                                                                                          |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                 |
| 議題融入：   | 生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                 |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                 |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                 |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                 |
|         | C社會參與：C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                 |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                 |
| 學習目標：   | This course enables you to develop or expand your knowledge and skills related to hospitality and tourism, as reflected in the various sectors of the tourism industry. You will learn about preparing and presenting food, evaluating facilities, controlling inventory, and marketing and managing events and activities, and will investigate customer service principles and the cultural and economic forces that drive tourism trends. You will develop an awareness of health and safety standards, environmental and societal issues, and career opportunities in the tourism industry. |                                                                                                 |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 單元/主題 內容綱要                                                                                      |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 11: The tools of the trade                    |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 11: The tools of the trade                    |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 12: Recipes and measurement: Ensuring success |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 12: Recipes and measurement: Ensuring success |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 13: What makes it taste good?                 |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 13: What makes it taste good?                 |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 14: Culinary foundations and techniques       |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 14: Culinary foundations and techniques       |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 What's cooking? Culinary principles Lesson 15: Presentation, menus, and table settings   |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 6 What is responsible cuisine? - Part A Lesson 16: Menus with responsibility               |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 6 What is responsible cuisine? - Part A Lesson 16: Menus with responsibility               |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 6 What is responsible cuisine? - Part A Lesson 17: What factors guide our food choices?    |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 6 What is responsible cuisine? - Part A Lesson 17: What factors guide our food choices?    |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7 What is responsible cuisine? - Part B Lesson 18: How can we go green?                    |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7 What is responsible cuisine? - Part B Lesson 19: What is the ecology of food?            |



|                                   |     |                                              |                                                      |
|-----------------------------------|-----|----------------------------------------------|------------------------------------------------------|
|                                   | 十六  | Unit 7 What is responsible cuisine? – Part B | Lesson 20: How does this industry bring it all home? |
|                                   | 十七  | Final Project                                | Project Presentations                                |
|                                   | 十八  | Wrap-Up                                      | Reflections and Final Thoughts                       |
|                                   | 十九  |                                              |                                                      |
|                                   | 二十  |                                              |                                                      |
|                                   | 二十一 |                                              |                                                      |
|                                   | 二十二 |                                              |                                                      |
| 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |     |                                              |                                                      |
| 備註：                               |     |                                              |                                                      |

【備查版】

|         |                                                                                                                                 |                   |
|---------|---------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 課程名稱：   | 中文名稱：《紅樓夢》專題探究(上)                                                                                                               |                   |
|         | 英文名稱：Analysis of Ancient Chinese Text "Dream of the Red Chamber"                                                                |                   |
| 授課年段：   | 三上                                                                                                                              | 學分總數：2            |
| 課程屬性：   | 專題探究                                                                                                                            |                   |
| 議題融入：   | 性別平等、人權、生命、家庭教育、閱讀素養                                                                                                            |                   |
| 師資來源：   | 外聘(其他)                                                                                                                          |                   |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，                                                                                                |                   |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，B3.藝術涵養與美感素養，                                                                                   |                   |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，                                                                                                |                   |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                   |
| 學習目標：   | 瞭解《紅樓夢》主題意涵與價值觀，建立自我生命價值                                                                                                        |                   |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題             |
|         | 一                                                                                                                               | 簡介曹雪芹生平與《紅樓夢》成書經過 |
|         | 二                                                                                                                               | 簡介曹雪芹生平與《紅樓夢》成書經過 |
|         | 三                                                                                                                               | 簡介曹雪芹生平與《紅樓夢》成書經過 |
|         | 四                                                                                                                               | 簡介《紅樓夢》故事梗概       |
|         | 五                                                                                                                               | 簡介《紅樓夢》故事梗概       |
|         | 六                                                                                                                               | 簡介《紅樓夢》故事梗概       |
|         | 七                                                                                                                               | 簡介《紅樓夢》故事梗概       |
|         | 八                                                                                                                               | 簡介《紅樓夢》主要人物       |
|         | 九                                                                                                                               | 簡介《紅樓夢》主要人物       |
|         | 十                                                                                                                               | 簡介《紅樓夢》主要人物       |
|         | 十一                                                                                                                              | 簡介《紅樓夢》的環境        |
|         | 十二                                                                                                                              | 簡介《紅樓夢》的環境        |
|         | 十三                                                                                                                              | 簡介《紅樓夢》的環境        |
|         | 十四                                                                                                                              | 簡介《紅樓夢》的環境        |
|         | 十五                                                                                                                              | 簡介《紅樓夢》的情與愛       |
|         | 十六                                                                                                                              | 簡介《紅樓夢》的情與愛       |
|         | 十七                                                                                                                              | 簡介《紅樓夢》的情與愛       |
|         | 十八                                                                                                                              | 簡介《紅樓夢》的情與愛       |
|         | 十九                                                                                                                              |                   |

1. 曹雪芹身世與《紅樓夢》的關係 2. 《紅樓夢》作者與成書的過程

1. 曹雪芹身世與《紅樓夢》的關係 2. 《紅樓夢》作者與成書的過程

1. 曹雪芹身世與《紅樓夢》的關係 2. 《紅樓夢》作者與成書的過程

《紅樓夢》故事的梗概與各方解讀

《紅樓夢》故事的梗概與各方解讀

《紅樓夢》故事的梗概與各方解讀

《紅樓夢》故事的梗概與各方解讀

1. 賈寶玉與林黛玉的前世今生 2. 《紅樓夢》主要人物的結局 3. 《紅樓夢》主要人物的性格與影響

1. 賈寶玉與林黛玉的前世今生 2. 《紅樓夢》主要人物的結局 3. 《紅樓夢》主要人物的性格與影響

1. 賈寶玉與林黛玉的前世今生 2. 《紅樓夢》主要人物的結局 3. 《紅樓夢》主要人物的性格與影響

1. 四大家族關係 2. 大觀園建築 3. 《紅樓夢》的社會意識

1. 四大家族關係 2. 大觀園建築 3. 《紅樓夢》的社會意識

1. 四大家族關係 2. 大觀園建築 3. 《紅樓夢》的社會意識

1. 四大家族關係 2. 大觀園建築 3. 《紅樓夢》的社會意識

1. 《紅樓夢》的男女愛情 2. 《紅樓夢》的家族親情 3. 《紅樓夢》的真情

1. 《紅樓夢》的男女愛情 2. 《紅樓夢》的家族親情 3. 《紅樓夢》的真情

1. 《紅樓夢》的男女愛情 2. 《紅樓夢》的家族親情 3. 《紅樓夢》的真情

1. 《紅樓夢》的男女愛情 2. 《紅樓夢》的家族親情 3. 《紅樓夢》的真情

|       |                                               |  |  |
|-------|-----------------------------------------------|--|--|
|       | 二十                                            |  |  |
|       | 二十一                                           |  |  |
|       | 二十二                                           |  |  |
| 學習評量： | 文本閱讀與口說20%<br>上課提問與回答20%<br>學習態度20%<br>學習單40% |  |  |
| 備註：   |                                               |  |  |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：AP 英語文學與作文(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                |
|             | 英文名稱：AP English Literature and Composition I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                |
| 授課年段：       | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 學分總數：4                                                                                                                         |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                |
| 議題融入：       | 多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                |
|             | B溝通互動：B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                |
|             | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                |
| 學習目標：       | <p>Students will:</p> <ul style="list-style-type: none"> <li>• Develop accurate, perceptive reading skills through close study of texts representing various literary genres and time periods.</li> <li>• Analyze texts and: <ul style="list-style-type: none"> <li>• Explain the function of character and setting.</li> <li>• Explain the function of plot and structure.</li> <li>• Explain the function of narrator or speaker.</li> <li>• Explain the function of figurative language such as word choice, imagery, symbols, and comparison.</li> </ul> </li> <li>• Develop textually substantiated arguments about interpretations of part or all of a text.</li> <li>• Develop a fluent, precise writing style through frequent writing over extended and shorter time frames for a range of tasks, purposes, and audiences.</li> </ul> |                                                                                                                                |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                                                                                                          |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 0                                                                                                                         |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 1 Short Fiction I                                                                                                         |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 1 Short Fiction I                                                                                                         |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 1 Short Fiction I                                                                                                         |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 2 Poetry I                                                                                                                |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 2 Poetry I                                                                                                                |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 2 Poetry I                                                                                                                |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 3 Longer Fiction or Drama I                                                                                               |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 3 Longer Fiction or Drama I                                                                                               |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 3 Longer Fiction or Drama I                                                                                               |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Review                                                                                                                         |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 內容綱要                                                                                                                           |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Introduction                                                                                                                   |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Interpreting the role of character in fiction<br>2. Identifying and interpreting setting                                    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Understanding how a story's structure affects interpretations<br>2. Understanding and interpreting a narrator's perspective |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Reading texts literally and figuratively<br>2. The basics of literary analysis                                              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Identifying characters in poetry                                                                                               |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Understanding and interpreting meaning in poetic structure<br>2. Analyzing word choice to find meaning                      |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Identifying techniques like contrast, simile, metaphor, and alliteration                                                       |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Interpreting character description and perspective                                                                             |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Character evolution throughout a narrative<br>2. Conflict and plot development                                              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Interpreting symbolism<br>2. Identifying evidence and supporting literary arguments                                         |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Questions and Discussions                                                                                                      |

|                                    |     |                         |                                                                                                                               |
|------------------------------------|-----|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|
|                                    | 十二  | Unit 4 Short Fiction II | Protagonists, antagonists, character relationships, and conflict                                                              |
|                                    | 十三  | Unit 4 Short Fiction II | 1.Character interactions with setting and its significance<br>Archetypes in literature                                        |
|                                    | 十四  | Unit 4 Short Fiction II | 1.Types of narration like stream of consciousness<br>2.Narrative distance, tone, and perspective                              |
|                                    | 十五  | Unit 5 Poetry II        | Traits of closed and open structures in poetry                                                                                |
|                                    | 十六  | Unit 5 Poetry II        | Use of techniques like imagery and hyperbole                                                                                  |
|                                    | 十七  | Unit 5 Poetry II        | 1.Types of comparisons in poetry including personification and allusion<br>2. Identifying and interpreting extended metaphors |
|                                    | 十八  | Review                  | Questions and Discussions                                                                                                     |
|                                    | 十九  |                         |                                                                                                                               |
|                                    | 二十  |                         |                                                                                                                               |
|                                    | 二十一 |                         |                                                                                                                               |
|                                    | 二十二 |                         |                                                                                                                               |
| 學習評量： 40% 課堂參與討論、30% 回家作業、30% 專題報告 |     |                         |                                                                                                                               |
| 備註： 全英文授課                          |     |                         |                                                                                                                               |

|         |                                                                                                                                                                                                                                              |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： AP物理C:力學                                                                                                                                                                                                                               |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|         | 英文名稱： AP® Physics C: Mechanics                                                                                                                                                                                                               |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 授課年段：   | 三上                                                                                                                                                                                                                                           | 學分總數： 4                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                       |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 議題融入：   | 環境、科技、能源                                                                                                                                                                                                                                     |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                       |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3. 規劃執行與創新應變,                                                                                                                                                                                                          |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|         | B溝通互動：                                                                                                                                                                                                                                       |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|         | C社會參與：                                                                                                                                                                                                                                       |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 學生圖像：   | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 ,                                                                                                                                                                      |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 學習目標：   | Create representations that depict physical phenomena<br>Conduct analyses to derive, calculate, estimate or predict physical phenomena<br>Describe experimental procedures and methods, interpret results and scientifically support claims. |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 教學大綱：   | 週次/<br>序                                                                                                                                                                                                                                     | 單元/主題                              | 內容綱要                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|         | 一                                                                                                                                                                                                                                            | Introduction to Concepts of Motion | Understand the rules and policies of the course, and expectations of you as a contributing member of our learning community.<br>Begin to build community by sharing important information with your teacher and classmates about yourself and your school.<br>Develop your skills for navigating the course environment and using the various course tools<br>Find the Pearson Mastering eBook platform, and take the steps to register and create an account.<br>Complete some logistical assignments to prepare for success in this course. |
|         | 二                                                                                                                                                                                                                                            | Kinematics in One Dimension        | Describe a change in an object's position.<br>Describe the average velocity and acceleration of an object.<br>Describe the instantaneous displacement, velocity, and acceleration of an object as a function of time.                                                                                                                                                                                                                                                                                                                         |
|         | 三                                                                                                                                                                                                                                            | Vectors and Coordinate Systems     | Describe a vector or scalar quantity using magnitude and direction, as appropriate.<br>Describe how vectors can be resolved into their components and written in unit-vector notation                                                                                                                                                                                                                                                                                                                                                         |
|         | 四                                                                                                                                                                                                                                            | Kinematics in Two Dimensions       | Describe the reference frame of a given observer.<br>Describe the motion of objects as seen by observers in different inertial reference frames.<br>Describe the motion of an object moving in two or three dimensions.                                                                                                                                                                                                                                                                                                                       |
|         | 五                                                                                                                                                                                                                                            | Review                             | Review                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|         | 六                                                                                                                                                                                                                                            | Forces and Dynamics in a line      | Describe a force as an interaction between two objects and identify both objects for any force.                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|    |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                       | <p>Describe the forces exerted on an object using a free-body diagram.</p> <p>Describe or identify the conditions under which a system's velocity remains constant.</p> <p>Describe or identify the conditions under which a system's velocity changes.</p> <p>Describe the kinetic friction between two surfaces.</p> <p>Describe the static friction between two surfaces.</p> <p>Describe the motion of an object subject to a resistive force</p> |
| 七  | Forces and Dynamics along a plane     | <p>Describe the interaction of two objects using Newton's third law and the representation of paired forces exerting on each object.</p> <p>Describe the motion of an object traveling in a circular path.</p> <p>Describe the conditions under which the magnitude of a system's apparent weight is different from the magnitude of the gravitational force exerted on that system</p>                                                               |
| 八  | Newton and Kepler's Laws, and Gravity | <p>Describe the gravitational interaction between two objects with mass.</p> <p>Describe situations in which the gravitational force can be considered constant.</p> <p>Describe the gravitational force exerted on an object from a uniform, spherical distribution of mass.</p> <p>Describe the difference between inertial and gravitational mass.</p> <p>Describe circular orbits using Kepler's third law.</p>                                   |
| 九  | Work and Kinetic Energy               | <p>Describe the translational kinetic energy of an object in terms of the object's mass and velocity.</p> <p>Describe the work done on an object or system by a given force or collection of forces.</p>                                                                                                                                                                                                                                              |
| 十  | Review                                | Review                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 十一 | Interactions and Potential Energy     | <p>Describe the potential energy of a system.</p> <p>Describe the energies present in a system.</p> <p>Describe the behavior of a system using conservation of mechanical energy principles.</p> <p>Describe how the selection of a system indicates whether the energy of that system changes.</p> <p>Describe the transfer of energy into, out of, or within a system in terms of power.</p>                                                        |
| 十二 | Momentum and Impulse                  | <p>Describe the linear momentum of an object.</p> <p>Describe the impulse delivered to a system.</p> <p>Describe the relationship between the impulse given to a system and the change in momentum of a system.</p>                                                                                                                                                                                                                                   |
| 十三 | Conservation and Collisions           | Describe the behavior of a system using the conservation of linear momentum.                                                                                                                                                                                                                                                                                                                                                                          |



|     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                | <p>Describe how the selection of a system indicates whether the momentum of that system changes.</p> <p>Describe whether an interaction between systems is elastic or inelastic.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 十四  | Rotational Motion              | <p>Describe the rotation of a system with respect to time using angular displacement, angular velocity, and angular acceleration.</p> <p>Describe the linear motion of a point on a rotating rigid system that corresponds to the rotational motion of that point, and vice versa.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 十五  | Rotational Dynamics            | <p>Describe the torques exerted on a rigid system.</p> <p>Describe the rotational inertia of a rigid system relative to a given axis of rotation.</p> <p>Describe or identify the conditions under which a system's angular velocity remains constant using a dynamics analysis.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 十六  | Rotational Energy and Momentum | <p>Describe the rotational kinetic energy of an object or rigid system in terms of the object's or rigid system's rotational inertia and angular velocity.</p> <p>Describe the work done on an object or system by a net torque.</p> <p>Describe the angular momentum of an object or rigid system.</p> <p>Describe the angular impulse delivered to an object or rigid system by a torque.</p> <p>Relate an object's or rigid system's change in angular momentum to the angular impulse given to the object or rigid system.</p> <p>Describe the behavior of a system using the conservation of angular momentum.</p> <p>Describe the kinetic energy of a system that has translational and rotational motion.</p> <p>Describe the motion of a system that is rolling without slipping and a system that is rolling while slipping.</p> |
| 十七  | Oscillations                   | <p>Identify motion as simple harmonic motion.</p> <p>Describe the frequency and period of an object exhibiting simple harmonic motion.</p> <p>Describe the displacement, velocity, and acceleration of an object exhibiting simple harmonic motion using representations of that motion.</p> <p>Describe the mechanical energy of a system exhibiting simple harmonic motion.</p> <p>Describe the properties of a physical pendulum.</p>                                                                                                                                                                                                                                                                                                                                                                                                  |
| 十八  | Review                         | Review                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 十九  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 二十  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 二十一 |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 二十二 |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|       |                              |
|-------|------------------------------|
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |
| 備註：   | 全英授課                         |

【備 查 版】

|             |                                                                                                                            |         |
|-------------|----------------------------------------------------------------------------------------------------------------------------|---------|
| 課程名稱：       | 中文名稱： 大腦與我                                                                                                                 |         |
|             | 英文名稱： Neuroscience: An Introduction to the Brain                                                                           |         |
| 授課年段：       | 三上                                                                                                                         | 學分總數： 2 |
| 課程屬性：       | 跨領域/科目統整                                                                                                                   |         |
| 議題融入：       | 性別平等、人權、生命、家庭教育、多元文化                                                                                                       |         |
| 師資來源：       | 校內單科                                                                                                                       |         |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                         |         |
|             | B溝通互動： B1.符號運用與溝通表達,                                                                                                       |         |
|             | C社會參與： C2.人際關係與團隊合作,                                                                                                       |         |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,              |         |
| 學習目標：       | 1. 認識認知神經科學 (cognitive neuroscience) , 探索腦與心智 (brain and mind) 的關連性<br>2. 認識日常生活中常見行為的神經科學原理。<br>3. 培養關愛、同理之情懷, 並能夠尊重個體差異。 |         |
| 教學大綱：       | 週次/<br>序                                                                                                                   | 單元/主題   |
|             | 一                                                                                                                          | 天性與教養   |
|             | 二                                                                                                                          | 消費騙局1   |
|             | 三                                                                                                                          | 消費騙局2   |
|             | 四                                                                                                                          | 職場騙局1   |
|             | 五                                                                                                                          | 職場騙局2   |
|             | 六                                                                                                                          | 職場騙局3   |
|             | 七                                                                                                                          | 職場騙局4   |
|             | 八                                                                                                                          | 社交騙局1   |
|             | 九                                                                                                                          | 社交騙局2   |
|             | 十                                                                                                                          | 社交騙局3   |
|             | 十一                                                                                                                         | 社交騙局4   |
|             | 十二                                                                                                                         | 社交騙局5   |
|             | 十三                                                                                                                         | 知識騙局1   |
|             | 十四                                                                                                                         | 知識騙局2   |
|             | 十五                                                                                                                         | 知識騙局3   |
|             | 十六                                                                                                                         | 知識騙局4   |
|             | 十七                                                                                                                         | 知識騙局5   |
|             | 十八                                                                                                                         | 表達分享    |
|             | 十九                                                                                                                         |         |
|             | 二十                                                                                                                         |         |
|             | 二十一                                                                                                                        |         |
|             | 二十二                                                                                                                        |         |
| 學習評量：       | 1. 課堂參與 (40%) : 每堂課程皆有學習單與省思<br>2. 期末報告 (60%) : 針對課程內容做一10分鐘科學短片, 影片中需傳達其中所涉及的神經科學原理, 並附上書面報告                              |         |
| 備註：         |                                                                                                                            |         |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：大數據分析(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                |
|             | 英文名稱：Mathematics of Data Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                |
| 授課年段：       | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 學分總數：3                                                                                                                                                                                                                                                                                         |
| 課程屬性：       | 跨領域/科目統整                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                |
| 議題融入：       | 資訊                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                |
|             | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                |
|             | C社會參與：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                |
| 學習目標：       | This course will broaden your understanding of mathematics as it relates to managing data. You will apply methods for organizing and analyzing large amounts of information; solve problems involving probability and statistics; and carry out a culminating investigation that integrates statistical concepts and skills. You will also refine your use of the mathematical processes necessary for success in senior mathematics. If you are planning to enter university programs in business, the social sciences, and the humanities you will find this course of particular interest. |                                                                                                                                                                                                                                                                                                |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                                                                                                                                                          |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Introduction                                                                                                                                                                                                                                                                                   |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 1: Statistics – Part A Lesson 1: Importance of data                                                                                                                                                                                                                                       |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 2: Collecting data – sampling                                                                                                                                                                                                                                                           |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 2: Statistics – Part B Lesson 3: Analyzing one-variable data                                                                                                                                                                                                                              |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 4: Analyzing two-variable data                                                                                                                                                                                                                                                          |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 5: Use and misuse of statistics                                                                                                                                                                                                                                                         |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Revision                                                                                                                                                                                                                                                                                       |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 3: Combinatorics – Part A Lesson 6: Organized counting and permutations                                                                                                                                                                                                                   |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 內容綱要                                                                                                                                                                                                                                                                                           |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Course overview                                                                                                                                                                                                                                                                                |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will recognize and describe the role of data in statistical studies                                                                                                                                                                                                                   |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will determine and describe principles of primary data collection (e.g., the need for randomization, replication, and control in experimental studies; the need for randomization in sample surveys) and criteria that should be considered in order to collect reliable primary data |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will recognize that the analysis of one-variable data involves the frequencies associated with one attribute, and determine, using technology, the relevant numerical summaries (i.e., mean, median, mode, range, interquartile range, variance, and standard deviation)              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will recognize and distinguish different types of relationships between two variables that have a mathematical correlation                                                                                                                                                            |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will describe how the use of random samples with a bias (e.g., response bias, measurement bias, non-response bias, sampling bias) or the use of non-random samples can affect the results of a study                                                                                  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Questions and discussions                                                                                                                                                                                                                                                                      |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will distinguish between situations that involve the use of permutations and those that involve the use of combinations (e.g., by considering whether or not order matters), and make connections between                                                                             |

|                             |                                                                                                      |                                                                                                                                                                                           |
|-----------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             |                                                                                                      | n, and calculate, permutations and combinations                                                                                                                                           |
| 九                           | Lesson 6: Organized counting and permutations                                                        | Students will solve problems using techniques for counting permutations and combinations, where all objects are distinct, and express the solutions using standard combinatorial notation |
| 十                           | Lesson 7: Combinations                                                                               | Students will distinguish between situations that involve the use of permutations and those that involve the use of combinations                                                          |
| 十一                          | Lesson 7: Combinations                                                                               | Students will make connections between, and calculate, permutations and combinations                                                                                                      |
| 十二                          | Unit 4: Combinatorics – Part B<br>Lesson 8: Combinatorics problems involving repetition and overlaps | Students will solve introductory counting problems involving the additive counting principle and the multiplicative counting principle                                                    |
| 十三                          | Lesson 8: Combinatorics problems involving repetition and overlaps                                   | Students will solve probability problems using counting principles for situations involving equally likely outcomes                                                                       |
| 十四                          | Lesson 9: Pascal's triangle and its applications                                                     | Students will make connections between combinations and row 3 of Pascal's triangle                                                                                                        |
| 十五                          | Lesson 9: Pascal's triangle and its applications                                                     | Students will make connections between combinations and diagonal 3 of Pascal's triangle                                                                                                   |
| 十六                          | Lesson 10: Combinations and Pascal's triangle                                                        | Students will make connections, through investigation, between combinations (i.e., $n$ choose $r$ ) and Pascal's triangle                                                                 |
| 十七                          | Revision                                                                                             | Questions and discussions                                                                                                                                                                 |
| 十八                          | Semester Wrap-up                                                                                     | Feedback and reflection                                                                                                                                                                   |
| 十九                          |                                                                                                      |                                                                                                                                                                                           |
| 二十                          |                                                                                                      |                                                                                                                                                                                           |
| 二十一                         |                                                                                                      |                                                                                                                                                                                           |
| 二十二                         |                                                                                                      |                                                                                                                                                                                           |
| 學習評量：                       |                                                                                                      |                                                                                                                                                                                           |
| 課堂互動(15%)、作業(70%)、專題報告(15%) |                                                                                                      |                                                                                                                                                                                           |
| 備註：                         |                                                                                                      |                                                                                                                                                                                           |
| 全英語授課                       |                                                                                                      |                                                                                                                                                                                           |

|         |                                                                                                                                                                                                                                                                                                                                      |         |                                                                                               |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 升學輔導                                                                                                                                                                                                                                                                                                                           |         |                                                                                               |
|         | 英文名稱： College Admission Counseling                                                                                                                                                                                                                                                                                                   |         |                                                                                               |
| 授課年段：   | 三上、三下                                                                                                                                                                                                                                                                                                                                | 學分總數： 3 |                                                                                               |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                 |         |                                                                                               |
| 議題融入：   | 品德、多元文化                                                                                                                                                                                                                                                                                                                              |         |                                                                                               |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                               |         |                                                                                               |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                                                                                                     |         |                                                                                               |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                 |         |                                                                                               |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                 |         |                                                                                               |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                   |         |                                                                                               |
| 學習目標：   | 1. Cultivate self-awareness and logical thinking for effective decision-making.<br>2. Develop critical thinking and independent research skills.<br>3. Understand the connection between academic interests and career choices.<br>4. Gain knowledge of international universities, application processes, and selection strategies. |         |                                                                                               |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                 | 單元/主題   | 內容綱要                                                                                          |
|         | 一                                                                                                                                                                                                                                                                                                                                    | Unit 1  | Course Overview (Teaching Content, Assessment Criteria, Class Requirements)                   |
|         | 二                                                                                                                                                                                                                                                                                                                                    | Unit 2  | Statistics on Alumni Application Data<br>Update of Resumes                                    |
|         | 三                                                                                                                                                                                                                                                                                                                                    | Unit 3  | Explanation of the College List Defense<br>Preparation for College List Search and Assignment |
|         | 四                                                                                                                                                                                                                                                                                                                                    | Unit 4  | Overview and Analysis of College Choices<br>Discussion of 5-8 Colleges for the 1st Round      |
|         | 五                                                                                                                                                                                                                                                                                                                                    | Unit 4  | Discussion of 5-8 Colleges for the 2nd Round                                                  |
|         | 六                                                                                                                                                                                                                                                                                                                                    | Unit 5  | Further Analysis and Consideration of College Options                                         |
|         | 七                                                                                                                                                                                                                                                                                                                                    | Unit 6  | Further Analysis and Consideration of College Options                                         |
|         | 八                                                                                                                                                                                                                                                                                                                                    | Unit 6  | Writing and Peer Review of College Essays                                                     |
|         | 九                                                                                                                                                                                                                                                                                                                                    | Unit 7  | Common App Essay Writing                                                                      |
|         | 十                                                                                                                                                                                                                                                                                                                                    | Unit 8  | Evaluation of College Essays                                                                  |
|         | 十一                                                                                                                                                                                                                                                                                                                                   | Unit 9  | University Seminar 1                                                                          |
|         | 十二                                                                                                                                                                                                                                                                                                                                   | Unit 10 | UC Essay 1 Writing                                                                            |
|         | 十三                                                                                                                                                                                                                                                                                                                                   | Unit 10 | UC Essay 1 Peer Review (Teacher and Peer Review)                                              |
|         | 十四                                                                                                                                                                                                                                                                                                                                   | Unit 11 | University Seminar 2                                                                          |
|         | 十五                                                                                                                                                                                                                                                                                                                                   | Unit 12 | Why Major Essay Writing                                                                       |
|         | 十六                                                                                                                                                                                                                                                                                                                                   | Unit 12 | Why Major Essay Peer Review                                                                   |
|         | 十七                                                                                                                                                                                                                                                                                                                                   |         |                                                                                               |
|         | 十八                                                                                                                                                                                                                                                                                                                                   |         |                                                                                               |
|         | 十九                                                                                                                                                                                                                                                                                                                                   |         |                                                                                               |
| 二十      |                                                                                                                                                                                                                                                                                                                                      |         |                                                                                               |

|       |                              |  |  |
|-------|------------------------------|--|--|
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英語授課                        |  |  |

【備查版】

【備查版】



|         |                                                                                                                                    |                                                     |
|---------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 課程名稱：   | 中文名稱： 日語5                                                                                                                          |                                                     |
|         | 英文名稱： Japanese 5                                                                                                                   |                                                     |
| 授課年段：   | 三上                                                                                                                                 | 學分總數： 2                                             |
| 課程屬性：   | 第二外國語文                                                                                                                             |                                                     |
| 議題融入：   | 多元文化                                                                                                                               |                                                     |
| 師資來源：   | 外聘(其他)                                                                                                                             |                                                     |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進,                                                                                                               |                                                     |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                               |                                                     |
|         | C社會參與： C3.多元文化與國際理解,                                                                                                               |                                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                                                     |
| 學習目標：   | 提升日語會話能力：能在日常情境中積極使用日語。<br>適應多種學習需求：適合日常交流、旅遊、學術預備等各種場合，考取N5證照。                                                                    |                                                     |
| 教學大綱：   | 週次/<br>序                                                                                                                           | 單元/主題<br>內容綱要                                       |
|         | 一                                                                                                                                  | 復習<br>第13~14課                                       |
|         | 二                                                                                                                                  | 復習<br>第15~16課                                       |
|         | 三                                                                                                                                  | 第17課<br>課文：“怎麼了嗎?” p. 60~69<br>句型練習A-1(文法)          |
|         | 四                                                                                                                                  | 第17課<br>課文：“怎麼了嗎?”<br>練習A-2~5(文法)/單字/相關詞彙/例文        |
|         | 五                                                                                                                                  | 第17課<br>課文：“怎麼了嗎?”<br>會話/練習B.C/聽力. 造句練習/標準問題集       |
|         | 六                                                                                                                                  | 第18課<br>課文：“興趣是什麼?” p. 70~79<br>句型練習A-1(文法)         |
|         | 七                                                                                                                                  | 第18課<br>課文：“興趣是什麼?”<br>練習A-2~5(文法)/單字/相關單字詞彙/例文/會話  |
|         | 八                                                                                                                                  | 第18課<br>課文：“興趣是什麼?”<br>練習B.C/聽力. 造句練習/標準問題集         |
|         | 九                                                                                                                                  | 第19課<br>課文：“減肥從明天開始” p. 80~89<br>句型練習A-1(文法)        |
|         | 十                                                                                                                                  | 第19課<br>課文：“減肥從明天開始”<br>練習A-2~4(文法)/單字/相關單字詞彙/例文/會話 |
|         | 十一                                                                                                                                 | 第19課<br>課文：“減肥從明天開始”<br>練習B.C/聽力. 造句練習/標準問題集        |
|         | 十二                                                                                                                                 | 復習E<br>第17~19課復習p. 90~91+小測驗                        |
|         | 十三                                                                                                                                 | 第20課<br>課文：“要不要一起去?” p. 92~101<br>句型/練習A-1(文法)      |
|         | 十四                                                                                                                                 | 第20課<br>課文：“要不要一起去?”<br>練習A-2(文法)/單字/相關詞彙/例文/會話     |
|         | 十五                                                                                                                                 | 第20課<br>課文：“要不要一起去?”<br>會話(情境)練習/練習B.C/聽力練習/標準問題集   |
|         | 十六                                                                                                                                 | 第21課<br>課文：“我也這麼認為?” p. 102~111<br>句型練習A(文法)        |
|         | 十七                                                                                                                                 | 第21課<br>課文：“我也這麼認為?”<br>單字/相關單字詞彙/例文/會話/練習B.C/聽力練習  |
|         | 十八                                                                                                                                 | 測驗<br>課堂測驗(17~21課)                                  |

|                                  |     |  |  |
|----------------------------------|-----|--|--|
|                                  | 十九  |  |  |
|                                  | 二十  |  |  |
|                                  | 二十一 |  |  |
|                                  | 二十二 |  |  |
| 學習評量： 課堂參與及實作50%、平時表現25%、期末測驗25% |     |  |  |
| 備註：                              |     |  |  |

【備查版】

【備查版】

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|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 課程名稱：   | 中文名稱：世界文化導論(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |
|         | 英文名稱：World Culture I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 學分總數：3                              |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |
| 議題融入：   | 人權、環境、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |
|         | C社會參與：C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |
| 學習目標：   | This course examines the nature of culture; how cultural identities are acquired, maintained, and transformed; and theories used to analyze cultures. You will explore world cultures, with an emphasis on the analysis of religious and spiritual beliefs, art forms, and philosophy. You will study the contributions and influence of a range of cultural groups and will critically analyze issues facing ethnocultural groups around the world. You will also develop and apply research skills and design and implement a social action initiative relating to cultural diversity. |                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 單元/主題                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Introduction                        |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Why am I who I am? - Part A |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Why am I who I am? - Part A |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1: Why am I who I am? - Part A |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 2: Why am I who I am? - Part B |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 2: Why am I who I am? - Part B |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 2: Why am I who I am? - Part B |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 2: Why am I who I am? - Part B |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Revision                            |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3: What's your story? - Part A |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 3: What's your story? - Part A |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 3: What's your story? - Part A |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 3: What's your story? - Part A |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4: What's your story? - Part B |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4: What's your story? - Part B |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 4: What's your story? - Part B |

|       |                             |                  |                           |
|-------|-----------------------------|------------------|---------------------------|
|       | 十七                          | Revision         | Questions and discussions |
|       | 十八                          | Semester Wrap-up | Reflection                |
|       | 十九                          |                  |                           |
|       | 二十                          |                  |                           |
|       | 二十一                         |                  |                           |
|       | 二十二                         |                  |                           |
|       |                             |                  |                           |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |                  |                           |
| 備註：   | 全英語授課                       |                  |                           |

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|-------------|-----------------------------------------------------------------------|-----------|
| 課程名稱：       | 中文名稱：生醫工程概論                                                           |           |
|             | 英文名稱：Introduction to Biomedical Engineering                           |           |
| 授課年段：       | 三上                                                                    | 學分總數：2    |
| 課程屬性：       | 跨領域/科目統整                                                              |           |
| 議題融入：       | 生命                                                                    |           |
| 師資來源：       | 外聘(大學)                                                                |           |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決,                                     |           |
|             | B溝通互動：B1.符號運用與溝通表達, B2.科技資訊與媒體素養, B3.藝術涵養與美感素養,                       |           |
|             | C社會參與：C2.人際關係與團隊合作,                                                   |           |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , |           |
| 學習目標：       | 參考12年國教新課綱內容，依授課進度條列：介紹符合生醫工程技術知識，簡介生醫工程相關領域研究，為結合物理、化學與生物跨領域課程       |           |
| 教學大綱：       | 週次/<br>序                                                              | 單元/主題     |
|             | 一                                                                     | 簡介與生物力學   |
|             | 二                                                                     | 簡介與生物力學   |
|             | 三                                                                     | 簡介與生物力學   |
|             | 四                                                                     | 生醫光學與雷射   |
|             | 五                                                                     | 生醫光學與雷射   |
|             | 六                                                                     | 生醫光學與雷射   |
|             | 七                                                                     | 生醫光學與雷射   |
|             | 八                                                                     | 生醫材料      |
|             | 九                                                                     | 校外參訪      |
|             | 十                                                                     | 生醫材料      |
|             | 十一                                                                    | 生醫材料      |
|             | 十二                                                                    | 生醫材料      |
|             | 十三                                                                    | 奈米生物科技    |
|             | 十四                                                                    | 奈米生物科技    |
|             | 十五                                                                    | 醫學影像處理與分析 |
|             | 十六                                                                    | 醫學影像處理與分析 |
|             | 十七                                                                    | 醫療資訊      |
|             | 十八                                                                    | 醫療資訊      |
|             | 十九                                                                    |           |
|             | 二十                                                                    |           |
|             | 二十一                                                                   |           |
|             | 二十二                                                                   |           |
| 學習評量：       | 學習日誌20%<br>作業20%<br>兩次定考40%<br>期末報告20%                                |           |
| 備註：         | 生物醫學工程導論 高材 林康平等編 滄海書                                                 |           |

|         |                                                                                                                                                                                                                                                 |                                              |                                                         |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------|
| 課程名稱：   | 中文名稱：地球史與生命演化(上)                                                                                                                                                                                                                                |                                              |                                                         |
|         | 英文名稱：Earth's History and Evolution I                                                                                                                                                                                                            |                                              |                                                         |
| 授課年段：   | 三上 學分總數：2                                                                                                                                                                                                                                       |                                              |                                                         |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                            |                                              |                                                         |
| 議題融入：   | 環境、海洋、閱讀素養                                                                                                                                                                                                                                      |                                              |                                                         |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                          |                                              |                                                         |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                               |                                              |                                                         |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                             |                                              |                                                         |
|         | C社會參與：C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                               |                                              |                                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                          |                                              |                                                         |
| 學習目標：   | This course develops your understanding of Earth, its place in the universe and the evolution of life. You will investigate the forces in the universe and solar system and will learn about the origin of life and how life evolves over time. |                                              |                                                         |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                            | 單元/主題                                        | 內容綱要                                                    |
|         | 一                                                                                                                                                                                                                                               | Introduction                                 | Scientific Investigation Skills and Career Exploration  |
|         | 二                                                                                                                                                                                                                                               | Introduction                                 | Scientific Investigation Skills and Career Exploration  |
|         | 三                                                                                                                                                                                                                                               | Unit 1: Astronomy                            | Lesson 1: The Big Bang                                  |
|         | 四                                                                                                                                                                                                                                               | Unit 1: Astronomy                            | Lesson 2: Electromagnetic radiation                     |
|         | 五                                                                                                                                                                                                                                               | Unit 1: Astronomy                            | Lesson 3: Stars                                         |
|         | 六                                                                                                                                                                                                                                               | Unit 1: Astronomy                            | Lesson 4: Measurement in astronomy                      |
|         | 七                                                                                                                                                                                                                                               | Revision                                     | Question and discussion                                 |
|         | 八                                                                                                                                                                                                                                               | Unit 2: Planetary science                    | Lesson 5: Structure of the solar system                 |
|         | 九                                                                                                                                                                                                                                               | Unit 2: Planetary science                    | Lesson 6: The physics of astronomy                      |
|         | 十                                                                                                                                                                                                                                               | Unit 2: Planetary science                    | Lesson 7: Formation and exploration of the solar system |
|         | 十一                                                                                                                                                                                                                                              | Unit 2: Planetary science                    | Lesson 8: Life on Earth and other worlds                |
|         | 十二                                                                                                                                                                                                                                              | Revision                                     | Question and discussion                                 |
|         | 十三                                                                                                                                                                                                                                              | Unit 3: Recording Earth's geological history | Lesson 9: Geology reveals the history of the Earth      |
|         | 十四                                                                                                                                                                                                                                              | Unit 3: Recording Earth's geological history | Lesson 10: Fossils                                      |
|         | 十五                                                                                                                                                                                                                                              | Unit 3: Recording Earth's geological history | Lesson 11: Measurement in geology                       |
|         | 十六                                                                                                                                                                                                                                              | Unit 3: Recording Earth's geological history | Lesson 12: Understanding the dynamic Earth              |
|         | 十七                                                                                                                                                                                                                                              | Revision                                     | Question and discussion                                 |
|         | 十八                                                                                                                                                                                                                                              | Semester wrap-up                             | Reflection                                              |
|         | 十九                                                                                                                                                                                                                                              |                                              |                                                         |
|         | 二十                                                                                                                                                                                                                                              |                                              |                                                         |
|         | 二十一                                                                                                                                                                                                                                             |                                              |                                                         |
|         | 二十二                                                                                                                                                                                                                                             |                                              |                                                         |
| 學習評量：   | 課堂互動(15%)、作業(70%)、專題報告(15%)                                                                                                                                                                                                                     |                                              |                                                         |

【備查版】

【備查版】



|         |                                                                                                                                        |                                                                           |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 西班牙語5                                                                                                                            |                                                                           |
|         | 英文名稱： Spanish 5                                                                                                                        |                                                                           |
| 授課年段：   | 三上                                                                                                                                     | 學分總數： 2                                                                   |
| 課程屬性：   | 第二外國語文                                                                                                                                 |                                                                           |
| 議題融入：   | 多元文化、國際教育                                                                                                                              |                                                                           |
| 師資來源：   | 外聘(其他)                                                                                                                                 |                                                                           |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進,                                                                                                                   |                                                                           |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                                   |                                                                           |
|         | C社會參與： C3.多元文化與國際理解,                                                                                                                   |                                                                           |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                           |
| 學習目標：   | 1.培養學生將基本西班牙文概念，運用於生活中說、聽、寫的能力。<br>2.增進學生對西班牙及拉丁美洲國家生活用語之不同的認識。<br>3.將學生學習之西班牙文，更深入的自由運用在閱讀、寫作與製作戲劇之中。                                 |                                                                           |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題                                                                     |
|         | 一                                                                                                                                      | 相見歡                                                                       |
|         | 二                                                                                                                                      | 學習語言                                                                      |
|         | 三                                                                                                                                      | 日常例行公事與消遣娛樂                                                               |
|         | 四                                                                                                                                      | 過往的經驗                                                                     |
|         | 五                                                                                                                                      | 美好童年                                                                      |
|         | 六                                                                                                                                      | 物品新與舊                                                                     |
|         | 七                                                                                                                                      | 過去與現在                                                                     |
|         | 八                                                                                                                                      | 表達同意/反對                                                                   |
|         | 九                                                                                                                                      | 文化饗宴                                                                      |
|         | 十                                                                                                                                      | 交通工具                                                                      |
|         | 十一                                                                                                                                     | 住宿類型                                                                      |
|         | 十二                                                                                                                                     | 過去式比較                                                                     |
|         | 十三                                                                                                                                     | 過去式比較II                                                                   |
|         |                                                                                                                                        | 內容綱要                                                                      |
|         |                                                                                                                                        | 使用西語與同學交流放假趣事<br>複習上學年所學內容                                                |
|         |                                                                                                                                        | 分享在其他國家語言交換的經驗<br>情態雙動詞片語:Dejar de / volver a / empezar a + infinitivo    |
|         |                                                                                                                                        | 表達每日例行公事<br>句型: Ir a + infinitivo<br>編擬一個活動行程表，並口述與同學分享                   |
|         |                                                                                                                                        | 複習動詞過去分詞，並使用完成式表述過去經驗<br>想像一個有趣的經驗並試著表達之                                  |
|         |                                                                                                                                        | 過去未完成式<br>表達過去的習慣<br>疑問句型: ¿ Cómo era tu infancia?<br>分享童年回憶              |
|         |                                                                                                                                        | 過去未完成式II<br>表述物品的功用<br>表述過去發生的事情                                          |
|         |                                                                                                                                        | 過去未完成式III<br>比較民國100年的台灣跟現在的台灣<br>描述以前的人事物風貌<br>假想如果你活在100年前的時代是怎麼樣?      |
|         |                                                                                                                                        | 表達認同: a mi también / a mi sí / a mi no / a mi tampoco<br>問問句，表達跟對方的意見一致與否 |
|         |                                                                                                                                        | 墨西哥亡靈節慶典                                                                  |
|         |                                                                                                                                        | 交通工具相關詞彙<br>疑問句型: “ Cómo vienes a la escuela” ?<br>評論哪種交通工具較好?為什麼?        |
|         |                                                                                                                                        | 旅遊住宿的類型並表達其偏好的類型遊戲: 飯店櫃台與遊客角色扮演                                           |
|         |                                                                                                                                        | 比較現在完成式與過去簡單式差異<br>表達上週做了什麼vs. 今天做了什麼                                     |
|         |                                                                                                                                        | 過去式文法大全複習<br>寫作:運用所有過去時態寫出一個故事，文長約500字                                    |

|                                      |     |          |                                           |
|--------------------------------------|-----|----------|-------------------------------------------|
|                                      | 十四  | 地理篇      | 地理特徵相關的詞彙<br>每位學生擇一西語系國家描述其地理環境           |
|                                      | 十五  | 大自然活動    | 大自然的戶外活動種類<br>規則與不規則動詞<br>分組活動：跟組員計畫一戶外活動 |
|                                      | 十六  | 周圍環境     | 環境與污染相關詞彙<br>分組活動：4人一組，討論可改善環境的方法         |
|                                      | 十七  | 影片製作     | 童年趣事回憶，片長約2分鐘                             |
|                                      | 十八  | 成果發表/再見歡 | 同學影片賞析                                    |
|                                      | 十九  |          |                                           |
|                                      | 二十  |          |                                           |
|                                      | 二十一 |          |                                           |
|                                      | 二十二 |          |                                           |
| 學習評量：課堂互動20%，小組合作20%，作品產出30%，複習測驗30% |     |          |                                           |
| 備註：                                  |     |          |                                           |

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|---------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 課程名稱：   | 中文名稱：法語5                                                                                                                               |                                                            |
|         | 英文名稱：French 5                                                                                                                          |                                                            |
| 授課年段：   | 三上                                                                                                                                     | 學分總數：2                                                     |
| 課程屬性：   | 第二外國語文                                                                                                                                 |                                                            |
| 議題融入：   | 多元文化、國際教育                                                                                                                              |                                                            |
| 師資來源：   | 外聘(其他)                                                                                                                                 |                                                            |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                    |                                                            |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                    |                                                            |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                    |                                                            |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                            |
| 學習目標：   | 1.培養學生將基本法文概念，運用於生活中說、聽、寫的能力。<br>2.增進學生對法國與歐洲國家生活用語之不同的認識。<br>3.將學生學習之法文，更深入的自由運用在閱讀、寫作與製作戲劇之中。                                        |                                                            |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題 內容綱要                                                 |
|         | 一                                                                                                                                      | New semester warm up Review of last semester French        |
|         | 二                                                                                                                                      | Grammar I Comparaison II                                   |
|         | 三                                                                                                                                      | Functional language I Place in town                        |
|         | 四                                                                                                                                      | Grammar II Verbs of movement                               |
|         | 五                                                                                                                                      | Functional language II Asking for directions               |
|         | 六                                                                                                                                      | Grammar III Expression of the future I                     |
|         | 七                                                                                                                                      | Semester Project I Preparation student' s project          |
|         | 八                                                                                                                                      | Semester Project II Collecting data and adjusting project  |
|         | 九                                                                                                                                      | Review Review the previous vocabulary and grammar          |
|         | 十                                                                                                                                      | French Culture I French poem                               |
|         | 十一                                                                                                                                     | Functional language III Object of the house                |
|         | 十二                                                                                                                                     | Grammar IV Preposition of place: up, close to, in front of |
|         | 十三                                                                                                                                     | Functional language IV Searching for an object             |
|         | 十四                                                                                                                                     | Grammar V Past tense II                                    |
|         | 十五                                                                                                                                     | Functional language V Expression of accomplishment         |
|         | 十六                                                                                                                                     | Semester Project III Finalization                          |
|         | 十七                                                                                                                                     | Project Presentation of the project                        |
|         | 十八                                                                                                                                     | French Culture II French architecture                      |
|         | 十九                                                                                                                                     |                                                            |
|         | 二十                                                                                                                                     |                                                            |
|         | 二十一                                                                                                                                    |                                                            |
|         | 二十二                                                                                                                                    |                                                            |
| 學習評量：   | 課堂互動 30 %、課堂實作 20 %、小組合作 30 %、作品產出20%                                                                                                  |                                                            |
| 備註：     |                                                                                                                                        |                                                            |

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|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 課程名稱：   | 中文名稱：社會變遷與挑戰(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                              |
|         | 英文名稱：Challenge and Change in Society I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                              |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 學分總數：3                                                       |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                              |
| 議題融入：   | 人權、環境、生命、法治、資訊、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                              |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                              |
|         | B溝通互動：B1.符號運用與溝通表達，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                              |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                              |
| 學習目標：   | This course focuses on the use of social science theories, perspectives, and methodologies to investigate and explain shifts in knowledge, attitudes, beliefs, and behavior and their impact on society. Students will critically analyze how and why cultural, social, and behavioral patterns change over time. They will explore the ideas of social theorists and use those ideas to analyze causes of and responses to challenges such as technological change, deviance, and global inequalities. Students will explore ways in which social science research methods can be used to study social change. |                                                              |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 單元/主題                                                        |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Introduction                                                 |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: What is social change?                               |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: What is social change?                               |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: What is social change?                               |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Revision                                                     |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2: How can I explain social change?                     |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2: How can I explain social change?                     |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2: How can I explain social change?                     |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 2: How can I explain social change?                     |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Revision                                                     |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 3: How does social change occur?                        |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 3: How does social change occur?                        |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 3: How does social change occur?                        |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Revision                                                     |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 4: What are some barriers to social change?             |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 4: What are some barriers to social change?             |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Revision                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 內容綱要                                                         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Course overview                                              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Getting started in this mad world: Introduction to sociology |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Methods to the madness: Sociological research examples       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Methods to the madness: Sociological research methods        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Questions and discussions                                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A model of inquiry                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A model of inquiry                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Doing it right                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Order in chaos: Putting it all together                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Questions and discussions                                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Let's be the change we want to see                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How do we change the world?                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Who creates change?                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Questions and discussions                                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Stepping up: Groups and social change                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | The sweeping pendulum of change                              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Questions and discussions                                    |

|       |     |                             |                         |
|-------|-----|-----------------------------|-------------------------|
|       | 十八  | Semester wrap-up            | Feedback and reflection |
|       | 十九  |                             |                         |
|       | 二十  |                             |                         |
|       | 二十一 |                             |                         |
|       | 二十二 |                             |                         |
|       |     |                             |                         |
| 學習評量： |     | 課堂互動(15%)、作業(70%)、專題報告(15%) |                         |
| 備註：   |     | 全英語授課                       |                         |

【備查版】

|         |                                                                                                               |             |
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| 課程名稱：   | 中文名稱：表演藝術中的科學概論                                                                                               |             |
|         | 英文名稱：Scientific theories in performance art                                                                   |             |
| 授課年段：   | 三上                                                                                                            | 學分總數：2      |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                   |             |
| 議題融入：   | 閱讀素養                                                                                                          |             |
| 師資來源：   | 校內單科                                                                                                          |             |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決,                                                                                           |             |
|         | B溝通互動：B2.科技資訊與媒體素養,                                                                                           |             |
|         | C社會參與：C2.人際關係與團隊合作,                                                                                           |             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |             |
| 學習目標：   | 培養學生探究實作,學理驗證,科學素養,問題解決,表達能力                                                                                  |             |
| 教學大綱：   | 週次/序                                                                                                          | 單元/主題       |
|         | 一                                                                                                             | 化學火山        |
|         | 二                                                                                                             | 水中點火        |
|         | 三                                                                                                             | 檸檬電池        |
|         | 四                                                                                                             | 紙張硝化纖維化實驗   |
|         | 五                                                                                                             | 分組演示        |
|         | 六                                                                                                             | 二鉻酸鉍之火山爆發   |
|         | 七                                                                                                             | 鋁箔紙和氫氧化鈉的反應 |
|         | 八                                                                                                             | 酒精噴火槍       |
|         | 九                                                                                                             | 口香糖紙點火      |
|         | 十                                                                                                             | 煙霧發聲器空氣炮    |
|         | 十一                                                                                                            | 分組演示        |
|         | 十二                                                                                                            | 液態氮雲        |
|         | 十三                                                                                                            | 真空鐵鋁罐       |
|         | 十四                                                                                                            | 漂浮船         |
|         | 十五                                                                                                            | 磁浮地球儀       |
|         | 十六                                                                                                            | 分組演示        |
|         | 十七                                                                                                            | 期末展演        |
|         | 十八                                                                                                            | 期末展演        |
|         | 十九                                                                                                            |             |
|         | 二十                                                                                                            |             |
|         | 二十一                                                                                                           |             |
|         | 二十二                                                                                                           |             |
| 學習評量：   | 實作評量40%, 演示評量40%, 形成式評量20%                                                                                    |             |
| 備註：     |                                                                                                               |             |



|         |                                                                                                                                        |                                                         |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 課程名稱：   | 中文名稱： 城市的歷史記憶（上）                                                                                                                       |                                                         |
|         | 英文名稱： Introduction to Taipei: History, Geography and Citizenship                                                                       |                                                         |
| 授課年段：   | 三上                                                                                                                                     | 學分總數： 2                                                 |
| 課程屬性：   | 跨領域/科目專題                                                                                                                               |                                                         |
| 議題融入：   | 性別平等、人權、環境、家庭教育、生涯規劃、多元文化、閱讀素養、戶外教育、原住民族教育                                                                                             |                                                         |
| 師資來源：   | 校內單科                                                                                                                                   |                                                         |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                     |                                                         |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                                   |                                                         |
|         | C社會參與： C1.道德實踐與公民意識, C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                       |                                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                         |
| 學習目標：   | 1.從建立同學對社區的歷史知識與歷史感覺，透過課程設計，讓學生了解臺北城中發展脈絡，及其在臺灣歷史發展中的角色與定位。<br>2.透過調查與歷史點的建置，深化學生對臺北城的瞭解與認識，並形成與生活空間的良性互動。                             |                                                         |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題                                                   |
|         | 一                                                                                                                                      | 課程介紹                                                    |
|         | 二                                                                                                                                      | 關於城市的記憶                                                 |
|         | 三                                                                                                                                      | 臺灣歷史地圖1                                                 |
|         | 四                                                                                                                                      | 臺灣歷史地圖2                                                 |
|         | 五                                                                                                                                      | 臺灣歷史地圖3                                                 |
|         | 六                                                                                                                                      | 城市中探討城事                                                 |
|         | 七                                                                                                                                      | 實地人文踏查                                                  |
|         | 八                                                                                                                                      | 歷史的偶然與必然                                                |
|         | 九                                                                                                                                      | 城中走讀成果報告                                                |
|         | 十                                                                                                                                      | 數位中的歷史1                                                 |
|         | 十一                                                                                                                                     | 數位中的歷史2                                                 |
|         | 十二                                                                                                                                     | 計畫中的城市1                                                 |
|         | 十三                                                                                                                                     | 計畫中的城市2                                                 |
|         | 十四                                                                                                                                     | 實地人文踏查                                                  |
|         | 十五                                                                                                                                     | 歷史的偶然與必然                                                |
|         | 十六                                                                                                                                     | 建立城鎮連結                                                  |
|         | 十七                                                                                                                                     | 城中走讀成果報告                                                |
|         | 十八                                                                                                                                     | 城中走讀成果報告                                                |
|         | 十九                                                                                                                                     |                                                         |
|         | 二十                                                                                                                                     |                                                         |
|         | 二十一                                                                                                                                    |                                                         |
|         |                                                                                                                                        | 內容綱要                                                    |
|         |                                                                                                                                        | 介紹課程綱要與本學期主要活動、分組                                       |
|         |                                                                                                                                        | 城市與人的共生記憶<br>我們如何愛上一座城？<br>記憶形塑了我們，也形塑了城。<br>記憶中的城市（故鄉） |
|         |                                                                                                                                        | 臺灣歷史的DNA                                                |
|         |                                                                                                                                        | 1. 早期臺灣<br>2. 清朝時代                                      |
|         |                                                                                                                                        | 1. 日本時代<br>2. 當代臺灣                                      |
|         |                                                                                                                                        | 臺北城的興起                                                  |
|         |                                                                                                                                        | 實地踏查、記錄                                                 |
|         |                                                                                                                                        | 資料整理、分析，綜合討論                                            |
|         |                                                                                                                                        | 1. 分組報告（ppt、word）<br>2. 海報製作                            |
|         |                                                                                                                                        | 可視化的歷史-GIS 理論與應用                                        |
|         |                                                                                                                                        | GIS 在歷史、地理學的利用與展示                                       |
|         |                                                                                                                                        | 請同學結合一組題（宗教、都市計畫、移民等）<br>分析這些議題對於城市的發展的影響               |
|         |                                                                                                                                        | 請同學結合一組題（宗教、都市計畫、移民等）<br>分析這些議題對於城市的發展的影響               |
|         |                                                                                                                                        | 實地踏查、記錄                                                 |
|         |                                                                                                                                        | 資料整理、分析，綜合討論                                            |
|         |                                                                                                                                        | 將城鎮歷史、地理的介紹放進生長地的連結，讓社會大眾對城鎮規劃有深度的認識                    |
|         |                                                                                                                                        | 1. 大型海報成果製作海報製作                                         |
|         |                                                                                                                                        | 2. 組間共學報告。                                              |



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|       | 二十<br>二                                                                        |  |  |
| 學習評量： | 1. 檔案評量（書面報告） 20%<br>2. 實作評量（實作、作業、鑑賞） 50%<br>3. 口語評量（口頭報告） 20%<br>4. 自我評量 10% |  |  |
| 備註：   |                                                                                |  |  |

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|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 英文文學專題探究(上)                                                                                                                                                                                                                                                                                                                                                               |                                                      |                                                                                                                                                                                                                                                                                                          |
|         | 英文名稱： Studies in Literature                                                                                                                                                                                                                                                                                                                                                     |                                                      |                                                                                                                                                                                                                                                                                                          |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                              | 學分總數： 3                                              |                                                                                                                                                                                                                                                                                                          |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                            |                                                      |                                                                                                                                                                                                                                                                                                          |
| 議題融入：   | 閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                       |                                                      |                                                                                                                                                                                                                                                                                                          |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                          |                                                      |                                                                                                                                                                                                                                                                                                          |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進,                                                                                                                                                                                                                                                                                                                                                            |                                                      |                                                                                                                                                                                                                                                                                                          |
|         | B溝通互動： B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                              |                                                      |                                                                                                                                                                                                                                                                                                          |
|         | C社會參與： C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                            |                                                      |                                                                                                                                                                                                                                                                                                          |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                              |                                                      |                                                                                                                                                                                                                                                                                                          |
| 學習目標：   | This course is for students with a special interest in literature and literary criticism. The course may focus on themes, genres, time periods, or countries. You will analyze a range of forms and stylistic elements of literary texts and respond personally, critically, and creatively to them. You will also assess critical interpretations and write analytical essays. |                                                      |                                                                                                                                                                                                                                                                                                          |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                            | 單元/主題                                                | 內容綱要                                                                                                                                                                                                                                                                                                     |
|         | 一                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: Introduction to literary theory and analysis | Lesson 1: What is literature?<br>How can literature increase our understanding of ourselves both as readers and as individuals?                                                                                                                                                                          |
|         | 二                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: Introduction to literary theory and analysis | Lesson 2: Introduction to theories of literary criticism<br>Students will identify a variety of reading comprehension strategies, select those that are most appropriate for specific reading purposes and tasks, and use them before, during, and after reading to enhance their understanding of texts |
|         | 三                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: Introduction to literary theory and analysis | Lesson 2: Introduction to theories of literary criticism<br>Students will identify a variety of reading comprehension strategies, select those that are most appropriate for specific reading purposes and tasks, and use them before, during, and after reading to enhance their understanding of texts |
|         | 四                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: Introduction to literary theory and analysis | Lesson 3: New reading theory and Sweetness in the Belly<br>Students will read a variety of types of literary texts by authors from a variety of backgrounds, cultures, and time periods                                                                                                                  |
|         | 五                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: Introduction to literary theory and analysis | Lesson 3: New reading theory and Sweetness in the Belly<br>Students will read a variety of types of literary texts by authors from a variety of backgrounds, cultures, and time periods                                                                                                                  |
|         | 六                                                                                                                                                                                                                                                                                                                                                                               | Unit 1: Introduction to literary theory and analysis | Lesson 4: The narrator, narrative structures and techniques<br>Students will analyze texts to identify particular perspectives identify a purpose (or purposes) for reading particular texts                                                                                                             |

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| 七  | Unit 1: Introduction to literary theory and analysis | Lesson 4: The narrator, narrative structures and techniques<br>Students will analyze texts to identify particular perspectives identify a purpose (or purposes) for reading particular texts                                         |
| 八  | Unit 1: Introduction to literary theory and analysis | Lesson 5: Characters and immigrant experiences<br>Students will explain how literary texts raise awareness about a range of topics, issues, ideas, cultures, events, and people                                                      |
| 九  | Unit 1: Introduction to literary theory and analysis | Lesson 5: Characters and immigrant experiences<br>Students will explain how literary texts raise awareness about a range of topics, issues, ideas, cultures, events, and people                                                      |
| 十  | Unit 2: Archetypal literary theory                   | Lesson 6: Northrop Frye on archetypal literary theory<br>Students will respond to texts in a variety of ways before, during, and after reading to extend their understanding of the ideas, themes, language, and issues in the texts |
| 十一 | Unit 2: Archetypal literary theory                   | Lesson 7: Interpretations of mythology and Jung's "Collective Unconscious"<br>Students will explain how the characteristics of different text forms help communicate meaning in a variety of literary texts                          |
| 十二 | Unit 2: Archetypal literary theory                   | Lesson 7: Interpretations of mythology and Jung's "Collective Unconscious"<br>Students will explain how the characteristics of different text forms help communicate meaning in a variety of literary texts                          |
| 十三 | Unit 2: Archetypal literary theory                   | Lesson 8: The archetypal five-phase hero journey formula<br>Students will analyze texts in terms of the information, ideas, issues, and themes they explore, providing evidence from the texts to support their analysis             |
| 十四 | Unit 2: Archetypal literary theory                   | Lesson 8: The archetypal five-phase hero journey formula<br>Students will analyze texts in terms of the information, ideas, issues, and themes they explore, providing evidence from the texts to support their analysis             |
| 十五 | Unit 2: Archetypal literary theory                   | Lesson 9: The hero quest in Stephen King's "The Body"<br>Students will identify various elements of style used in texts and explain how they help communicate meaning and enhance the effectiveness of the text                      |
| 十六 | Unit 2: Archetypal literary theory                   | Lesson 9: The hero quest in Stephen King's "The Body"<br>Students will identify various elements of style used in texts and explain how they help communicate meaning and enhance the effectiveness of the text                      |
| 十七 | Unit 2: Archetypal literary theory                   | Lesson 10: The hero realization<br>Students will explain how the study of lit                                                                                                                                                        |

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|       |                             |                                    | erature has contributed to their understanding of human nature                                                                              |
|       | 十八                          | Unit 2: Archetypal literary theory | Lesson 10: The hero realization<br>Students will explain how the study of literature has contributed to their understanding of human nature |
|       | 十九                          |                                    |                                                                                                                                             |
|       | 二十                          |                                    |                                                                                                                                             |
|       | 二十一                         |                                    |                                                                                                                                             |
|       | 二十二                         |                                    |                                                                                                                                             |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |                                    |                                                                                                                                             |
| 備註：   | 全英語授課                       |                                    |                                                                                                                                             |

【備查版】

【備查版】

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| 課程名稱：   | 中文名稱：英文作家作品分析與實作(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                  |
|         | 英文名稱：The Writer's Craft                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                  |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 學分總數：2                                                                                                                                                                                                                                                                           |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                  |
| 議題融入：   | 閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                  |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                  |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                  |
|         | B溝通互動：B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                  |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                  |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                  |
| 學習目標：   | This course emphasizes knowledge and skills related to the craft of writing. Students will analyze models of effective writing; use a workshop approach to produce a range of works; identify and use techniques required for specialized forms of writing; and identify effective ways to improve the quality of their writing. They will also complete a major paper as part of a creative or analytical independent study project and investigate opportunities for publication and for writing careers. |                                                                                                                                                                                                                                                                                  |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 單元/主題 內容綱要                                                                                                                                                                                                                                                                       |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1: Writing, writers, and the writing life<br>Lesson 1: The art and craft of writing<br>Students will read a range of teacher- and self-selected models of effective writing to become familiar with the art, craft, and world of writing                                    |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1: Writing, writers, and the writing life<br>Lesson 2: Inside the writer's mind<br>Students will demonstrate an understanding of the art and craft of writing after examining interviews with and articles by writers about their writing practices, processes, and beliefs |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1: Writing, writers, and the writing life<br>Lesson 2: Inside the writer's mind<br>Students will demonstrate an understanding of the art and craft of writing after examining interviews with and articles by writers about their writing practices, processes, and beliefs |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1: Writing, writers, and the writing life<br>Lesson 3: A unique perspective<br>Students will explain various ways in which works by selected writers from around the world are influenced by the writers' personal experiences, beliefs, and socio-cultural contexts        |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1: Writing, writers, and the writing life<br>Lesson 3: A unique perspective<br>Students will explain various ways in which works by selected writers from around the world are influenced by the writers' personal experiences, beliefs, and socio-cultural contexts        |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1: Writing, writers, and the writing life<br>Lesson 4: The challenge of writing<br>Students will analyze and assess the effectiveness of the ways in which writers use elements of style                                                                                    |

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| 七  | Unit 1: Writing, writers, and the writing life | Lesson 4: The challenge of writing<br>Students will analyze and assess the effectiveness of the ways in which writers use elements of style                                                             |
| 八  | Unit 1: Writing, writers, and the writing life | Lesson 5: The writer's toolbox<br>Students will analyze and assess the effectiveness of the ways in which writers use elements of form                                                                  |
| 九  | Unit 1: Writing, writers, and the writing life | Lesson 5: The writer's toolbox<br>Students will analyze and assess the effectiveness of the ways in which writers use elements of form                                                                  |
| 十  | Unit 2: Writing for recreation: Fiction        | Lesson 6: Setting the scene<br>Students will use text forms and stylistic elements in experimental ways to develop an effective personal writing style                                                  |
| 十一 | Unit 2: Writing for recreation: Fiction        | Lesson 7: What makes a character?<br>Students will identify and explain specific creative choices they made throughout the writing process to help them better understand the art of writing            |
| 十二 | Unit 2: Writing for recreation: Fiction        | Lesson 7: What makes a character?<br>Students will identify and explain specific creative choices they made throughout the writing process to help them better understand the art of writing            |
| 十三 | Unit 2: Writing for recreation: Fiction        | Lesson 8: Conflict and point of view<br>Students will provide constructive feedback to peers on works in progress by working with a partner or as a group in a workshop setting                         |
| 十四 | Unit 2: Writing for recreation: Fiction        | Lesson 8: Conflict and point of view<br>Students will provide constructive feedback to peers on works in progress by working with a partner or as a group in a workshop setting                         |
| 十五 | Unit 2: Writing for recreation: Fiction        | Lesson 9: Dialogue<br>Students will assess peers' written drafts, working with a partner or as a group in a workshop setting, to aid peers in their revision process                                    |
| 十六 | Unit 2: Writing for recreation: Fiction        | Lesson 9: Dialogue<br>Students will assess peers' written drafts, working with a partner or as a group in a workshop setting, to aid peers in their revision process                                    |
| 十七 | Unit 2: Writing for recreation: Fiction        | Lesson 10: Creating and publishing a short story<br>Students will generate and explore ideas for potential writing projects independently through reflection, reading, listening, viewing, and research |
| 十八 | Unit 2: Writing for recreation: Fiction        | Lesson 10: Creating and publishing a short story<br>Students will generate and explore ideas for potential writing projects independently through reflection, reading, listening, viewing, and research |
| 十九 |                                                |                                                                                                                                                                                                         |
| 二十 |                                                |                                                                                                                                                                                                         |

|       |                             |  |
|-------|-----------------------------|--|
|       | 二十一                         |  |
|       | 二十二                         |  |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |  |
| 備註：   | 全英語授課                       |  |



|             |                                                                                                               |         |                  |
|-------------|---------------------------------------------------------------------------------------------------------------|---------|------------------|
| 課程名稱：       | 中文名稱： 航太工程概論(上)                                                                                               |         |                  |
|             | 英文名稱： Introduction To Aeronautical                                                                            |         |                  |
| 授課年段：       | 三上                                                                                                            |         | 學分總數： 2          |
| 課程屬性：       | 跨領域/科目統整                                                                                                      |         |                  |
| 議題融入：       | 科技、資訊、閱讀素養                                                                                                    |         |                  |
| 師資來源：       | 外聘(其他)                                                                                                        |         |                  |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                            |         |                  |
|             | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                            |         |                  |
|             | C社會參與： C2.人際關係與團隊合作,                                                                                          |         |                  |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |         |                  |
| 學習目標：       | 對於航太工程以深入淺出的廣泛介紹，以期學生對於航太工程各領域都有相當程度的了解。課程特別強調：航空工程各氣動力學的原理與實際運用。                                             |         |                  |
| 教學大綱：       | 週次/<br>序                                                                                                      | 單元/主題   | 內容綱要             |
|             | 一                                                                                                             | 飛行史話    | 人類飛行發展史          |
|             | 二                                                                                                             | 大氣概況    | 大氣現況飛行與大氣的關係     |
|             | 三                                                                                                             | 飛機簡介    | 飛機之基本架構          |
|             | 四                                                                                                             | 飛機簡介    | 飛機之發展現況與未來發展方向   |
|             | 五                                                                                                             | 基本空氣動力學 | 基本空氣動力學原理介紹      |
|             | 六                                                                                                             | 基本空氣動力學 | 基本空氣動力學飛機上的運用    |
|             | 七                                                                                                             | 升力與阻力   | 升力的種類與來源         |
|             | 八                                                                                                             | 升力與阻力   | 阻力的種類與來源         |
|             | 九                                                                                                             | 校外學習週   | 參觀淡江航空太空系        |
|             | 十                                                                                                             | 機翼      | 機翼種類與分析          |
|             | 十一                                                                                                            | 機翼      | 機翼設計原理           |
|             | 十二                                                                                                            | 控制與平衡   | 三方向控制原理與設計       |
|             | 十三                                                                                                            | 控制與平衡   | 三軸旋轉控制與原理        |
|             | 十四                                                                                                            | 控制與平衡   | 綜合飛行姿態變化         |
|             | 十五                                                                                                            | 實作(一)   | 彈射與手擲滑翔機設計與製造(一) |
|             | 十六                                                                                                            | 實作(一)   | 彈射與手擲滑翔機設計與製造(二) |
|             | 十七                                                                                                            | 實作(一)   | 彈射與手擲滑翔機設計與製造(三) |
|             | 十八                                                                                                            | 期末檢討    | 飛行競賽             |
|             | 十九                                                                                                            |         |                  |
|             | 二十                                                                                                            |         |                  |
|             | 二十一                                                                                                           |         |                  |
| 二十二         |                                                                                                               |         |                  |
| 學習評量：       | 平時（課堂討論、發言）40%，期中考(簡報)30%，期末考(手擲機製作)30%                                                                       |         |                  |
| 備註：         | 使用 飛行工程概論(修訂版) 夏樹仁 全華圖書                                                                                       |         |                  |

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|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 課程名稱：       | 中文名稱：商業溝通與科技(上)                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |
|             | 英文名稱：Business and Technological Communication I                                                                                                                                                                                                                                                                                                                                                                                       |                                             |
| 授課年段：       | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數：3                                      |
| 課程屬性：       | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |
| 議題融入：       | 科技、生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |
|             | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |
|             | C社會參與：C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                       |                                             |
| 學習目標：       | This course emphasizes practical writing and communication skills that are needed in the world of business and technology. You will analyze the characteristics of effective models of business and technical communications; gather information to write reports, business letters, memos, manuals, instructions, and brochures; and integrate graphics and text, using technology appropriately for formatting and special effects. |                                             |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題                                       |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 The basics of business communication |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 The basics of business communication |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 The basics of business communication |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 The basics of business communication |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 1 The basics of business communication |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                     | Review                                      |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 2 Formats and features                 |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 2 Formats and features                 |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 2 Formats and features                 |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 2 Formats and features                 |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 2 Formats and features                 |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                    | Review                                      |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Project                               |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Project                               |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Project                               |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Project                               |
|             | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Project                               |
|             | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                    | Wrap-Up                                     |
|             | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |
|             | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |
|             | 二十一                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |

|       |                              |  |  |
|-------|------------------------------|--|--|
|       | 二十<br>二                      |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英文授課                        |  |  |

【備 查 版】

【備 查 版】

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|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：商業領導管理概論(上)                                                                                                                                                                                                                                                                                                                                                                           |                                                                               |                                                                                                                                                                                                    |
|         | 英文名稱：Business Leadership: Management Fundamentals                                                                                                                                                                                                                                                                                                                                          |                                                                               |                                                                                                                                                                                                    |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                                         | 學分總數：3                                                                        |                                                                                                                                                                                                    |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                       |                                                                               |                                                                                                                                                                                                    |
| 議題融入：   | 生命、資訊、閱讀素養                                                                                                                                                                                                                                                                                                                                                                                 |                                                                               |                                                                                                                                                                                                    |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                     |                                                                               |                                                                                                                                                                                                    |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                           |                                                                               |                                                                                                                                                                                                    |
|         | B溝通互動：B1.符號運用與溝通表達，                                                                                                                                                                                                                                                                                                                                                                        |                                                                               |                                                                                                                                                                                                    |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                              |                                                                               |                                                                                                                                                                                                    |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                   |                                                                               |                                                                                                                                                                                                    |
| 學習目標：   | This course focuses on the development of leadership skills used in managing a successful business. You will analyze the role of a leader in business with a focus on decision-making, management of group dynamics, workplace stress and conflict, motivation of employees, and planning. Effective business communication skills, ethics, and social responsibility are also emphasized. |                                                                               |                                                                                                                                                                                                    |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                                                         | 內容綱要                                                                                                                                                                                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                          | Unit 1: Management fundamentals<br>Lesson 1: Characteristics of organizations | Identifying the characteristics of an organization (e.g. purpose, division of labor, hierarchy of authority).                                                                                      |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 2: Levels of management                                                | Evaluating the different levels of management with respect to roles, responsibilities, activities, skills, and competencies;                                                                       |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 3: Management theories                                                 | Evaluating major management theories and practices (e.g., classical, behavioral, quantitative approach, systems theories; total quality management).                                               |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 4: Business communication                                              | Demonstrating the effective use of information and communication technology (e.g., word processing software, e-mail, electronic research tools) for a variety of management purposes               |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 4: Business communication                                              | Demonstrating the effective use of information and communication technology (e.g., word processing software, e-mail, electronic research tools) for a variety of management purposes               |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 4: Business communication                                              | Demonstrating an understanding of management concepts and theories discussed in relation to current business issues in a variety of sources (e.g., newspapers, magazines, documentaries, websites) |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 5: Communication in the workplace                                      | Using proper business vocabulary in oral and written communication                                                                                                                                 |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 5: Communication in the workplace                                      | Demonstrating effective use of business communication documents (e.g., business reports, correspondence)                                                                                           |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                          | Unit 2: Planning and organizing<br>Lesson 6: The importance of planning       | Describing the planning process and its benefits to the organization (e.g., flexibility, coordination, time management)                                                                            |

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|       | +                                                      | Lesson 6: The importance of planning    | Applying different problem-solving strategies to a variety of management planning challenges; analyzing the importance of individual and group creativity in planning.                                                                                                           |
|       | 十一                                                     | Lesson 7: Planning tools and techniques | Describing tools and strategies used in the planning process (e.g., participatory planning, benchmarking, scenario planning);                                                                                                                                                    |
|       | 十二                                                     | Lesson 7: Planning tools and techniques | Explaining the use of effective short-term planning tools and strategies (e.g., policies, operational plans, planning approaches) and long-term planning tools (e.g., budgets, strategic plans, simulations, forecasts);                                                         |
|       | 十三                                                     | Lesson 8: Strategic planning            | Explaining the importance of the strategic planning process and describe the levels of strategic planning (corporate, business, functional) in an organization; describing the types of strategic plans (e.g., growth, retrenchment, e-business) used by specific organizations; |
|       | 十四                                                     | Lesson 8: Strategic planning            | Analyzing organizational strategic plans, using a variety of management tools (e.g., SWOT analysis; political, environmental, social, technological analysis; Porter's five forces competitive model);                                                                           |
|       | 十五                                                     | Lesson 9: Organizational structures     | analyze the two levels of corporate culture (core and observable) and describe the relationship between corporate culture and strategic planning                                                                                                                                 |
|       | 十六                                                     | Lesson 10: The changing nature of work  | Analyzing the elements that bring about change in an organization (e.g., developments in information technology, implementation of a growth plan, evolution of the organizational culture);                                                                                      |
|       | 十七                                                     | Lesson 10: The changing nature of work  | analyzing the reasons for various attitudes towards change (e.g., why individuals fear change, why individuals embrace change); evaluating different strategies used by managers to bring about acceptance of planned change (e.g., education, shared power, negotiation)        |
|       | 十八                                                     | Semester wrap-up                        | Revision, feedback and discussions                                                                                                                                                                                                                                               |
|       | 十九                                                     |                                         |                                                                                                                                                                                                                                                                                  |
|       | 二十                                                     |                                         |                                                                                                                                                                                                                                                                                  |
|       | 二十一                                                    |                                         |                                                                                                                                                                                                                                                                                  |
|       | 二十二                                                    |                                         |                                                                                                                                                                                                                                                                                  |
| 學習評量： | Lesson 20: A case study<br>課堂互動(15%)、作業(70%)、專題報告(15%) |                                         |                                                                                                                                                                                                                                                                                  |
| 備註：   | 全英語授課                                                  |                                         |                                                                                                                                                                                                                                                                                  |

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|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：國際商業概論(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                          |                                                                                                                                                 |
|         | 英文名稱：International Business Fundamentals                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                          |                                                                                                                                                 |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 學分總數：3                                                                                   |                                                                                                                                                 |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                          |                                                                                                                                                 |
| 議題融入：   | 法治、資訊、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                          |                                                                                                                                                 |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                          |                                                                                                                                                 |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                          |                                                                                                                                                 |
|         | B溝通互動：B1.符號運用與溝通表達，                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                          |                                                                                                                                                 |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                          |                                                                                                                                                 |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                          |                                                                                                                                                 |
| 學習目標：   | This course provides an overview of the importance of international business and trade in the global economy and explores the factors that influence success in international markets. You will learn about the techniques and strategies associated with marketing, distribution, and managing international business effectively. This course prepares you for postsecondary programs in business, including international business, marketing, and management. |                                                                                          |                                                                                                                                                 |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題                                                                                    | 內容綱要                                                                                                                                            |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Introduction                                                                             | Business, trade, and the economy                                                                                                                |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Types of international businesses                                                        | Import/export, global sourcing, joint ventures, strategic alliances, wholly owned subsidiaries                                                  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1: What are the basics? - Part A How has international business affected Taiwan?    | Analyzing the impact of international business activity on Taiwan's economy.                                                                    |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | The language of international business                                                   | Looking at terminology, concepts, and basic business communication practices related to international business.                                 |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 2: What are the basics? - Part B Factors that affect foreign trade                  | Looking at how the state of a country's economy (e.g., inflation rate, unemployment rate, productivity levels) affects international businesses |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Factors that affect foreign trade                                                        | Describing the effects of barriers and obstacles to international business activity.                                                            |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | International business                                                                   | Describing ways in which international business activity develops interdependence among nations                                                 |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How does a country attract foreign investment?                                           | Looking at the factors that influence a country's ability to participate in international business                                              |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Revision                                                                                 | Questions and discussions                                                                                                                       |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 3: What is the global environment? - Part A How has globalization changed business? | Competition, employment, exchange of technology, knowledge/information transfer                                                                 |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Technology, currency values, and international trade                                     | Analyzing the ways in which cultural factors influence international business methods and operations                                            |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Government policy, agreements, and international trade                                   | Assessing the ways in which political, economic, and geographic factors influence international business methods and operations                 |

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|                                  | 十三  | Unit 4: What is the global environment? - Part B The impact of changes in the global economy | Analyzing ways in which Taiwanese businesses have been affected by globalization            |
|                                  | 十四  | Current trends in international business Current trends in international business            | Assessing the effects of current trends in global business activity and economic conditions |
|                                  | 十五  | Revision                                                                                     | Questions and discussions                                                                   |
|                                  | 十六  | Mini project - A Case Study                                                                  | Presentation and feedback                                                                   |
|                                  | 十七  | Mini project - A Case Study                                                                  | Presentation and feedback                                                                   |
|                                  | 十八  | Semester wrap-up                                                                             | Feedback and reflection                                                                     |
|                                  | 十九  |                                                                                              |                                                                                             |
|                                  | 二十  |                                                                                              |                                                                                             |
|                                  | 二十一 |                                                                                              |                                                                                             |
|                                  | 二十二 |                                                                                              |                                                                                             |
| 學習評量：課堂互動(15%)、作業(70%)、專題報告(15%) |     |                                                                                              |                                                                                             |
| 備註：全英語授課                         |     |                                                                                              |                                                                                             |

【備查版】

【備查版】



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| 課程名稱：       | 中文名稱：國際議題探究III                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                       |
|             | 英文名稱：Global Issues III                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                       |
| 授課年段：       | 三上                                                                                                                                                                                                                                                                                                                                                            | 學分總數：3                                                                                                                                                                                                                                                                                |
| 課程屬性：       | 通識性課程                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                       |
| 議題融入：       | 能源、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                       |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                       |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                       |
|             | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                       |
|             | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                       |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。3.個性完善：愛心熱誠、誠信正直、自律自省。4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                       |
| 學習目標：       | Global Issues embraces a multidisciplinary approach in understanding the increasingly complex questions confronting the world today. Understanding global problems is the initial stage towards conceiving globalized solutions. This course capitalizes and centers on the privileged position of the youth in their ability to passion a better generation. |                                                                                                                                                                                                                                                                                       |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                                                                                                                                                 |
|             | 一                                                                                                                                                                                                                                                                                                                                                             | Unit 1 Climate Change                                                                                                                                                                                                                                                                 |
|             | 二                                                                                                                                                                                                                                                                                                                                                             | Unit 1 Climate Change                                                                                                                                                                                                                                                                 |
|             | 三                                                                                                                                                                                                                                                                                                                                                             | Unit 1 Climate Change                                                                                                                                                                                                                                                                 |
|             | 四                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Water                                                                                                                                                                                                                                                                          |
|             | 五                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Water                                                                                                                                                                                                                                                                          |
|             | 六                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Water                                                                                                                                                                                                                                                                          |
|             | 七                                                                                                                                                                                                                                                                                                                                                             | Unit 2 Water                                                                                                                                                                                                                                                                          |
|             | 八                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Global Convergence of Information Technology                                                                                                                                                                                                                                   |
|             | 九                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Global Convergence of Information Technology                                                                                                                                                                                                                                   |
|             |                                                                                                                                                                                                                                                                                                                                                               | 內容綱要                                                                                                                                                                                                                                                                                  |
|             |                                                                                                                                                                                                                                                                                                                                                               | Sustainable Development and Climate Change<br>How can sustainable development be achieved for all while addressing global climate change?                                                                                                                                             |
|             |                                                                                                                                                                                                                                                                                                                                                               | Understand the causes and effects of human interaction with the environment.                                                                                                                                                                                                          |
|             |                                                                                                                                                                                                                                                                                                                                                               | Issue of environmental justice, and solutions to relevant national and international governmental and/or nongovernmental organizations.                                                                                                                                               |
|             |                                                                                                                                                                                                                                                                                                                                                               | How can everyone have sufficient clean water without conflict?                                                                                                                                                                                                                        |
|             |                                                                                                                                                                                                                                                                                                                                                               | Integrate the lessons learned from producing more food with less water via drip irrigation and precision agriculture, rainwater collection and irrigation, watershed management, selective introduction of water pricing, and successful community-scale projects around the world. • |
|             |                                                                                                                                                                                                                                                                                                                                                               | Investigate water-scarce regions around the world and methods being developed to assist.                                                                                                                                                                                              |
|             |                                                                                                                                                                                                                                                                                                                                                               | Analyze the relationships and tensions between national sovereignty and global interest in matters such as territory, economic development, use of natural resources, and human rights.                                                                                               |
|             |                                                                                                                                                                                                                                                                                                                                                               | Analyze the online resources they encounter to determine the validity of the information and the website.                                                                                                                                                                             |
|             |                                                                                                                                                                                                                                                                                                                                                               | Assess the role of increased personal and business electronic communications in creating a “global” culture, and evaluate                                                                                                                                                             |

|                                   |                                                     |                                                                                                                                                                                        |
|-----------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   |                                                     | the impact on traditional cultures and values.                                                                                                                                         |
| +                                 | Unit 3 Global Convergence of Information Technology | Explain the need for each individual, as a member of the global community, to practice cyber safety, cyber security, and cyber ethics when using existing and emerging technologies. • |
| 十一                                | Unit 4 The Gap between the Rich and the Poor        | Evaluate efforts of governmental, nongovernmental, and international organizations to address economic imbalances and social inequalities.                                             |
| 十二                                | Unit 4 The Gap between the Rich and the Poor        | Compare and contrast demographic trends in industrialized and developing nations                                                                                                       |
| 十三                                | Unit 4 The Gap between the Rich and the Poor        | Evaluate the potential impact of these trends on the economy, political stability, and use of resources.                                                                               |
| 十四                                | Final Project                                       | Presentation & Feedback                                                                                                                                                                |
| 十五                                | Final Project                                       | Presentation & Feedback                                                                                                                                                                |
| 十六                                | Wrap-Up                                             | Reflections & Final Thoughts                                                                                                                                                           |
| 十七                                |                                                     |                                                                                                                                                                                        |
| 十八                                |                                                     |                                                                                                                                                                                        |
| 十九                                |                                                     |                                                                                                                                                                                        |
| 二十                                |                                                     |                                                                                                                                                                                        |
| 二十一                               |                                                     |                                                                                                                                                                                        |
| 二十二                               |                                                     |                                                                                                                                                                                        |
| 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                     |                                                                                                                                                                                        |
| 備註：                               |                                                     |                                                                                                                                                                                        |

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|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：進階函數                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                        |
|         | 英文名稱：Advanced Functions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                        |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 學分總數：3                                                                                                                                                                                                                                                                                                                                                 |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                        |
| 議題融入：   | 生命、資訊                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                        |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                        |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                        |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
|         | C社會參與：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                        |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                        |
| 學習目標：   | This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; develop techniques for combining functions; broaden their understanding of rates of change; and develop facility in applying these concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended both for students taking the Calculus and Vectors course as a prerequisite for a university program and for those wishing to consolidate their understanding of mathematics before proceeding to any one of a variety of university programs. |                                                                                                                                                                                                                                                                                                                                                        |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題                                                                                                                                                                                                                                                                                                                                                  |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1: Exponential Functions - A Lesson 1: Exponential Functions                                                                                                                                                                                                                                                                                      |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1: Exponential Functions - A Lesson 2: Introduction to logarithms                                                                                                                                                                                                                                                                                 |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 1: Exponential Functions - A Lesson 2: Introduction to logarithms                                                                                                                                                                                                                                                                                 |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 2: Exponential and Logarithmic Functions - B Lesson 3: Graphs of logarithmic functions                                                                                                                                                                                                                                                            |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 2: Exponential and Logarithmic Functions - B Lesson 3: Graphs of logarithmic functions                                                                                                                                                                                                                                                            |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 2: Exponential and Logarithmic Functions - B Lesson 3: Graphs of logarithmic functions                                                                                                                                                                                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 內容綱要                                                                                                                                                                                                                                                                                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Students will solve exponential equations in one variable by determining a common base                                                                                                                                                                                                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Students will recognize the logarithm of a number to a given base as the exponent to which the base must be raised to get the number, recognize the operation of finding the logarithm to be the inverse operation (i.e., the undoing or reversing) of exponentiation                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Students will make connections between related logarithmic and exponential equations                                                                                                                                                                                                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Students will determine, through investigation with technology (e.g., graphing calculator, spreadsheet) and without technology, key features (i.e., vertical and horizontal asymptotes, domain and range, intercepts, increasing/decreasing behavior) of the graphs of logarithmic functions of the form                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Students will recognize the relationship between an exponential function and the corresponding logarithmic function to be that of a function and its inverse, deduce that the graph of a logarithmic function is the reflection of the graph of the corresponding exponential function in the line $y = x$ , and verify the deduction using technology |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Students will determine, through investigation using technology, the roles of the pa                                                                                                                                                                                                                                                                   |

|    |                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | aphs of logarithmic functions                                                                                    | parameters $d$ and $c$ in functions of the form $y = \log(x - d) + c$ and the roles of the parameters $a$ and $k$ in functions of the form $y = a \log(kx)$ , and describe these roles in terms of transformations graph of $f(x) = \log_{10}x$                                                                                                                                                                                      |
| 七  | Unit 2: Exponential and Logarithmic Functions - B Lesson 3: Graphs of logarithmic functions                      | Students will pose problems based on real-world applications of exponential and logarithmic functions (e.g., exponential growth and decay, the Richter scale, the pH scale, the decibel scale), and solve these and other such problems by using a given graph or a graph generated with technology from a table of values or from its equation                                                                                      |
| 八  | Unit 2: Exponential and Logarithmic Functions - B Lesson 5: Exponential and logarithmic functions                | Students will recognize equivalent algebraic expressions involving logarithms and exponents, and simplify expressions of these types                                                                                                                                                                                                                                                                                                 |
| 九  | Unit 2: Exponential and Logarithmic Functions - B Lesson 5: Exponential and logarithmic functions                | Students will solve problems involving exponential and logarithmic equations algebraically, including problems arising from real-world applications                                                                                                                                                                                                                                                                                  |
| 十  | Unit 3: Polynomial and Rational Functions - A Lesson 6: Polynomial functions                                     | Students will recognize a polynomial expression (i.e., a series of terms where each term is the product of a constant and a power of $x$ with a nonnegative integral exponent, such as $x^3 - 5x^2 + 2x - 1$ )                                                                                                                                                                                                                       |
| 十一 | Unit 3: Polynomial and Rational Functions - A Lesson 7: Polynomial equations and graphs                          | Students will compare, through investigation using graphing technology, the numeric, graphical, and algebraic representations of polynomial (i.e., linear, quadratic, cubic, quartic) functions                                                                                                                                                                                                                                      |
| 十二 | Unit 3: Polynomial and Rational Functions - A Lesson 7: Polynomial equations and graphs                          | Students will describe key features of the graphs of polynomial functions                                                                                                                                                                                                                                                                                                                                                            |
| 十三 | Unit 3: Polynomial and Rational Functions - A Lesson 8: Transformations and applications of polynomial functions | Students will determine an equation of a polynomial function that satisfies a given set of conditions (e.g., degree of the polynomial, intercepts, points on the function), using methods appropriate to the situation                                                                                                                                                                                                               |
| 十四 | Unit 3: Polynomial and Rational Functions - A Lesson 8: Transformations and applications of polynomial functions | Students will determine, through investigation, and compare the properties of even and odd polynomial functions                                                                                                                                                                                                                                                                                                                      |
| 十五 | Unit 4: Polynomial and Rational Functions - B Lesson 9: Rational functions                                       | Students will determine, through investigation with and without technology, key features (i.e., vertical and horizontal asymptotes, domain and range, intercepts, positive/negative intervals, increasing/decreasing intervals) of the graphs of rational functions that are the reciprocals of linear and quadratic functions, and make connections between the algebraic and graphical representations of these rational functions |
| 十六 | Unit 4: Polynomial and Rational Functions - B Lesson 9: Rational functions                                       | Students will determine, through investigation with and without technology, key features (i.e., vertical and horizontal asymptotes, domain and range, intercepts, posi-                                                                                                                                                                                                                                                              |

|       |                             |                                                                                             |                                                                                                                                                           |
|-------|-----------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                             |                                                                                             | ve/negative intervals, increasing/decreasing intervals) of the graphs of rational functions that have linear expressions in the numerator and denominator |
|       | 十七                          | Unit 4: Polynomial and Rational Functions - B Lesson 10: Applications of rational functions | Students will make connections between the algebraic and graphical representations of these rational functions                                            |
|       | 十八                          | Unit 4: Polynomial and Rational Functions - B Lesson 10: Applications of rational functions | Students will sketch the graph of a simple rational function using its key features, given the algebraic representation of the function                   |
|       | 十九                          |                                                                                             |                                                                                                                                                           |
|       | 二十                          |                                                                                             |                                                                                                                                                           |
|       | 二十一                         |                                                                                             |                                                                                                                                                           |
|       | 二十二                         |                                                                                             |                                                                                                                                                           |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |                                                                                             |                                                                                                                                                           |
| 備註：   | 全英語授課                       |                                                                                             |                                                                                                                                                           |

|             |                                                                                                                                 |             |                           |
|-------------|---------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------|
| 課程名稱：       | 中文名稱：微積分(上)                                                                                                                     |             |                           |
|             | 英文名稱：Calculus                                                                                                                   |             |                           |
| 授課年段：       | 三上                                                                                                                              |             | 學分總數：2                    |
| 課程屬性：       | 專題探究                                                                                                                            |             |                           |
| 議題融入：       | 科技、資訊、閱讀素養、國際教育                                                                                                                 |             |                           |
| 師資來源：       | 校內單科                                                                                                                            |             |                           |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                                             |             |                           |
|             | B溝通互動：B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                               |             |                           |
|             | C社會參與：C2.人際關係與團隊合作,                                                                                                             |             |                           |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |             |                           |
| 學習目標：       | 能學會微積分的基本知識,以銜接未來大學所需基本能力。1.數列極限2.無窮等比級數3.複數平面4.二次曲線5.函數的極限6.微分7.導函數8.黎曼和9.積分及其應用                                               |             |                           |
| 教學大綱：       | 週次/<br>序                                                                                                                        | 單元/主題       | 內容綱要                      |
|             | 一                                                                                                                               | 函數的極限與連續性   | 數列及極限-收斂數列                |
|             | 二                                                                                                                               | 微函數的極限與連續性  | 無窮等比級數                    |
|             | 三                                                                                                                               | 函數的極限與連續性   | 使用Geogebra進行無窮數列的計算       |
|             | 四                                                                                                                               | 函數的極限與連續性   | 函數的概念、極限                  |
|             | 五                                                                                                                               | 函數的極限與連續性   | 極限的基本運算                   |
|             | 六                                                                                                                               | 函數的極限與連續性   | 連續函數                      |
|             | 七                                                                                                                               | 觀念總整理(一)    | 極限，連續應用問題                 |
|             | 八                                                                                                                               | 導數與函數的圖形及應用 | 函數的導數                     |
|             | 九                                                                                                                               | 導數與函數的圖形及應用 | 函數的微分及其意義                 |
|             | 十                                                                                                                               | 導數與函數的圖形及應用 | 函數性質—單調、凹向性               |
|             | 十一                                                                                                                              | 導數與函數的圖形及應用 | 多項式函數圖形的極值<br>多項式函數圖形的反曲點 |
|             | 十二                                                                                                                              | 導數與函數的圖形及應用 | 多項式函數的極值應用問題              |
|             | 十三                                                                                                                              | 導數與函數的圖形及應用 | 基礎函數的導函數及極值應用問題           |
|             | 十四                                                                                                                              | 觀念總整理(二)    | 導數，圖形應用問題                 |
|             | 十五                                                                                                                              | 函數的積分及其應用   | 定積分的意義                    |
|             | 十六                                                                                                                              | 函數的積分及其應用   | 定積分與不定積分                  |
|             | 十七                                                                                                                              | 函數的積分及其應用   | 積分的應用—面積                  |
|             | 十八                                                                                                                              | 函數的積分及其應用   | 積分的應用—體積及變化量              |
|             | 十九                                                                                                                              |             |                           |
|             | 二十                                                                                                                              |             |                           |
|             | 二十一                                                                                                                             |             |                           |
| 二十二         |                                                                                                                                 |             |                           |
| 學習評量：       | 1.紙筆測驗40%<br>2.檔案評量(書面報告)20%<br>3.實作評量20%<br>4.口語評量(分組報告)20%                                                                    |             |                           |
| 備註：         |                                                                                                                                 |             |                           |



|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                          |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：新聞英語閱讀                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |
|         | 英文名稱：Selected Reading of English Newspaper                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                          |
| 授課年段：   | 三上、三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數：1                                                                                                   |
| 課程屬性：   | 通識性課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                          |
| 議題融入：   | 閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                          |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                          |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                          |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                          |
|         | C社會參與：C1.道德實踐與公民意識，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                          |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                          |
| 學習目標：   | The aims of this course are for the students to listen to, read, and respond to English-language news while learning about a variety of topical issues. The students will be able to understand short written, audio, or video news texts about current topics. They will also learn to explain the main points of a news story and discuss their opinions about it with reasons and examples. Students will develop a critical understanding of how news events, issues, and people are represented in different texts. |                                                                                                          |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 單元/主題                                                                                                    |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Introduction                                                                                             |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 1 Types of news                                                                                     |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 2 Approaching a news story                                                                          |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 3 Gist reading                                                                                      |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 4 Responding to a news story                                                                        |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 4 Responding to a news story                                                                        |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 5 Audiovisual news                                                                                  |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 6 Audiovisual news                                                                                  |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 7 Understanding current Events                                                                      |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 7 Understanding current Events                                                                      |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 7 Understanding current Events                                                                      |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 7 Understanding current Events                                                                      |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 7 Understanding current Events                                                                      |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Group Project                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 內容綱要                                                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Introduction to the course; expectations                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Identify different types of news<br>Vocabulary - inferring meaning from context                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Identify parts of a news story<br>Previewing - predicting content from headlines, headings, photos, etc. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Understanding the main points of a news story<br>Skimming and scanning<br>Summarizing and retelling      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Supporting opinions with references to the text<br>Identifying bias                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Understanding and evaluating points of view/opinions in a news story                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Listening for main ideas<br>Listening for details                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Comparing audiovisual and written news                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | International Relations and Politics                                                                     |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Science and Technology                                                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Culture and Society                                                                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Education (higher education)                                                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Entertainment and Leisure                                                                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Analysis of news stories                                                                                 |



|                                   |     |               |                                  |
|-----------------------------------|-----|---------------|----------------------------------|
|                                   | 十五  | Group Project | Analysis of news stories         |
|                                   | 十六  | Group Project | Group presentations and feedback |
|                                   | 十七  | Group Project | Group presentations and feedback |
|                                   | 十八  | Wrap-up       | Reflections & Discussions        |
|                                   | 十九  |               |                                  |
|                                   | 二十  |               |                                  |
|                                   | 二十一 |               |                                  |
|                                   | 二十二 |               |                                  |
| 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |     |               |                                  |
| 備註：                               |     |               |                                  |

【備查版】

【備查版】

|         |                                                                                                                                        |                                                                                                           |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：新聞理論與實務(上)                                                                                                                        |                                                                                                           |
|         | 英文名稱：Real Talk: How News is Made                                                                                                       |                                                                                                           |
| 授課年段：   | 三上                                                                                                                                     | 學分總數：2                                                                                                    |
| 課程屬性：   | 職涯試探                                                                                                                                   |                                                                                                           |
| 議題融入：   | 人權、多元文化、戶外教育                                                                                                                           |                                                                                                           |
| 師資來源：   | 外聘(其他)                                                                                                                                 |                                                                                                           |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進, A3.規劃執行與創新應變,                                                                                                      |                                                                                                           |
|         | B溝通互動：B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                      |                                                                                                           |
|         | C社會參與：C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                      |                                                                                                           |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                                                           |
| 學習目標：   | 1.認識新聞價值、掌握新聞重點。<br>2.了解媒體生態與政治民生關聯性。<br>3.判斷新聞及節目真假。<br>4.具備新聞寫稿配音及播報能力。<br>5.實地採訪並完成新聞作品。                                            |                                                                                                           |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題                                                                                                     |
|         | 一                                                                                                                                      | 新聞台運作概況、新聞主題發想                                                                                            |
|         | 二                                                                                                                                      | 新聞採訪需知                                                                                                    |
|         | 三                                                                                                                                      | 生活類新聞                                                                                                     |
|         | 四                                                                                                                                      | 電視新聞寫稿練習（生活類）                                                                                             |
|         | 五                                                                                                                                      | 社會類新聞                                                                                                     |
|         | 六                                                                                                                                      | 電視新聞寫稿練習（社會類）                                                                                             |
|         | 七                                                                                                                                      | 政治類新聞                                                                                                     |
|         |                                                                                                                                        | 內容綱要                                                                                                      |
|         |                                                                                                                                        | 電視台新聞部職務介紹、<br>文稿編輯系統、各組合作模式、<br>晨間新聞及氣象播報、午間新聞、晚間新聞<br>新聞採訪會議及變動<br>期末需完成人物或生活類2分鐘新聞，啟動前置作業，隨時溝通進度       |
|         |                                                                                                                                        | 文字記者與攝影記者訪前訪後之溝通合作<br>新聞價值探討：即時性 影響性 衝突性 異常性<br>趣味性 接近性 顯著性 實用性<br>怎麼找新聞：各類新聞來源<br>探討受訪者之重要性<br>提問的技巧與忌諱  |
|         |                                                                                                                                        | 食衣住行,生活新知,民生新制<br>不獨厚唯一廠商原則<br>播放影片並探討『生活類』新聞做法(天災新聞)<br>播放影片並探討『生活類』新聞做法(消費糾紛)<br>播放影片並探討『生活類』新聞做法(名人新聞) |
|         |                                                                                                                                        | 掌握黃金七秒：慎選開場畫面<br>圖像式思考：文字記者切勿天馬行空<br>口語化：少使用艱澀成語<br>穿插NS,增加現場感<br>運用訪問增加可信度                               |
|         |                                                                                                                                        | 真相未明前,避免未審先判<br>監視器畫面 網路影片為何成為新聞來源<br>影片探討『社會類』新聞做法(兇殺案)<br>影片探討『社會類』新聞做法(交通事故)<br>影片探討『社會類』新聞做法(火災)      |
|         |                                                                                                                                        | 掌握黃金七秒：慎選開場畫面<br>圖像式思考：文字記者切勿天馬行空<br>口語化：少使用艱澀成語<br>穿插NS,增加現場感<br>運用訪問增加可信度                               |
|         |                                                                                                                                        | 採訪政治人物,記者易成傳聲筒?如何平衡?<br>民調新聞能否客觀?準確?<br>觀察各家民調題目設計及受訪對象.                                                  |

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|       |                   | 影片探討『政治類』新聞做法(選舉)<br>影片探討『政治類』新聞做法(民調)<br>影片探討『政治類』新聞做法(朝野對立)                                                                    |
| 八     | 過音練習              | 硬新聞：時效性強，較嚴肅類新聞<br>咬字清晰加強重點，態度肯定不急促<br>軟新聞：無時效性，人物故事類新聞<br>聲音表情可稍生動活潑，帶點悲喜<br>2分鐘新聞需過音完成                                         |
| 九     | 採訪剪接週             | 初階剪接概念, 軟體運用                                                                                                                     |
| 十     | 採訪剪接週             | 2分鐘新聞剪接（訪問、stand+現場音約佔1分）                                                                                                        |
| 十一    | 主播播報訓練及SNG連線訓練(一) | 主播稿(稿頭)怎麼寫<br>運用新聞稿撰寫主播稿<br>主播儀容及肢體語言運用<br>播報咬字練習                                                                                |
| 十二    | 主播播報訓練及SNG連線訓練(二) | 如何用聲調及語速加強重點<br>時間壓力下(到數進廣告)縮稿訓練<br>突然地震的主播應變<br>記者連線要點<br>記者與外場導播之溝通                                                            |
| 十三    | 主播播報訓練及SNG連線訓練(三) | 記者走動式連線(引領觀眾身歷其境效果)<br>何時適合走動式連線<br>Delay或斷訊之處理<br>公開的秘密, 新聞台常使用『假連線』<br>1. 記者必須移動時<br>2. 場景沒變, 尚無新資訊時 例: 颱風天依舊沒風雨<br>3. sot完成之前 |
| 十四    | 新聞標題與新聞rundown    | 新聞標題誰決定<br>何謂好的新聞標題、天標的運用<br>練習下標題(完成2分新聞標題)<br>新聞編排邏輯、重大新聞排序<br>收視率與新聞編排關聯、各新聞台的編排喜好<br>業配新聞編排、廣告破口                             |
| 十五    | 副控室設備操作           | 導播機switcher及音控台soundboard學習                                                                                                      |
| 十六    | 主播台播報，著正式服裝       | 備好各組2分新聞、主播稿、標題，<br>主播台播報實錄                                                                                                      |
| 十七    | 線上記者講座            | 資深記者作品及心得分享<br>開放各組提問                                                                                                            |
| 十八    | 線上記者講座心得報告        | 各組分享收穫<br>口頭+書面報告                                                                                                                |
| 十九    |                   |                                                                                                                                  |
| 二十    |                   |                                                                                                                                  |
| 二十一   |                   |                                                                                                                                  |
| 二十二   |                   |                                                                                                                                  |
| 學習評量： |                   | 2分鐘新聞影片40%，上課參與度30%，副控室操作及播報20% 資深記者講座心得報告10%。                                                                                   |
| 備註：   |                   |                                                                                                                                  |

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| 課程名稱：   | 中文名稱： 經典電影賞析與創作(上)                                                                                                                     |                 |                                  |
|         | 英文名稱： Film Appreciation and Production                                                                                                 |                 |                                  |
| 授課年段：   | 三上                                                                                                                                     | 學分總數： 2         |                                  |
| 課程屬性：   | 跨領域/科目專題                                                                                                                               |                 |                                  |
| 議題融入：   | 人權、品德、家庭教育、國際教育                                                                                                                        |                 |                                  |
| 師資來源：   | 外聘(其他)                                                                                                                                 |                 |                                  |
| 課綱核心素養： | A自主行動： A3. 規劃執行與創新應變,                                                                                                                  |                 |                                  |
|         | B溝通互動： B1. 符號運用與溝通表達, B2. 科技資訊與媒體素養, B3. 藝術涵養與美感素養,                                                                                    |                 |                                  |
|         | C社會參與： C2. 人際關係與團隊合作, C3. 多元文化與國際理解,                                                                                                   |                 |                                  |
| 學生圖像：   | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3. 個性完善：愛心熱誠、誠信正直、自律自省。， 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                 |                                  |
| 學習目標：   | 1. 認識不同類型電影的風格。 2. 賞析比較不同類型電影，以及相同文學作品改編為不同型態的電影。 3. 小組合作規劃電影的製作與拍攝。 4. 舉辦靜心電影展。                                                       |                 |                                  |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題           | 內容綱要                             |
|         | 一                                                                                                                                      | 電影評析寫作          | 1. 學習評論電影<br>2. 文章寫作 - 格式和範例     |
|         | 二                                                                                                                                      | 認識電影藝術          | 1. 認識電影元素及電影是甚麼<br>2. 分析電影藝術呈現手法 |
|         | 三                                                                                                                                      | 電影形式            | 早期電影形式介紹                         |
|         | 四                                                                                                                                      | 電影形式            | 現代電影形式分析                         |
|         | 五                                                                                                                                      | 戴上電影編劇的帽子       | 認識並歸納拍攝電影常見慣例及手法                 |
|         | 六                                                                                                                                      | 戴上電影編劇的帽子       | 打破拍攝電影常用慣例，創新表達電影呈現手法            |
|         | 七                                                                                                                                      | 認識早期默片          | 早期電影運動特色介紹                       |
|         | 八                                                                                                                                      | 早期默片分享討論        | 學生報告分享與帶領討論早期電影特色                |
|         | 九                                                                                                                                      | 認識晚期默片          | 晚期電影運動特色介紹                       |
|         | 十                                                                                                                                      | 晚期默片分享討論        | 學生報告分享與帶領討論晚期電影特色                |
|         | 十一                                                                                                                                     | 認識喜劇默片          | 喜劇默片特色介紹                         |
|         | 十二                                                                                                                                     | 喜劇默片分享討論        | 學生報告分享與帶領討論喜劇默片特色                |
|         | 十三                                                                                                                                     | 認識卓別林           | 電影運動特色 - 以卓別林為例                  |
|         | 十四                                                                                                                                     | 卓別林影片分享討論       | 學生報告分享與帶領討論卓別林電影特色               |
|         | 十五                                                                                                                                     | 認識希區考克          | 電影運動特色 - 以希區考克為例                 |
|         | 十六                                                                                                                                     | 希區考克分享討論        | 學生報告分享與帶領討論希區考克電影特色              |
|         | 十七                                                                                                                                     | 新現實主義、法國新浪潮     | 電影運動特色 - 新現實主義及法國新浪潮為例           |
|         | 十八                                                                                                                                     | 新現實主義、法國新浪潮分享討論 | 學生報告分享與帶領討論新現實主義及法國新浪潮電影特色       |
|         | 十九                                                                                                                                     |                 |                                  |
|         | 二十                                                                                                                                     |                 |                                  |
|         | 二十一                                                                                                                                    |                 |                                  |
| 二十二     |                                                                                                                                        |                 |                                  |
| 學習評量：   | 課堂互動10%、課堂實作10%、小組合作20%、專題規劃20%、電影作品20%、靜心影展20%                                                                                        |                 |                                  |
| 備註：     |                                                                                                                                        |                 |                                  |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                     |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：經濟學(上)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                     |
|         | 英文名稱：Economics I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                     |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 學分總數：3                                                                                                                                                                              |
| 課程屬性：   | 通識性課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                     |
| 議題融入：   | 國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                     |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                     |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                     |
|         | B溝通互動：B1.符號運用與溝通表達，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                     |
|         | C社會參與：C1.道德實踐與公民意識，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                     |
| 學習目標：   | Economics is the study of how individuals, groups, and countries deal with the problem of limited resources and unlimited wants and needs. This course helps students gain a deeper understanding of important concepts such as tradeoffs, opportunity cost, supply and demand, saving and investing, production and consumption, fiscal and monetary policy, inflation and unemployment, and trade policy. Upon successful completion of the course students should be better able to assess the economic policy decisions that affect them, their community and their country. |                                                                                                                                                                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題                                                                                                                                                                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Getting Acquainted                                                                                                                                                                  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Scarcity, Choice and Decisions                                                                                                                                                      |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Scarcity, Choice and Decisions                                                                                                                                                      |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Factors of Production                                                                                                                                                               |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Factors of Production                                                                                                                                                               |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Economic Systems                                                                                                                                                                    |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Economic Systems                                                                                                                                                                    |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Microeconomics - Markets and Competition                                                                                                                                            |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Microeconomics - Markets and Competition                                                                                                                                            |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Microeconomics - Markets and Competition                                                                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 內容綱要                                                                                                                                                                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Syllabus and expectations<br>Objectives<br>Course Essential Questions                                                                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | What is economics all about?                                                                                                                                                        |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Understand that individuals and societies are forced to make choices because most resources are scarce.<br>Define scarcity and economic resources.                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | In order to produce goods and services, we must have four things.<br>If even one piece is missing, production cannot take place. Define the PPC and related terms.                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Explain how the PPC illustrates opportunity costs, tradeoffs, inefficiency, efficiency, and economic growth or contraction under various conditions.<br>Calculate opportunity cost. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Societies have organization.<br>We will discuss characteristics of economic systems, why some are successful and some are not.                                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Supply, Demand, and Government Policies<br>Monetary Systems                                                                                                                         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Markets are a key component of capitalism.                                                                                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Gain an understanding of the three business types and four competitive market types.                                                                                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Gain an understanding of the three business types and four competitive market types.                                                                                                |

|       |                                    |                                          |                                                                                                                                                                                                                                                 |
|-------|------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | 十一                                 | Microeconomics - Markets and Competition | The Market Forces of Supply and Demand Elasticity                                                                                                                                                                                               |
|       | 十二                                 | Supply and Demand                        | "Teach a person to say Supply and Demand and you have an economist."<br>Define the law of demand and the law of supply.<br>Explain the relationship between the price of a good or service and the quantity demanded (supplied).                |
|       | 十三                                 | Supply and Demand                        | Explain the determinants of demand and the determinants of supply.<br>Define market equilibrium.<br>Define a surplus and shortage.                                                                                                              |
|       | 十四                                 | Prices                                   | How are prices formed?<br>What do they do in a free market?                                                                                                                                                                                     |
|       | 十五                                 | Prices                                   | Define the consumer price index (CPI), inflation, deflation, disinflation, the inflation rate, and real variables.<br>Explain how price indices can be used to calculate the inflation rate and to compare nominal variables over time periods. |
|       | 十六                                 | Marginalism and Consumer Behavior        | Why do Snickers come in a package of 10?<br>What would happen if there were one more?                                                                                                                                                           |
|       | 十七                                 | Marginalism and Consumer Behavior        | Profit and Profit Maximization<br>The Production Function and Firm Costs<br>The Perfectly Competitive Market and Firm                                                                                                                           |
|       | 十八                                 | Review                                   | Semester Review                                                                                                                                                                                                                                 |
|       | 十九                                 |                                          |                                                                                                                                                                                                                                                 |
|       | 二十                                 |                                          |                                                                                                                                                                                                                                                 |
|       | 二十一                                |                                          |                                                                                                                                                                                                                                                 |
|       | 二十二                                |                                          |                                                                                                                                                                                                                                                 |
| 學習評量： | 40% 課堂參與討論<br>30% 回家作業<br>30% 專題報告 |                                          |                                                                                                                                                                                                                                                 |
| 備註：   | 全英語授課                              |                                          |                                                                                                                                                                                                                                                 |



|         |                                                                                                                                                                                                                                       |         |                                         |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------|
| 課程名稱：   | 中文名稱： 經濟學Honors                                                                                                                                                                                                                       |         |                                         |
|         | 英文名稱： Economics (Honors)                                                                                                                                                                                                              |         |                                         |
| 授課年段：   | 三上                                                                                                                                                                                                                                    |         | 學分總數： 3                                 |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                  |         |                                         |
| 議題融入：   | 資訊                                                                                                                                                                                                                                    |         |                                         |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                |         |                                         |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                                  |         |                                         |
|         | B溝通互動： B2.科技資訊與媒體素養,                                                                                                                                                                                                                  |         |                                         |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                                                                                  |         |                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                    |         |                                         |
| 學習目標：   | 1. To introduce the methods and applications of economic analysis.<br>2. To introduce important issues in microeconomics and macroeconomics.<br>3. To help the students develop skills of critical thinking using economic reasoning. |         |                                         |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                  | 單元/主題   | 內容綱要                                    |
|         | 一                                                                                                                                                                                                                                     | Unit 0  | Introduction & Expectations             |
|         | 二                                                                                                                                                                                                                                     | Unit 1  | Demand, Supply and Equilibrium          |
|         | 三                                                                                                                                                                                                                                     | Unit 2  | Elasticity of Demand and Supply         |
|         | 四                                                                                                                                                                                                                                     | Unit 3  | Consumer Choice                         |
|         | 五                                                                                                                                                                                                                                     | Unit 4  | Theory of Production and Cost Analysis  |
|         | 六                                                                                                                                                                                                                                     | Unit 5  | Perfectly Competitive Markets           |
|         | 七                                                                                                                                                                                                                                     | Unit 6  | Perfectly Competitive Markets, Monopoly |
|         | 八                                                                                                                                                                                                                                     | Unit 7  | Oligopoly and Monopolistic Competition  |
|         | 九                                                                                                                                                                                                                                     | Unit 8  | Introduction to Macroeconomics          |
|         | 十                                                                                                                                                                                                                                     | Unit 9  | Unemployment and Inflation              |
|         | 十一                                                                                                                                                                                                                                    | Unit 10 | Business Cycles and Economic Growth     |
|         | 十二                                                                                                                                                                                                                                    | Unit 11 | The Supply of and the Demand for Money  |
|         | 十三                                                                                                                                                                                                                                    | Unit 12 | Aggregate Supply and Aggregate Demand   |
|         | 十四                                                                                                                                                                                                                                    | Unit 13 | Macroeconomic Policy                    |
|         | 十五                                                                                                                                                                                                                                    | Unit 14 | International Trade                     |
|         | 十六                                                                                                                                                                                                                                    | Unit 15 | International Finance                   |
|         | 十七                                                                                                                                                                                                                                    | Project | Final Project Presentations & Feedback  |
|         | 十八                                                                                                                                                                                                                                    | Wrap-Up | Reflections and Final Thoughts          |
|         | 十九                                                                                                                                                                                                                                    |         |                                         |
|         | 二十                                                                                                                                                                                                                                    |         |                                         |
|         | 二十一                                                                                                                                                                                                                                   |         |                                         |
| 二十二     |                                                                                                                                                                                                                                       |         |                                         |
| 學習評量：   | 40% 課堂參與討論、30% 回家作業、30% 專題報告                                                                                                                                                                                                          |         |                                         |
| 備註：     | 全英語授課                                                                                                                                                                                                                                 |         |                                         |



|             |                                                                                                          |           |
|-------------|----------------------------------------------------------------------------------------------------------|-----------|
| 課程名稱：       | 中文名稱：電子學原理與實驗(上)                                                                                         |           |
|             | 英文名稱：Electronics Principles and Laboratory                                                               |           |
| 授課年段：       | 三上                                                                                                       | 學分總數：2    |
| 課程屬性：       | 實作(實驗)及探索體驗                                                                                              |           |
| 議題融入：       | 科技、資訊                                                                                                    |           |
| 師資來源：       | 外聘(其他)                                                                                                   |           |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                         |           |
|             | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                         |           |
|             | C社會參與：C2.人際關係與團隊合作，                                                                                      |           |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |           |
| 學習目標：       | 1.認識基本類比電路元件<br>2.了解電路元件運作原理<br>3.了解訊號的增減與傳遞方式<br>4.學會麵包板的使用，並將電路圖轉化成麵包板上的電路                             |           |
| 教學大綱：       | 週次/<br>序                                                                                                 | 單元/主題     |
|             | 一                                                                                                        | 基本電路定律    |
|             | 二                                                                                                        | 基本電路實驗    |
|             | 三                                                                                                        | 電路轉換與電源轉換 |
|             | 四                                                                                                        | 訊號        |
|             | 五                                                                                                        | RC電路(一)   |
|             | 六                                                                                                        | RC電路(二)   |
|             | 七                                                                                                        | RL電路      |
|             | 八                                                                                                        | RLC電路     |
|             | 九                                                                                                        | 半導體       |
|             | 十                                                                                                        | 二極體(一)    |
|             | 十一                                                                                                       | 二極體(二)    |
|             | 十二                                                                                                       | 整流電路      |
|             | 十三                                                                                                       | 濾波電路(一)   |
|             | 十四                                                                                                       | 濾波電路(二)   |
|             | 十五                                                                                                       | 電蚊拍電路(一)  |
|             | 十六                                                                                                       | 電蚊拍電路(二)  |
|             | 十七                                                                                                       | 電蚊拍電路(三)  |
|             | 十八                                                                                                       | 期末發表      |
|             | 十九                                                                                                       |           |
|             | 二十                                                                                                       |           |

內容綱要

歐姆定律  
克西荷夫定律  
惠斯同電橋

電阻串並聯實驗  
熟習電源供應器及三用電表的使用

諾頓等效電路、戴維寧等效電路  
米勒定律

基本訊號波型的認識  
基本訊號波型的數學

電容充放電實驗

RC電路震盪實驗

RL電路實驗(交流電)

RLC帶通濾波器(交流電)

本質半導體  
能帶理論  
外質半導體與傳導載體

PN接面的物理性質  
順向偏壓區特性  
逆向偏壓區特性

稽納二極體  
二極體的等效模型

二極體整流電路實驗

電容濾波器

LC濾波器

電蚊拍拆解

壘增倍壓電路實作一

壘增倍壓電路實作二

電蚊拍電路實作分享

|       |                                           |  |  |
|-------|-------------------------------------------|--|--|
|       | 二十一                                       |  |  |
|       | 二十二                                       |  |  |
| 學習評量： | 1. 課堂實驗學習單50%<br>2. 隨堂測驗20%<br>3. 期末報告30% |  |  |
| 備註：   |                                           |  |  |

【備查版】

【備查版】

|         |                                                                                                                                                                                                                                                                                |                                             |                                                                                                    |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 電影與文學中的生命科學                                                                                                                                                                                                                                                              |                                             |                                                                                                    |
|         | 英文名稱： Life Sciences in Film and Literature                                                                                                                                                                                                                                     |                                             |                                                                                                    |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                             | 學分總數： 2                                     |                                                                                                    |
| 課程屬性：   | 通識性課程                                                                                                                                                                                                                                                                          |                                             |                                                                                                    |
| 議題融入：   | 性別平等、人權、環境、海洋、生命、科技、能源、家庭教育、國際教育                                                                                                                                                                                                                                               |                                             |                                                                                                    |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                           |                                             |                                                                                                    |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進， A2.系統思考與問題解決，                                                                                                                                                                                                                                             |                                             |                                                                                                    |
|         | B溝通互動： B1.符號運用與溝通表達， B2.科技資訊與媒體素養，                                                                                                                                                                                                                                             |                                             |                                                                                                    |
|         | C社會參與： C1.道德實踐與公民意識， C2.人際關係與團隊合作， C3.多元文化與國際理解，                                                                                                                                                                                                                               |                                             |                                                                                                    |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                     |                                             |                                                                                                    |
| 學習目標：   | 1. 增進學科知識：探討生命科學中的核心概念，如細胞結構與功能、遺傳機制、生殖系統與演化等，並透過文學與電影情節加深理解。<br>2. 跨學科思維：發展批判性思考能力，從科學與人文的視角解析生物學議題如何影響社會、倫理與文化。<br>3. 提升科學素養：培養學生閱讀科學內容與理解生命科學現象的能力，增強對科學研究與日常生活的聯繫。<br>4. 建立情感連結：透過角色情感與情節，促使學生反思生命的價值、生死議題，以及科學對人類生活的意義。<br>5. 溝通與表達：訓練學生以多元形式表達對科學與人文議題的見解，增進團體討論與個人表達能力。 |                                             |                                                                                                    |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                           | 單元/主題                                       | 內容綱要                                                                                               |
|         | 一                                                                                                                                                                                                                                                                              | 愛的代價（Love Costs Everything）                 | 1. 遺傳疾病的篩檢與治療<br>2. 藥物研發的過程<br>3. 認識龐貝氏症                                                           |
|         | 二                                                                                                                                                                                                                                                                              | 一公升的眼淚（1 Litre of Tears）                    | 1. 原著文學作品：1 Litre no Namida, Aya Kito, 1986<br>2. 認識神經退化性疾病脊髓小腦萎縮症<br>3. 探討生命的意義：生命尊嚴與慢性病生活質量      |
|         | 三                                                                                                                                                                                                                                                                              | 不存在的女兒（The Memory Keeper's Daughter）        | 1. 原著文學作品：The Memory Keeper's Daughter, Kim Edwards, 2005<br>2. 認識唐氏症<br>3. 絨毛膜取樣與羊膜穿刺術<br>4. 生命教育 |
|         | 四                                                                                                                                                                                                                                                                              | 議題討論與思                                      | 針對1~3週課程內容進行省思與討論                                                                                  |
|         | 五                                                                                                                                                                                                                                                                              | 第七日的奇蹟（ひまわりと子犬の7日間）                         | 1. 實驗動物倫理<br>2. 動物保護與生物倫理                                                                          |
|         | 六                                                                                                                                                                                                                                                                              | 好孕大作戰（What to Expect When You're Expecting） | 1. 受精與胚胎發育<br>2. 生殖倫理                                                                              |
|         | 七                                                                                                                                                                                                                                                                              | 我要活下去（6 Below: Miracle on the Mountain）     | 1. 生理的恆定機制<br>2. 求生意志與人生意義                                                                         |
|         | 八                                                                                                                                                                                                                                                                              | 議題討論與思辨                                     | 針對5~7週課程內容進行省思與討論                                                                                  |
|         | 九                                                                                                                                                                                                                                                                              | 全境擴散（Contagion）                             | 1. 病原體與公共衛生<br>2. 病毒感染<br>3. 疫苗研發                                                                  |
|         | 十                                                                                                                                                                                                                                                                              | 藥命俱樂部（Dallas Buyers Club）                   | 天性免疫缺乏症與HIV<br>2. 病患自主權<br>3. 性別平等                                                                 |
|         | 十一                                                                                                                                                                                                                                                                             | 第零號病人（Patient Zero）                         | 1. 病原體與公共衛生<br>2. 病毒感染                                                                             |

|       |                                                                                |                                                                                           |
|-------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
|       |                                                                                | 3. 疫苗研發                                                                                   |
| 十二    | 疫起 (Eye of the Storm)                                                          | 1. 認識嚴重急性呼吸系統綜合症 (SARS)<br>2. 病原體傳播<br>3. 公共衛生                                            |
| 十三    | 議題討論與思辨                                                                        | 針對9~12週課程內容進行省思與討論                                                                        |
| 十四    | 極地奇蹟 (The Big Miracle)                                                         | 1. 多樣的生態系<br>2. 全球暖化<br>3. 生物保育                                                           |
| 十五    | 諾亞方舟 (Noah)                                                                    | 1. 生物多樣性<br>2. 移地保育                                                                       |
| 十六    | 滅絕 (Annihilation)                                                              | 1. 原著文學作品：遺落的南境三部曲，Jeff VanderMeer<br>2. 細胞分裂與演化<br>3. 遺傳變異與演化<br>4. 認識同源異型基因 (Hox genes) |
| 十七    | 古文中的生物學                                                                        | 1. 以族群遺傳角度討論陶淵明《桃花源記》<br>2. 化石的故事：韓愈《祭鱷魚文》中的鱷魚是哪種鱷魚？<br>3. 寄生性愛情？「絲羅非獨生，願託喬木」浪漫嗎？         |
| 十八    | 議題討論與思辨                                                                        | 針對14~17週課程內容進行省思與討論                                                                       |
| 十九    |                                                                                |                                                                                           |
| 二十    |                                                                                |                                                                                           |
| 二十一   |                                                                                |                                                                                           |
| 二十二   |                                                                                |                                                                                           |
| 學習評量： | 1. 課堂參與 (40%)：每堂課程皆有學習單與省思。<br>2. 期末報告 (60%)：閱讀一本原著文學作品撰寫導讀文或是針對課程討論議題進行一主題報告。 |                                                                                           |
| 備註：   |                                                                                |                                                                                           |

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|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 德語5                                                                                                                                  |                                                                                     |
|             | 英文名稱： German5                                                                                                                              |                                                                                     |
| 授課年段：       | 三上                                                                                                                                         | 學分總數： 2                                                                             |
| 課程屬性：       | 第二外國語文                                                                                                                                     |                                                                                     |
| 議題融入：       | 多元文化、國際教育                                                                                                                                  |                                                                                     |
| 師資來源：       | 外聘(其他)                                                                                                                                     |                                                                                     |
| 課綱核心素<br>養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                      |                                                                                     |
|             | B溝通互動： B1. 符號運用與溝通表達, B3. 藝術涵養與美感素養,                                                                                                       |                                                                                     |
|             | C社會參與： C3. 多元文化與國際理解,                                                                                                                      |                                                                                     |
| 學生圖像：       | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                                     |
| 學習目標：       | 1. 複習德文發音規則。<br>2. 高階句型及語法概念介紹。<br>3. 複習日常生活表達，包含問候、自我介紹、數字、日常習慣等。<br>4. 德語國家文化認識。<br>5. 透過小組討論加強單字及句型的應用。                                 |                                                                                     |
| 教學大綱：       | 週次/<br>序                                                                                                                                   | 單元/主題                                                                               |
|             | 一                                                                                                                                          | Revision A2.1 lessons 19-20                                                         |
|             | 二                                                                                                                                          | Lesson 21: festivals and street festivals                                           |
|             | 三                                                                                                                                          | Lesson 21: festivals and street festivals                                           |
|             | 四                                                                                                                                          | Group presentations                                                                 |
|             | 五                                                                                                                                          | Lesson 22: Sports and nationalities in Germany (multi-culturalism)                  |
|             | 六                                                                                                                                          | Lesson 22: Sports and nationalities in Germany (multi-culturalism)                  |
|             | 七                                                                                                                                          | Revision of lessons 19-22                                                           |
|             | 八                                                                                                                                          | Comprehensive Listening, Reading, Writing/Grammar and Speaking Exercises            |
|             | 九                                                                                                                                          | Lesson 23: giving directions, city life                                             |
|             | 十                                                                                                                                          | Lesson 23: giving directions, city life                                             |
|             | 十一                                                                                                                                         | Lesson 23: giving directions, city life                                             |
|             | 十二                                                                                                                                         | Lesson 24:                                                                          |
|             | 十三                                                                                                                                         | Lesson 24:                                                                          |
|             | 十四                                                                                                                                         | Revision of lessons 21-24                                                           |
|             |                                                                                                                                            | Activities: Learning about Christmas traditions in Germany - German Christmas songs |

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|       | 十五  | Revision of lessons 21-24                                                | Activities: Learning about Christmas traditions in Germany - baking Christmas cookies |
|       | 十六  | Revision of lessons 21-24                                                | Review vocabulary and grammar                                                         |
|       | 十七  | Comprehensive Listening, Reading, Writing/Grammar and Speaking Exercises | Strengthening skills of lessons 21-24                                                 |
|       | 十八  | Feedback round                                                           | Discussing difficulties in the comprehensive exercises, semester wrap-up              |
|       | 十九  |                                                                          |                                                                                       |
|       | 二十  |                                                                          |                                                                                       |
|       | 二十一 |                                                                          |                                                                                       |
|       | 二十二 |                                                                          |                                                                                       |
| 學習評量： |     | 課堂互動25%、課堂實作25%、小組合作25%、作品產出25%                                          |                                                                                       |
| 備註：   |     |                                                                          |                                                                                       |

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| 課程名稱：   | 中文名稱：線性代數(上)                                                                                                                                       |              |
|         | 英文名稱：Linear Algebra                                                                                                                                |              |
| 授課年段：   | 三上                                                                                                                                                 | 學分總數：2       |
| 課程屬性：   | 專題探究                                                                                                                                               |              |
| 議題融入：   | 科技、資訊、多元文化、閱讀素養、國際教育                                                                                                                               |              |
| 師資來源：   | 校內單科                                                                                                                                               |              |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                |              |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                   |              |
|         | C社會參與：C2.人際關係與團隊合作，                                                                                                                                |              |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                    |              |
| 學習目標：   | <p>能學會線性代數的基本知識，以銜接未來大學所需基本能力。</p> <p>課程主題：</p> <p>1. n元一次方程組及其應用</p> <p>2. 經濟模型：矩陣、馬可夫鍊、投入-產出模型</p> <p>3. 線性遞迴問題—對角化、Cayley-Hamilton定理、生物繁衍應用</p> |              |
| 教學大綱：   | 週次/序                                                                                                                                               | 單元/主題        |
|         | 一                                                                                                                                                  | 矩陣的計算及應用(I)  |
|         | 二                                                                                                                                                  | 矩陣的計算及應用(I)  |
|         | 三                                                                                                                                                  | 矩陣的計算及應用(I)  |
|         | 四                                                                                                                                                  | 矩陣的計算及應用(I)  |
|         | 五                                                                                                                                                  | 矩陣的計算及應用(I)  |
|         | 六                                                                                                                                                  | 矩陣的計算及應用(I)  |
|         | 七                                                                                                                                                  | 概念統整(一)      |
|         | 八                                                                                                                                                  | 矩陣的計算及應用(II) |
|         | 九                                                                                                                                                  | 矩陣的計算及應用(II) |
|         | 十                                                                                                                                                  | 矩陣的計算及應用(II) |
|         | 十一                                                                                                                                                 | 矩陣的計算及應用(II) |
|         | 十二                                                                                                                                                 | 矩陣的計算及應用(II) |
|         | 十三                                                                                                                                                 | 矩陣的計算及應用(II) |
|         | 十四                                                                                                                                                 | 概念統整(二)      |
|         | 十五                                                                                                                                                 | 矩陣對角化問題      |
|         | 十六                                                                                                                                                 | 矩陣對角化問題      |
|         | 十七                                                                                                                                                 | 矩陣對角化問題      |
|         | 十八                                                                                                                                                 | 矩陣對角化問題      |
|         | 十九                                                                                                                                                 |              |
|         | 二十                                                                                                                                                 |              |
|         | 二十一                                                                                                                                                |              |
|         | 二十二                                                                                                                                                |              |
| 學習評量：   | <p>1. 紙筆測驗 40%</p> <p>2. 檔案評量(書面報告) 20%</p> <p>3. 實作評量 20%</p> <p>4. 口語評量(分組報告) 20%</p>                                                            |              |
| 備註：     |                                                                                                                                                    |              |



|             |                                                                                                                                                                                                                                                         |         |
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| 課程名稱：       | 中文名稱：學術研究與寫作專題(上)                                                                                                                                                                                                                                       |         |
|             | 英文名稱：Academic Writing I                                                                                                                                                                                                                                 |         |
| 授課年段：       | 三上                                                                                                                                                                                                                                                      | 學分總數：3  |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                  |         |
| 議題融入：       | 閱讀素養                                                                                                                                                                                                                                                    |         |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                  |         |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                        |         |
|             | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                        |         |
|             | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                                                     |         |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                         |         |
| 學習目標：       | Lessons will lead students through the writing process from brainstorming to prewriting to drafting and then publishing. Students will learn language and syntax techniques to write effectively to achieve a specific purpose for a specific audience. |         |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                | 單元/主題   |
|             | 一                                                                                                                                                                                                                                                       | Unit 1  |
|             | 二                                                                                                                                                                                                                                                       | Unit 1  |
|             | 三                                                                                                                                                                                                                                                       | Unit 1  |
|             | 四                                                                                                                                                                                                                                                       | Unit 1  |
|             | 五                                                                                                                                                                                                                                                       | Unit 1  |
|             | 六                                                                                                                                                                                                                                                       | Unit 2  |
|             | 七                                                                                                                                                                                                                                                       | Unit 2  |
|             | 八                                                                                                                                                                                                                                                       | Unit 2  |
|             | 九                                                                                                                                                                                                                                                       | Unit 2  |
|             | 十                                                                                                                                                                                                                                                       | Unit 2  |
|             | 十一                                                                                                                                                                                                                                                      | Unit 2  |
|             | 十二                                                                                                                                                                                                                                                      | Unit 3  |
|             | 十三                                                                                                                                                                                                                                                      | Unit 3  |
|             | 十四                                                                                                                                                                                                                                                      | Unit 3  |
|             | 十五                                                                                                                                                                                                                                                      | Unit 3  |
|             | 十六                                                                                                                                                                                                                                                      | Unit 3  |
|             | 十七                                                                                                                                                                                                                                                      | Unit 3  |
|             | 十八                                                                                                                                                                                                                                                      | Wrap up |
|             | 十九                                                                                                                                                                                                                                                      |         |
|             | 二十                                                                                                                                                                                                                                                      |         |
|             | 二十一                                                                                                                                                                                                                                                     |         |
|             | 二十二                                                                                                                                                                                                                                                     |         |

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| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |
| 備註：   | 全英語授課                        |

【備查版】

【備查版】

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| 課程名稱：   | 中文名稱：藝術史                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                     |
|         | 英文名稱：Art History                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                     |
| 授課年段：   | 三上                                                                                                                                                                                                                                                                                                                                                                                                                                          | 學分總數：2                                                                                                                              |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                     |
| 議題融入：   | 多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                     |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                     |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                     |
|         | B溝通互動：B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                     |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                      |                                                                                                                                     |
| 學習目標：   | This Art History course begins in the Renaissance in Western Europe, because 1500 was an important moment for Western culture, and finishes off the second half of the millennium. Students will visit virtual museums all over the world, and look at the connections among various types of art that have been created for the past 500 years. This course aims to expand the student's understanding and love of history and visual art. |                                                                                                                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                        | 單元/主題                                                                                                                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                           | Overview<br>The End of Chivalry<br>Medieval Art Before 1500<br>Field Trip: The Cloisters                                            |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 1<br>The Birth of the Artist<br>Early Renaissance Art 1400-1460<br>Renaissance Architecture in Your Community                  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 2<br>Humanism<br>Renaissance Art in Europe 1450-1600<br>Renaissance Study Questions                                            |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 2<br>Renaissance Discussion Thread<br>Qualities of Renaissance Architecture                                                    |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3<br>Reaction to Perfection<br>Renaissance Art in Europe and Spain, Mannerism 1450-1600                                        |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 4<br>The Reformation<br>Reformation and Baroque 1600-1775<br>Test on Renaissance and Reformation                               |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 5<br>If it ain't Baroque<br>Baroque 1600-1775<br>Non-Western Collaborative Project                                             |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 6<br>Romance and Adventure on the Frontier<br>Neoclassicism, Romanticism, and Realism 1725-1875<br>Present Non-Western Project |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 7<br>Realism and the advent of the camera<br>Neoclassicism, Romanticism, and Realism 1725-1875                                 |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 8<br>Realism's last gasp<br>Impressionism and Cezanne 1880-1900                                                                |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 8<br>Impressionism Study Questions<br>Field Trip to Actual Art                                                                 |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit 9<br>Evolutions and Revolutions<br>Post-Impressionism, Symbolism, Art Nouveau                                                  |

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|                                   |     |         | 1850-1905<br>Independent Research                                                                                                    |
|                                   | 十三  | Unit 10 | Fractured Spaces and Dada<br>Fauvism, German Expressionism, Cubism, Futurism, Dada 1900-1940<br>Independent Research                 |
|                                   | 十四  | Unit 11 | Dreams and Abstraction<br>Surrealism, Constructivism, De Stijl, International, Art                                                   |
|                                   | 十五  | Unit 11 | Deco 1900-1940<br>Independent Research                                                                                               |
|                                   | 十六  | Unit 12 | Modernism<br>Abstract Expressionism, Minimalism, Conceptualism, Pop Art, Superrealism, Environmentalism 1945-1990                    |
|                                   | 十七  | Unit 13 | Postmodernism and Recent Trends<br>Postmodernism, Deconstructivism, Feminist Art and the Whitney Biennial 1960-2000<br>Presentations |
|                                   | 十八  | Unit 14 | The Grand Finale<br>Final Exam 1400-2000                                                                                             |
|                                   | 十九  |         |                                                                                                                                      |
|                                   | 二十  |         |                                                                                                                                      |
|                                   | 二十一 |         |                                                                                                                                      |
|                                   | 二十二 |         |                                                                                                                                      |
| 學習評量：40% 課堂參與討論、30% 回家作業、30% 專題報告 |     |         |                                                                                                                                      |
| 備註：全英授課                           |     |         |                                                                                                                                      |

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| 課程名稱：   | 中文名稱：藝術鑑賞(上)                                                                                                                                                                                                                                     |               |
|         | 英文名稱：Arts Appreciation I                                                                                                                                                                                                                         |               |
| 授課年段：   | 三上                                                                                                                                                                                                                                               | 學分總數：3        |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                             |               |
| 議題融入：   | 多元文化                                                                                                                                                                                                                                             |               |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                           |               |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                                                                                                              |               |
|         | B溝通互動：B3.藝術涵養與美感素養,                                                                                                                                                                                                                              |               |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                              |               |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                           |               |
| 學習目標：   | 1. 認識台灣當代藝術脈絡發展與特色，理解藝術作品的歷史、文化和社會背景。<br>2. 學習當代藝術多元創作題材與各式作品表現形式，培養批判性思維，能夠分析和評價不同藝術形式與風格。<br>3. 透過媒材操作練習，發展自身相關議題與創作面向，進而擴展創作過程的多樣性與相關概念的活用。<br>4. 培養當代藝術的藝術涵養與美感素養，學習如何以觀者角度表達對作品的觀點和情感。<br>5. 啟迪學生的藝術潛能和興趣，培養帶著走的創造性，同時也著重藝術學習與生活、文化等跨領域的結合。 |               |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                             | 單元/主題         |
|         | 一                                                                                                                                                                                                                                                | 課程概述          |
|         | 二                                                                                                                                                                                                                                                | 作品集概念發想       |
|         | 三                                                                                                                                                                                                                                                | 作品集概念發想       |
|         | 四                                                                                                                                                                                                                                                | 作品集概念發想       |
|         | 五                                                                                                                                                                                                                                                | 創造性引導：環境中的點元素 |
|         | 六                                                                                                                                                                                                                                                | 作品集草稿繪製       |
|         | 七                                                                                                                                                                                                                                                | 作品集草稿繪製       |
|         | 八                                                                                                                                                                                                                                                | 作品集草稿繪製       |
|         | 九                                                                                                                                                                                                                                                | 創造性引導：環境中的線元素 |
|         | 十                                                                                                                                                                                                                                                | 作品集系列圖製作      |
|         | 十一                                                                                                                                                                                                                                               | 作品集系列圖製作      |
|         | 十二                                                                                                                                                                                                                                               | 作品集系列圖製作      |
|         | 十三                                                                                                                                                                                                                                               | 創造性引導：環境中的面元素 |
|         | 十四                                                                                                                                                                                                                                               | 作品集定稿完成       |
|         | 十五                                                                                                                                                                                                                                               | 作品集定稿完成       |
|         | 十六                                                                                                                                                                                                                                               | 作品集定稿完成       |
|         | 十七                                                                                                                                                                                                                                               | 作品集定稿完成       |
|         | 十八                                                                                                                                                                                                                                               | 期末發表以及心得回饋    |
|         | 十九                                                                                                                                                                                                                                               |               |
|         | 二十                                                                                                                                                                                                                                               |               |
|         | 二十一                                                                                                                                                                                                                                              |               |
|         | 二十二                                                                                                                                                                                                                                              |               |

內容綱要

學期課程介紹，作品集方向概述與學生自介

於課堂協同發展作品集概念

於課堂協同發展作品集概念

於課堂協同發展作品集概念

於環境中尋找各式“點”概念之呈現，並以手機記錄下來，並延伸各種點的呈現可能

於課堂協同繪製作品集各系列草稿

於課堂協同繪製作品集各系列草稿

於課堂協同繪製作品集各系列草稿

於環境中尋找各式“線”概念之呈現，並以手機記錄下來，將各種線性以多元方式呈現

於課堂協同繪製作品集各系列圖像

於課堂協同繪製作品集各系列圖像

於課堂協同繪製作品集各系列圖像

於環境中尋找各式“面”概念之呈現，並以手機記錄下來，思考多層平面的各式建構可能性

於課堂協同作品集各系列圖像完稿

於課堂協同作品集各系列圖像完稿

於課堂協同作品集各系列圖像完稿

於課堂協同作品集各系列圖像完稿

期末發表個人作品集解析並闡述未來展望

|       |                                     |
|-------|-------------------------------------|
| 學習評量： | 心得回饋 40%、實做評量 30%、同儕互評 20%、成果報告 10% |
| 備註：   |                                     |

【備查版】

|         |                                                                                                                                 |              |
|---------|---------------------------------------------------------------------------------------------------------------------------------|--------------|
| 課程名稱：   | 中文名稱：《紅樓夢》專題探究(下)                                                                                                               |              |
|         | 英文名稱：Analysis of Ancient Chinese Text "Dream of the Red Chamber"                                                                |              |
| 授課年段：   | 三下                                                                                                                              | 學分總數：2       |
| 課程屬性：   | 專題探究                                                                                                                            |              |
| 議題融入：   | 性別平等、人權、生命、家庭教育、閱讀素養                                                                                                            |              |
| 師資來源：   | 外聘(其他)                                                                                                                          |              |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                   |              |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，B3.藝術涵養與美感素養，                                                                                   |              |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，                                                                                                |              |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |              |
| 學習目標：   | 瞭解《紅樓夢》主題意涵與價值觀，建立自我生命價值                                                                                                        |              |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題        |
|         | 一                                                                                                                               | 簡介《紅樓夢》的結構   |
|         | 二                                                                                                                               | 簡介《紅樓夢》的結構   |
|         | 三                                                                                                                               | 簡介《紅樓夢》的結構   |
|         | 四                                                                                                                               | 簡介《紅樓夢》的結構   |
|         | 五                                                                                                                               | 簡介《紅樓夢》的主題思想 |
|         | 六                                                                                                                               | 簡介《紅樓夢》的主題思想 |
|         | 七                                                                                                                               | 簡介《紅樓夢》的主題思想 |
|         | 八                                                                                                                               | 簡介《紅樓夢》的主題思想 |
|         | 九                                                                                                                               | 專題撰寫         |
|         | 十                                                                                                                               | 專題撰寫         |
|         | 十一                                                                                                                              | 專題撰寫         |
|         | 十二                                                                                                                              | 專題撰寫         |
|         | 十三                                                                                                                              | 專題撰寫         |
|         | 十四                                                                                                                              | 專題撰寫         |
|         | 十五                                                                                                                              | 專題撰寫         |
|         | 十六                                                                                                                              | 專題撰寫         |
|         | 十七                                                                                                                              |              |
|         | 十八                                                                                                                              |              |
|         | 十九                                                                                                                              |              |
|         | 二十                                                                                                                              |              |
|         | 二十一                                                                                                                             |              |
|         | 二十二                                                                                                                             |              |
| 學習評量：   | 文本閱讀與口說15%<br>上課提問與回答20%                                                                                                        |              |



|     |                       |
|-----|-----------------------|
|     | 學習態度15%<br>專題製作與報告50% |
| 備註： |                       |

【備查版】

【備查版】

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                    |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：AP 英語文學與作文(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                    |
|         | 英文名稱：AP English Literature and Composition II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                    |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 學分總數：4                                                                                                                             |
| 課程屬性：   | 大學預修課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                    |
| 議題融入：   | 多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                    |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                    |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                    |
|         | B溝通互動：B1.符號運用與溝通表達，B3.藝術涵養與美感素養，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                    |
|         | C社會參與：C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                    |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                    |
| 學習目標：   | <p>Students will:</p> <ul style="list-style-type: none"> <li>• Develop accurate, perceptive reading skills through close study of texts representing various literary genres and time periods.</li> <li>• Analyze texts and: <ul style="list-style-type: none"> <li>• Explain the function of character and setting.</li> <li>• Explain the function of plot and structure.</li> <li>• Explain the function of narrator or speaker.</li> <li>• Explain the function of figurative language such as word choice, imagery, symbols, and comparison.</li> </ul> </li> <li>• Develop textually substantiated arguments about interpretations of part or all of a text.</li> <li>• Develop a fluent, precise writing style through frequent writing over extended and shorter time frames for a range of tasks, purposes, and audiences.</li> </ul> |                                                                                                                                    |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 單元/主題                                                                                                                              |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 6 Longer Fiction or Drama II                                                                                                  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 6 Longer Fiction or Drama II                                                                                                  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 6 Longer Fiction or Drama II                                                                                                  |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7 Short Fiction III                                                                                                           |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7 Short Fiction III                                                                                                           |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7 Short Fiction III                                                                                                           |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7 Short Fiction III                                                                                                           |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Review                                                                                                                             |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 8 Poetry III                                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 內容綱要                                                                                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Interpreting foil characters<br>Understanding and interpreting character motives                                                   |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Understanding nonlinear narrative structures like flashbacks and foreshadowing<br>The effect of narrative tone and bias on reading |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Characters as symbols, metaphors, and archetypes<br>Developing literary arguments within a broader context of works                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Sudden and more gradual change in characters<br>Epiphany as a driver of plot                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Relationships between characters and groups<br>Character interactions with settings                                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The significance of the pacing of a narrative<br>Setting as a symbol                                                               |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Interpreting texts in their historical and societal contexts                                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Questions and Discussions                                                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Looking at punctuation and structural patterns                                                                                     |

|       |                              |                                                                                                          |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------|
|       |                              | Interpreting juxtaposition, paradox, and irony                                                           |
|       | 十                            | Unit 8 Poetry III<br>How ambiguity can allow for various interpretations                                 |
|       | 十一                           | Unit 8 Poetry III<br>Identifying symbols, conceits, and allusions                                        |
|       | 十二                           | Unit 8 Poetry III<br>Learning proper attribution and citation in literary analysis                       |
|       | 十三                           | Unit 9 Longer Fiction or Drama III<br>Looking at a character's response to the resolution of a narrative |
|       | 十四                           | Unit 9 Longer Fiction or Drama III<br>Suspense, resolution, and plot development                         |
|       | 十五                           | Review<br>Questions and Discussions                                                                      |
|       | 十六                           | Wrap-Up<br>Reflections and Final Thoughts                                                                |
|       | 十七                           |                                                                                                          |
|       | 十八                           |                                                                                                          |
|       | 十九                           |                                                                                                          |
|       | 二十                           |                                                                                                          |
|       | 二十一                          |                                                                                                          |
|       | 二十二                          |                                                                                                          |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                                                                          |
| 備註：   | 全英文授課                        |                                                                                                          |

|             |                                                                                                                                                                                                                                              |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： AP物理C:電磁學                                                                                                                                                                                                                              |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|             | 英文名稱： AP <sup>®</sup> Physics C: Electricity & Magnetism                                                                                                                                                                                     |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 授課年段：       | 三下                                                                                                                                                                                                                                           | 學分總數： 4                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                       |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 議題融入：       | 環境、科技、能源                                                                                                                                                                                                                                     |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                       |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決， A3.規劃執行與創新應變，                                                                                                                                                                                                           |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|             | B溝通互動：                                                                                                                                                                                                                                       |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|             | C社會參與：                                                                                                                                                                                                                                       |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，                                                                                                                                                                          |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 學習目標：       | Create representations that depict physical phenomena<br>Conduct analyses to derive, calculate, estimate or predict physical phenomena<br>Describe experimental procedures and methods, interpret results and scientifically support claims. |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                     | 單元/主題                        | 內容綱要                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|             | 一                                                                                                                                                                                                                                            | Electric Chargers and Fields | Describe the electric force that results from the interactions between charged objects or systems.<br>Describe the behavior of a system using the law of the conservation of charge.<br>Describe the electric field produced by a charged object or configuration of point charges.<br>Describe the electric field generated by charged conductors or uniformly charged solid objects.<br>Describe the electric field resulting from a given charge distribution. |
|             | 二                                                                                                                                                                                                                                            | Gauss’ s Law                 | Describe the electric flux through an arbitrary area or geometric shape.<br>Describe the properties of a charge distribution by applying Gauss’s law.                                                                                                                                                                                                                                                                                                             |
|             | 三                                                                                                                                                                                                                                            | Electric Potential           | Describe the electric potential energy of a system.<br>Describe the electric potential due to a configuration of charged objects.                                                                                                                                                                                                                                                                                                                                 |
|             | 四                                                                                                                                                                                                                                            | Potential and Field          | Describe the relationship between electric potential and electric field.<br>Describe changes in a system due to a difference in electric potential between two locations.                                                                                                                                                                                                                                                                                         |
|             | 五                                                                                                                                                                                                                                            | Conductors                   | Describe the charge distribution within a conductor.<br>Describe the movement of charge and the resulting interactions when conductors physically contact each other.                                                                                                                                                                                                                                                                                             |
|             | 六                                                                                                                                                                                                                                            | Capacitors                   | Describe the physical properties of a parallel plate capacitor.<br>Describe how a dielectric inserted between the plates of a capacitor changes the properties of the capacitor.                                                                                                                                                                                                                                                                                  |
|             |                                                                                                                                                                                                                                              |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

|    |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 七  | Current and Resistance      | Describe the movement of electric charges through a medium.<br>Describe the resistance of an object using physical properties of that object                                                                                                                                                                                                                                                                                                                                                                                                         |
| 八  | Fundamentals of Circuits    | Describe the behavior of a circuit.<br>Describe the electrical characteristics of elements within a circuit.<br>Describe the transfer of energy into, out of, or within an electrical circuit in terms of power.<br>Describe the equivalent resistance of multiple resistors connected in a circuit.<br>Describe a circuit with resistive wires and a battery with internal resistance.<br>Describe the measurement of current and potential difference within a circuit.                                                                            |
| 九  | Expanding Circuits          | Describe a circuit or elements within a circuit by applying Kirchhoff's Loop rule.<br>Describe a circuit or elements within a circuit by applying Kirchhoff's Junction rule.<br>Describe the equivalent capacitance of multiple capacitors.<br>Describe the behavior of circuits containing combinations of resistors and capacitors.                                                                                                                                                                                                                |
| 十  | Magnetism                   | Describe the properties of a magnetic field.<br>Describe the magnetic behavior of material as a result of the configuration of magnetic dipoles within the material.<br>Describe the magnetic permeability of a material.                                                                                                                                                                                                                                                                                                                            |
| 十一 | Magnetism and Moving Charge | Describe the magnetic field produced by moving charged objects.<br>Describe the force exerted on moving charged objects by a magnetic field.<br>Describe the magnetic field produced by a current-carrying wire.<br>Describe the force exerted on a current carrying wires by a magnetic field                                                                                                                                                                                                                                                       |
| 十二 | Magnetic Laws               | Use Ampere's law to describe the magnetic field created by a moving charge carrier.<br>Describe the behavior of a system using the laws of the conservation of charge.<br>Describe the resistance of an object using physical properties of an object.<br>Describe the magnetic field produced by a current-carrying wire.<br>Describe the rotation of a system with respect to time using angular displacement, angular velocity, and acceleration.<br>Describe the induced electric potential difference resulting from a change in magnetic flux. |
| 十三 | Electromagnetic Induction   | Describe the magnetic flux through an arbitrary area or geometric shape.<br>Describe the induced electric potential difference resulting from a change in magnet                                                                                                                                                                                                                                                                                                                                                                                     |

|       |                                                        |                                                                                                                                                                                                                                                       |
|-------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                                        | ic flux.<br>Describe the forces exerted on a object that arise from magnetic interaction.<br>Describe the physical and electrical properties of an inductor.                                                                                          |
|       | 十四 Inductors and Circuits                              | Describe the physical and electrical properties of a circuit containing combinations of capacitors and a single inductor.<br>Describe the physical and electrical properties of a circuit containing combinations of resistors and a single inductor. |
|       | 十五 Electricity & Magnetism Review and AP Practice Exam | Review knowledge of Electricity and Magnetism topics and prepare for the AP Physics C Exam by completing Progress Checks.<br>Take a Mechanics AP Practice Exam.                                                                                       |
|       | 十六 AP Exam Review and Reflection                       | Reflect on performance on AP Practice Exam.<br>Prepare to take the real AP Exam.                                                                                                                                                                      |
|       | 十七 Course End Tasks                                    | Provide feedback about your experience in this course.<br>Reflect on how well prepared you feel for the exam.<br>Properly disassemble the lab kit.                                                                                                    |
|       | 十八 Review                                              | Review                                                                                                                                                                                                                                                |
|       | 十九                                                     |                                                                                                                                                                                                                                                       |
|       | 二十                                                     |                                                                                                                                                                                                                                                       |
|       | 二十一                                                    |                                                                                                                                                                                                                                                       |
|       | 二十二                                                    |                                                                                                                                                                                                                                                       |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告                           |                                                                                                                                                                                                                                                       |
| 備註：   | 全英授課                                                   |                                                                                                                                                                                                                                                       |

|             |                                                                                                                                                                        |                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 課程名稱：       | 中文名稱： 大腦風暴:我即我腦                                                                                                                                                        |                                                    |
|             | 英文名稱： Neuroscience: Exploring the Brain                                                                                                                                |                                                    |
| 授課年段：       | 三下                                                                                                                                                                     | 學分總數： 2                                            |
| 課程屬性：       | 跨領域/科目統整                                                                                                                                                               |                                                    |
| 議題融入：       | 性別平等、人權、生命、家庭教育、多元文化                                                                                                                                                   |                                                    |
| 師資來源：       | 校內單科                                                                                                                                                                   |                                                    |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                     |                                                    |
|             | B溝通互動： B1.符號運用與溝通表達,                                                                                                                                                   |                                                    |
|             | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                   |                                                    |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                          |                                                    |
| 學習目標：       | 1. 認識認知神經科學 (cognitive neuroscience) , 探索腦與心智 (brain and mind) 的關連性<br>2. 瞭解認知行為背後的神經科學原理, 並討論這些科學發現對個人及社會的衝擊<br>3. 瞭解常見成癮物質與腦部的交互作用。<br>4. 認識常見的腦部病變與精神疾病並培養關愛、同理之情懷。 |                                                    |
| 教學大綱：       | 週次/<br>序                                                                                                                                                               | 單元/主題                                              |
|             | 一                                                                                                                                                                      | 腦與心智簡介                                             |
|             | 二                                                                                                                                                                      | 子宮中的成長、分娩與父母養育                                     |
|             | 三                                                                                                                                                                      | 胎兒大腦在子宮中受到的威脅                                      |
|             | 四                                                                                                                                                                      | 子宮中大腦的性分化                                          |
|             | 五                                                                                                                                                                      | 大腦與青春期、愛情和性                                        |
|             | 六                                                                                                                                                                      | 下視丘：生存、激素和情感                                       |
|             | 七                                                                                                                                                                      | 成癮物質與大腦                                            |
|             | 八                                                                                                                                                                      | 攻擊性                                                |
|             | 九                                                                                                                                                                      | 自閉症                                                |
|             | 十                                                                                                                                                                      | 思覺失調症與幻覺                                           |
|             | 十一                                                                                                                                                                     | 修復大腦和電刺激                                           |
|             | 十二                                                                                                                                                                     | 道德的大腦，大腦的道德                                        |
|             | 十三                                                                                                                                                                     | 大腦與宗教                                              |
|             | 十四                                                                                                                                                                     | 阿茲海默氏症                                             |
|             | 十五                                                                                                                                                                     | 死亡                                                 |
|             |                                                                                                                                                                        | 內容綱要                                               |
|             |                                                                                                                                                                        | 暴力行為在腦中的運作模式                                       |
|             |                                                                                                                                                                        | 母親和胎兒大腦的互動決定分娩能否順利<br>孩子大腦的發育需要豐富多彩的環境刺激           |
|             |                                                                                                                                                                        | 看上去健康的嬰兒會有問題嗎<br>母親的飲食決定了胎兒大腦的品質                   |
|             |                                                                                                                                                                        | 是男是女，大腦說了算<br>同性戀和戀童癖，都是無法選擇的                      |
|             |                                                                                                                                                                        | 青春期行為：孩子真的沒有動腦嗎<br>從大腦的反應來看，熱戀就是成癮                 |
|             |                                                                                                                                                                        | 名不見經傳的下視丘掌管著你的生存能力<br>抑郁與大笑、貪吃與厭食，都源于紊亂的下視丘        |
|             |                                                                                                                                                                        | 吸食大麻使得潛在的精神分裂癥暴露<br>搖頭丸，帶來快樂和大腦傷害的小妖精              |
|             |                                                                                                                                                                        | 為什麼25歲以下的男孩攻擊性比較強<br>罪犯的大腦可能天生與眾不同，他們應該為此受到懲罰嗎     |
|             |                                                                                                                                                                        | 自閉症天才的大腦很奇特嗎<br>缺乏父母關愛並非自閉症的源頭                     |
|             |                                                                                                                                                                        | 思覺失調症：在子宮中形成，在青春期顯露<br>紊亂的大腦會產生圖像和噪音               |
|             |                                                                                                                                                                        | 大腦內的電極帶給你快樂和健康<br>能用電子產品和他人的大腦修復我們的大腦嗎             |
|             |                                                                                                                                                                        | 經過「大腦切斷機杰克」之手，叛逆者變成了「行屍走肉」<br>天生的道德感同時存在於人類和動物的大腦中 |
|             |                                                                                                                                                                        | 信仰形成於孩子的大腦<br>那些抱有宗教幻想的名人給我們的啟示                    |
|             |                                                                                                                                                                        | 細胞在使用中不斷損壞，阿茲海默氏症趁虛而入<br>激活神經細胞，老了也可以不痴呆           |
|             |                                                                                                                                                                        | 腦細胞在人死後還能存活，我們能用無生命的分子製造生命嗎<br>死後將大腦存入人腦庫，造福後人     |



|                                                               |     |       |                                                        |
|---------------------------------------------------------------|-----|-------|--------------------------------------------------------|
|                                                               | 十六  | 大腦的演化 | 社會的一夫一妻制對大腦進化提出了更高的要求<br>人類與黑猩猩的基因編碼只有6%的差別，他們的大腦卻相去甚遠 |
|                                                               | 十七  |       |                                                        |
|                                                               | 十八  |       |                                                        |
|                                                               | 十九  |       |                                                        |
|                                                               | 二十  |       |                                                        |
|                                                               | 二十一 |       |                                                        |
|                                                               | 二十二 |       |                                                        |
| 學習評量：                                                         |     |       |                                                        |
| 1. 課堂參與（40%）：每堂課程皆有學習單與省思<br>2. 期末報告（60%）：閱讀一本神經科學相關書籍，撰寫導讀文。 |     |       |                                                        |
| 備註：                                                           |     |       |                                                        |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：大數據分析(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|             | 英文名稱：Mathematics of Data Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 授課年段：       | 三下 學分總數：3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 課程屬性：       | 跨領域/科目統整                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 議題融入：       | 資訊                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|             | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|             | C社會參與：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 學習目標：       | This course will broaden your understanding of mathematics as it relates to managing data. You will apply methods for organizing and analyzing large amounts of information; solve problems involving probability and statistics; and carry out a culminating investigation that integrates statistical concepts and skills. You will also refine your use of the mathematical processes necessary for success in senior mathematics. If you are planning to enter university programs in business, the social sciences, and the humanities you will find this course of particular interest. |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                                                                                                                                                                                                                                                                                                                                                            |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 5: Introduction to probability Lesson 11: An introduction to probability                                                                                                                                                                                                                                                                                                                                                    |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 12: Applying probability Part 1: Organized counting and mutually exclusive events                                                                                                                                                                                                                                                                                                                                         |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 13: Applying probability Part 2: Independent and dependent events                                                                                                                                                                                                                                                                                                                                                         |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 14: Probability distributions                                                                                                                                                                                                                                                                                                                                                                                             |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 15: Binomial and hypergeometric probability distributions                                                                                                                                                                                                                                                                                                                                                                 |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit 6: Probability distribution - Part A Lesson 16: Probability distributions for continuous random variables                                                                                                                                                                                                                                                                                                                   |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 16: Probability distributions for continuous random variables                                                                                                                                                                                                                                                                                                                                                             |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 內容綱要                                                                                                                                                                                                                                                                                                                                                                                                                             |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will recognize and describe how probabilities are used to represent the likelihood of a result of an experiment                                                                                                                                                                                                                                                                                                         |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will recognize the use of permutations and combinations as counting techniques with advantages over other counting techniques                                                                                                                                                                                                                                                                                           |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will determine whether two events are independent or dependent and whether one event is conditional on another event, and solve related probability problems                                                                                                                                                                                                                                                            |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will solve probability problems using counting principles for situations involving equally likely outcomes                                                                                                                                                                                                                                                                                                              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will recognize conditions (e.g., dependent trials) that give rise to a random variable that follows a hypergeometric probability distribution, calculate the probability associated with each value of the random variable                                                                                                                                                                                              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will recognize and identify a continuous random variable (i.e., a variable that assumes values from the infinite number of possible outcomes in a continuous sample space), and distinguish between situations that give rise to discrete frequency distributions (e.g., counting the number of outcomes for drawing a card or tossing three coins) and situations that give rise to continuous frequency distributions |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will describe challenges associated with determining a continuous frequency distribution                                                                                                                                                                                                                                                                                                                                |

|    |                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 八  | Lesson 17: Continuous random variables and the normal distribution                           | Students will recognize standard deviation as a measure of the spread of a distribution, and determine, with and without technology, the mean and standard deviation of a sample of values of a continuous random variable                                                                                                                                                                                                    |
| 九  | Lesson 17: Continuous random variables and the normal distribution                           | Students will recognize that theoretical probability for a continuous random variable is determined over a range of values                                                                                                                                                                                                                                                                                                    |
| 十  | Revision                                                                                     | Questions and discussions                                                                                                                                                                                                                                                                                                                                                                                                     |
| 十一 | Unit 7: Probability distribution - Part B Lesson 18: Applications of the normal distribution | Students will make connections, through investigation using dynamic statistical software, between the normal distribution and the binomial and hypergeometric distributions for increasing numbers of trials of the discrete distributions                                                                                                                                                                                    |
| 十二 | Lesson 18: Applications of the normal distribution                                           | Students will recognize that the normal distribution is commonly used to model the frequency and probability distributions of continuous random variables, describe some properties of the normal distribution                                                                                                                                                                                                                |
| 十三 | Lesson 19: Designing and carrying out an investigation                                       | Students will design a plan to study the problem (e.g., identify the variables and the population; develop an ethical survey; establish the procedures for gathering, summarizing, and analyzing the primary or secondary data)                                                                                                                                                                                               |
| 十四 | Lesson 19: Designing and carrying out an investigation                                       | Students will draw conclusions from the analysis of the data (e.g., determine whether the analysis solves the problem), evaluate the strength of the evidence (e.g., by considering factors such as sample size or bias, or the number of times a game is played), specify any limitations of the conclusions, and suggest follow-up problems or investigations                                                               |
| 十五 | Lesson 20: Case study                                                                        | Students will interpret statistics presented in the media (e.g., the UN's finding that 2% of the world's population has more than half the world's wealth, whereas half the world's population has only 1% of the world's wealth), and explain how the media, the advertising industry, and others (e.g., marketers, pollsters) use and misuse statistics (e.g., as represented in graphs) to promote a certain point of view |
| 十六 | Lesson 20: Case study                                                                        | Students will assess the validity of conclusions presented in the media by examining sources of data, including Internet sources, methods of data collection, and possible sources of bias, and by questioning the analysis of the data                                                                                                                                                                                       |
| 十七 |                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 十八 |                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 十九 |                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 二十 |                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                               |

|       |                             |  |  |
|-------|-----------------------------|--|--|
|       | 二十一                         |  |  |
|       | 二十二                         |  |  |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |  |  |
| 備註：   | 全英語授課                       |  |  |

【備查版】

【備查版】

|         |                                                                                                                                            |                                             |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 課程名稱：   | 中文名稱： 日語6                                                                                                                                  |                                             |
|         | 英文名稱： Japanese 6                                                                                                                           |                                             |
| 授課年段：   | 三下                                                                                                                                         | 學分總數： 2                                     |
| 課程屬性：   | 第二外國語文                                                                                                                                     |                                             |
| 議題融入：   | 多元文化                                                                                                                                       |                                             |
| 師資來源：   | 外聘(其他)                                                                                                                                     |                                             |
| 課綱核心素養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                      |                                             |
|         | B溝通互動： B1. 符號運用與溝通表達,                                                                                                                      |                                             |
|         | C社會參與： C3. 多元文化與國際理解,                                                                                                                      |                                             |
| 學生圖像：   | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                             |
| 學習目標：   | 提升日語會話能力：能在日常情境中積極使用日語。<br>適應多種學習需求：適合日常交流、旅遊、學術預備等各種場合，考取N5證照。                                                                            |                                             |
| 教學大綱：   | 週次/<br>序                                                                                                                                   | 單元/主題                                       |
|         | 一                                                                                                                                          | 復習                                          |
|         | 二                                                                                                                                          | 復習                                          |
|         | 三                                                                                                                                          | 第22課                                        |
|         | 四                                                                                                                                          | 第22課                                        |
|         | 五                                                                                                                                          | 第22課                                        |
|         | 六                                                                                                                                          | 復習F                                         |
|         | 七                                                                                                                                          | 第23課                                        |
|         | 八                                                                                                                                          | 第23課                                        |
|         | 九                                                                                                                                          | 第24課                                        |
|         | 十                                                                                                                                          | 第24課                                        |
|         | 十一                                                                                                                                         | 第24課                                        |
|         | 十二                                                                                                                                         | 第25課                                        |
|         | 十三                                                                                                                                         | 第25課                                        |
|         | 十四                                                                                                                                         | 第25課                                        |
|         | 十五                                                                                                                                         | 復習G                                         |
|         | 十六                                                                                                                                         | 測驗                                          |
|         | 十七                                                                                                                                         |                                             |
|         | 十八                                                                                                                                         |                                             |
|         | 十九                                                                                                                                         |                                             |
|         | 二十                                                                                                                                         |                                             |
|         | 二十一                                                                                                                                        |                                             |
|         |                                                                                                                                            | 內容綱要                                        |
|         |                                                                                                                                            | 第17~18課                                     |
|         |                                                                                                                                            | 第19~21課                                     |
|         |                                                                                                                                            | 課文：“您要找怎樣的房子呢?” p. 112~121<br>句型練習A-1(文法)   |
|         |                                                                                                                                            | 課文：“您要找怎樣的房子呢?”<br>練習A-2~6(文法)/單字/相關單字詞彙/例文 |
|         |                                                                                                                                            | 課文：“您要找怎樣的房子呢?”<br>練習A-2~6(文法)/單字/相關單字詞彙/例文 |
|         |                                                                                                                                            | 第20~22課復習p. 122~123+小測驗                     |
|         |                                                                                                                                            | 課文：“該怎麼去?” p. 124~133<br>句型練習A(文法)/會話       |
|         |                                                                                                                                            | 課文：“該怎麼去?”<br>單字/相關單字詞彙/例文/練習B. C/聽力練習      |
|         |                                                                                                                                            | 課文：“我去幫你吧!” p. 134~143<br>句型練習A(文法)         |
|         |                                                                                                                                            | 課文：“我去幫你吧!”<br>單字/相關單字詞彙/例文/會話              |
|         |                                                                                                                                            | 課文：“我去幫你吧!”<br>練習B. C/聽力練習/標準問題集(L23-24)    |
|         |                                                                                                                                            | 課文：“承蒙多方照顧” p. 144~153<br>句型練習A-1(文法)       |
|         |                                                                                                                                            | 課文：“承蒙多方照顧”<br>練習A-2~4(文法)/單字/相關單字詞彙/例文/會話  |
|         |                                                                                                                                            | 課文：“承蒙多方照顧”<br>練習B. C/聽力練習/標準問題集            |
|         |                                                                                                                                            | 第23~25課復習p. 154~155+小測驗                     |
|         |                                                                                                                                            | 課堂測驗(22~25課)                                |

|       |                            |  |  |
|-------|----------------------------|--|--|
|       | 二十<br>二                    |  |  |
| 學習評量： | 課堂參與及實作50%、平時表現25%、期末測驗25% |  |  |
| 備註：   |                            |  |  |

【備查版】

【備查版】

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                               |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：世界文化導論(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                               |
|             | 英文名稱：World Culture II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                               |
| 授課年段：       | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 學分總數：3                                                                                        |
| 課程屬性：       | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                               |
| 議題融入：       | 人權、環境、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                               |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                               |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |
|             | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                               |
|             | C社會參與：C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                               |
| 學習目標：       | This course examines the nature of culture; how cultural identities are acquired, maintained, and transformed; and theories used to analyze cultures. You will explore world cultures, with an emphasis on the analysis of religious and spiritual beliefs, art forms, and philosophy. You will study the contributions and influence of a range of cultural groups and will critically analyze issues facing ethnocultural groups around the world. You will also develop and apply research skills and design and implement a social action initiative relating to cultural diversity. |                                                                                               |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 單元/主題<br>內容綱要                                                                                 |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 5: Hot or not? Beauty and the celebration of life<br>The celebration of life             |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 5: Hot or not? Beauty and the celebration of life<br>Song and dance in cultural contexts |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 5: Hot or not? Beauty and the celebration of life<br>Visual art                          |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 5: Hot or not? Beauty and the celebration of life<br>Ritual                              |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 5: Hot or not? Beauty and the celebration of life<br>The pursuit of beauty               |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Revision<br>Questions and discussions                                                         |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 6: What's next? - Part A<br>What's next? Changing culture in a globalized world          |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 6: What's next? - Part A<br>Historical policies internationally                          |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 6: What's next? - Part A<br>Historical policies internationally                          |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 7: What's next? - Part B<br>Current policies internationally                             |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 7: What's next? - Part B<br>Multiculturalism in modern society                           |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 7: What's next? - Part B<br>Multiculturalism in modern society                           |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 7: What's next? - Part B<br>Designing a social action project                            |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Revision<br>Questions and discussions                                                         |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Social action project presentation<br>Feedback and discussion                                 |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Social action project presentation<br>Feedback and discussion                                 |
|             | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                               |
|             | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                               |
|             | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                               |
|             | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                               |



|       |                             |  |  |
|-------|-----------------------------|--|--|
|       | 二十一                         |  |  |
|       | 二十二                         |  |  |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |  |  |
| 備註：   | 全英語授課                       |  |  |

【備查版】

|             |                                                                    |          |
|-------------|--------------------------------------------------------------------|----------|
| 課程名稱：       | 中文名稱：生醫工程                                                          |          |
|             | 英文名稱：Biomedical Engineering                                        |          |
| 授課年段：       | 三下                                                                 | 學分總數：2   |
| 課程屬性：       | 跨領域/科目統整                                                           |          |
| 議題融入：       | 科技                                                                 |          |
| 師資來源：       | 外聘(大學)                                                             |          |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，                                   |          |
|             | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，B3.藝術涵養與美感素養，                      |          |
|             | C社會參與：C2.人際關係與團隊合作，                                                |          |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， |          |
| 學習目標：       | 參考12年國教新課綱內容，依授課進度條列：介紹符合生醫工程技術知識，簡介生醫工程相關領域研究，為結合物理、化學與生物跨領域課程    |          |
| 教學大綱：       | 週次/<br>序                                                           | 單元/主題    |
|             | 一                                                                  | 電生理學     |
|             | 二                                                                  | 電生理學     |
|             | 三                                                                  | 生醫儀表     |
|             | 四                                                                  | 生醫儀表     |
|             | 五                                                                  | 生醫訊號處理   |
|             | 六                                                                  | 生醫訊號處理   |
|             | 七                                                                  | 醫學科技模擬介紹 |
|             | 八                                                                  | 校外參訪     |
|             | 九                                                                  | 醫學科技模擬介紹 |
|             | 十                                                                  | 組織再生     |
|             | 十一                                                                 | 組織再生     |
|             | 十二                                                                 | 生醫感測器    |
|             | 十三                                                                 | 生醫感測器    |
|             | 十四                                                                 | 醫療器材介紹   |
|             | 十五                                                                 | 醫療器材介紹   |
|             | 十六                                                                 | 期末報告     |
|             | 十七                                                                 |          |
|             | 十八                                                                 |          |
|             | 十九                                                                 |          |
|             | 二十                                                                 |          |
|             | 二十一                                                                |          |
|             | 二十二                                                                |          |
| 學習評量：       | 學習日誌20%<br>作業20%<br>兩次定考40%<br>期末報告20%                             |          |
| 備註：         | 生物醫學工程導論 高材 林康平等編 滄海書局                                             |          |

|         |                                                                                                                                                                                                                                                 |                        |                                |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------|
| 課程名稱：   | 中文名稱： 地球史與生命演化(下)                                                                                                                                                                                                                               |                        |                                |
|         | 英文名稱： Earth’ s History and Evolution II                                                                                                                                                                                                         |                        |                                |
| 授課年段：   | 三下                                                                                                                                                                                                                                              | 學分總數： 2                |                                |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                            |                        |                                |
| 議題融入：   | 環境、海洋                                                                                                                                                                                                                                           |                        |                                |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                          |                        |                                |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                              |                        |                                |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                                                                                                                                            |                        |                                |
|         | C社會參與： C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                              |                        |                                |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                              |                        |                                |
| 學習目標：   | This course develops your understanding of Earth, its place in the universe and the evolution of life. You will investigate the forces in the universe and solar system and will learn about the origin of life and how life evolves over time. |                        |                                |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                            | 單元/主題                  | 內容綱要                           |
|         | 一                                                                                                                                                                                                                                               | Unit 4: Life           | Lesson 13: Definitions of life |
|         | 二                                                                                                                                                                                                                                               | Unit 4: Life           | Lesson 14: Life on earth       |
|         | 三                                                                                                                                                                                                                                               | Unit 4: Life           | Lesson 14: Life on earth       |
|         | 四                                                                                                                                                                                                                                               | Unit 4: Life           | Lesson 15: The origin of life  |
|         | 五                                                                                                                                                                                                                                               | Unit 4: Life           | Lesson 15: The origin of life  |
|         | 六                                                                                                                                                                                                                                               | Revision               | Question and discussion        |
|         | 七                                                                                                                                                                                                                                               | Unit 5: Life evolution | Lesson 16: The Hadean          |
|         | 八                                                                                                                                                                                                                                               | Unit 5: Life evolution | Lesson 17: The Archean         |
|         | 九                                                                                                                                                                                                                                               | Unit 5: Life evolution | Lesson 18: The Proterozoic     |
|         | 十                                                                                                                                                                                                                                               | Unit 5: Life evolution | Lesson 19: The Phanerozoic     |
|         | 十一                                                                                                                                                                                                                                              | Unit 5: Life evolution | Lesson 19: The Phanerozoic     |
|         | 十二                                                                                                                                                                                                                                              | Unit 5: Life evolution | Lesson 19: The Phanerozoic     |
|         | 十三                                                                                                                                                                                                                                              | Revision               | Question and discussion        |
|         | 十四                                                                                                                                                                                                                                              | Project presentation   | Feedback and discussion        |
|         | 十五                                                                                                                                                                                                                                              | Project presentation   | Feedback and discussion        |
|         | 十六                                                                                                                                                                                                                                              | Course wrap-up         | Reflection                     |
|         | 十七                                                                                                                                                                                                                                              |                        |                                |
|         | 十八                                                                                                                                                                                                                                              |                        |                                |
|         | 十九                                                                                                                                                                                                                                              |                        |                                |
|         | 二十                                                                                                                                                                                                                                              |                        |                                |
|         | 二十一                                                                                                                                                                                                                                             |                        |                                |
| 二十二     |                                                                                                                                                                                                                                                 |                        |                                |
| 學習評量：   | 課堂互動(15%)、作業(70%)、專題報告(15%)                                                                                                                                                                                                                     |                        |                                |
| 備註：     | 全英語授課                                                                                                                                                                                                                                           |                        |                                |

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|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 西班牙語6                                                                                                                                |                                                                   |
|             | 英文名稱： Spanish 6                                                                                                                            |                                                                   |
| 授課年段：       | 三下                                                                                                                                         | 學分總數： 2                                                           |
| 課程屬性：       | 第二外國語文                                                                                                                                     |                                                                   |
| 議題融入：       | 多元文化、國際教育                                                                                                                                  |                                                                   |
| 師資來源：       | 外聘(其他)                                                                                                                                     |                                                                   |
| 課綱核心素<br>養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                      |                                                                   |
|             | B溝通互動： B1. 符號運用與溝通表達,                                                                                                                      |                                                                   |
|             | C社會參與： C3. 多元文化與國際理解,                                                                                                                      |                                                                   |
| 學生圖像：       | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                   |
| 學習目標：       | 1. 培養學生將基本西班牙文概念，運用於生活中說、聽、寫的能力。<br>2. 增進學生對西班牙及拉丁美洲國家生活用語之不同的認識。<br>3. 將學生學習之西班牙文，更深入的自由運用在閱讀、寫作與製作戲劇之中。                                  |                                                                   |
| 教學大綱：       | 週次/<br>序                                                                                                                                   | 單元/主題                                                             |
|             | 一                                                                                                                                          | 可能情境                                                              |
|             | 二                                                                                                                                          | 可能情境II                                                            |
|             | 三                                                                                                                                          | 身體軀幹                                                              |
|             | 四                                                                                                                                          | 你哪裡痛?                                                             |
|             | 五                                                                                                                                          | 命令祈使句                                                             |
|             | 六                                                                                                                                          | 命令祈使句II                                                           |
|             | 七                                                                                                                                          | 你心情如何?                                                            |
|             | 八                                                                                                                                          | 文化饗宴                                                              |
|             | 九                                                                                                                                          | Por 與 para                                                        |
|             | 十                                                                                                                                          | 志工活動                                                              |
|             | 十一                                                                                                                                         | 網絡與社群媒體                                                           |
|             |                                                                                                                                            | 內容綱要                                                              |
|             |                                                                                                                                            | 使用西語與同學交流放假趣事<br>可能式時態<br>疑問句型: ¿Qué harías si...?<br>假設問題並以可能是回答 |
|             |                                                                                                                                            | 可能式時態II<br>假設活在另一個星球的樣子即刻能發生的事，並與同學分享                             |
|             |                                                                                                                                            | 身體軀幹相關詞彙<br>遊戲：身體軀幹聽與碰<br>繪製一玩偶圖像，指示出身體軀幹部位                       |
|             |                                                                                                                                            | 動詞:Doler<br>疾病/藥方相關詞彙<br>角色扮演：醫生與患者                               |
|             |                                                                                                                                            | 肯定/否定命令祈使句<br>給予意見與指示                                             |
|             |                                                                                                                                            | 維持健康的應該與不應該的行為<br>分組活動：4人一組，繪製”維持健康的應該與不應該的行為”，並展示之               |
|             |                                                                                                                                            | 情緒詢問/表達用法<br>腦力激盪：做什麼可以改善情緒?<br>假想如果你活在100年前的時代是怎麼樣?              |
|             |                                                                                                                                            | 西班牙三王節慶典                                                          |
|             |                                                                                                                                            | por 與 para用法差異<br>對於從事某是給予原因                                      |
|             |                                                                                                                                            | 志工/義工相關詞彙<br>國際非營利組織與志工計畫<br>想像志工／義工的經驗，並與同學分享                    |
|             |                                                                                                                                            | 網絡與社群媒體相關詞彙<br>分析使用社群媒體好與壞<br>課堂活動：於紙上設計一臉書大頭貼個人資訊，並與同學分享         |

|       |                              |        |                                 |
|-------|------------------------------|--------|---------------------------------|
|       | 十二                           | 期望的表達  | 虛擬式導讀<br>表達自己未來的期望<br>詢問同學的未來展望 |
|       | 十三                           | 總複習    | 過去式文法大全複習<br>第1~12週學習內容總複習      |
|       | 十四                           | 海報製作I  | 地理特徵相關的詞彙<br>未來展望:成為大學生的自己(圖+文) |
|       | 十五                           | 海報製作II | 未來展望:成為大學生的自己(圖+文)              |
|       | 十六                           | 成果發表   | 各組海報賞析/再見歡                      |
|       | 十七                           |        |                                 |
|       | 十八                           |        |                                 |
|       | 十九                           |        |                                 |
|       | 二十                           |        |                                 |
|       | 二十一                          |        |                                 |
|       | 二十二                          |        |                                 |
| 學習評量： | 課堂互動20%小組合作20%作品產出30%複習測驗30% |        |                                 |
| 備註：   |                              |        |                                 |

|         |                                                                                                                                        |         |         |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| 課程名稱：   | 中文名稱： 法語6                                                                                                                              |         |         |
|         | 英文名稱： French 6                                                                                                                         |         |         |
| 授課年段：   | 三下                                                                                                                                     | 學分總數： 2 |         |
| 課程屬性：   | 第二外國語文                                                                                                                                 |         |         |
| 議題融入：   | 多元文化、國際教育                                                                                                                              |         |         |
| 師資來源：   | 外聘(其他)                                                                                                                                 |         |         |
| 課綱核心素養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                  |         |         |
|         | B溝通互動： B1. 符號運用與溝通表達,                                                                                                                  |         |         |
|         | C社會參與： C3. 多元文化與國際理解,                                                                                                                  |         |         |
| 學生圖像：   | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3. 個性完善：愛心熱誠、誠信正直、自律自省。， 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |         |         |
| 學習目標：   | 1. 培養學生將基本法文概念，運用於生活中說、聽、寫的能力。<br>2. 增進學生對法國與歐洲國家生活用語之不同的認識。<br>3. 將學生學習之法文，更深入的自由運用在閱讀、寫作與製作戲劇之中。                                     |         |         |
| 教學大綱：   | 週次/<br>序                                                                                                                               | 單元/主題   | 內容綱要    |
|         | 一                                                                                                                                      | 法語戲劇世界  | 故事賞析    |
|         | 二                                                                                                                                      | 法語戲劇世界  | 故事賞析    |
|         | 三                                                                                                                                      | 劇本閱讀    | 劇本閱讀    |
|         | 四                                                                                                                                      | 劇本閱讀    | 劇本閱讀    |
|         | 五                                                                                                                                      | 劇本創作    | 劇本分組討論  |
|         | 六                                                                                                                                      | 劇本創作    | 劇本分組討論  |
|         | 七                                                                                                                                      | 劇本發表會   | 劇本發表與回饋 |
|         | 八                                                                                                                                      | 劇本發表會   | 劇本發表與回饋 |
|         | 九                                                                                                                                      | 劇本修訂    | 劇本分組討論  |
|         | 十                                                                                                                                      | 劇本修訂    | 劇本分組討論  |
|         | 十一                                                                                                                                     | 劇本修訂    | 劇本分組討論  |
|         | 十二                                                                                                                                     | 戲劇後製    | 道具服裝製作  |
|         | 十三                                                                                                                                     | 戲劇後製    | 道具服裝製作  |
|         | 十四                                                                                                                                     | 戲劇排演    | 劇本排練    |
|         | 十五                                                                                                                                     | 戲劇排演    | 劇本排練    |
|         | 十六                                                                                                                                     | 劇本發表會   | 劇本發表與回饋 |
|         | 十七                                                                                                                                     |         |         |
|         | 十八                                                                                                                                     |         |         |
|         | 十九                                                                                                                                     |         |         |
|         | 二十                                                                                                                                     |         |         |
|         | 二十一                                                                                                                                    |         |         |
|         | 二十二                                                                                                                                    |         |         |
| 學習評量：   | 課堂互動 30 %、課堂實作 20 %、小組合作 30 %、作品產出20%                                                                                                  |         |         |
| 備註：     |                                                                                                                                        |         |         |

|         |                                                                                                                                    |                       |                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------|
| 課程名稱：   | 中文名稱： 物聯網入門                                                                                                                        |                       |                                                           |
|         | 英文名稱： Project Study of “Internet of Thing”：Introduction                                                                            |                       |                                                           |
| 授課年段：   | 三下                                                                                                                                 | 學分總數： 2               |                                                           |
| 課程屬性：   | 跨領域/科目統整                                                                                                                           |                       |                                                           |
| 議題融入：   | 環境、科技、資訊、能源                                                                                                                        |                       |                                                           |
| 師資來源：   | 外聘(其他)                                                                                                                             |                       |                                                           |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決， A3.規劃執行與創新應變，                                                                                                 |                       |                                                           |
|         | B溝通互動： B2.科技資訊與媒體素養， B3.藝術涵養與美感素養，                                                                                                 |                       |                                                           |
|         | C社會參與： C2.人際關係與團隊合作， C3.多元文化與國際理解，                                                                                                 |                       |                                                           |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                       |                                                           |
| 學習目標：   | 1. 實作與了解物聯網感應器在生活中的應用。<br>2. 培養自我進度規劃、團隊合作、表達能力、統整資源的能力。<br>3. 虛實互換真正做到IOT物聯網整合於各項感測器。                                             |                       |                                                           |
| 教學大綱：   | 週次/序                                                                                                                               | 單元/主題                 | 內容綱要                                                      |
|         | 一                                                                                                                                  | 《物聯網》感測器初體驗           | 生活物聯網開發套件<br>程式概念+Webduino Blockly 教學<br>輸入/輸出基本訓練，認識麵包板。 |
|         | 二                                                                                                                                  | Webduino Blockly+感測器1 | 程式功能實測：LED點矩陣、蜂鳴器                                         |
|         | 三                                                                                                                                  | Webduino Blockly+感測器2 | 程式功能實測：超音波感測器                                             |
|         | 四                                                                                                                                  | Webduino Blockly+感測器3 | 程式功能實測：RFID                                               |
|         | 五                                                                                                                                  | Webduino Blockly+感測器4 | 程式功能實測：紅外線感測                                              |
|         | 六                                                                                                                                  | 《物聯網》綜合應用一            | 綜合實作：倒車雷達                                                 |
|         | 七                                                                                                                                  | 《雲端運算》網路架構初體驗         | 認識網路/雲端架構                                                 |
|         | 八                                                                                                                                  | 《雲端運算》X《創客思維》         | 大數據彙整+綜合教學<br>空氣偵測顯示器+雲端資料收集                              |
|         | 九                                                                                                                                  | 《雲端運算》X《創客思維》         | 大數據彙整+綜合教學<br>空氣偵測顯示器+雲端資料收集                              |
|         | 十                                                                                                                                  | 《創客思維》小組專題設計          | 專題規劃書(工程筆記)<br>將學習的程式和過程彙整，並將硬體及軟體整合，設計一份物聯網專題。           |
|         | 十一                                                                                                                                 | 《創客思維》小組專題設計          | 專題實作                                                      |
|         | 十二                                                                                                                                 | 《創客思維》小組專題設計          | 專題實作                                                      |
|         | 十三                                                                                                                                 | 《創客思維》小組專題設計          | 專題實作                                                      |
|         | 十四                                                                                                                                 | 《創客思維》小組專題設計          | 專題實作                                                      |
|         | 十五                                                                                                                                 | 《創客思維》小組專題發表          | 各組發表                                                      |
|         | 十六                                                                                                                                 | 《創客思維》小組專題發表          | 各組發表                                                      |
|         | 十七                                                                                                                                 |                       |                                                           |
|         | 十八                                                                                                                                 |                       |                                                           |
|         | 十九                                                                                                                                 |                       |                                                           |
|         | 二十                                                                                                                                 |                       |                                                           |
|         | 二十一                                                                                                                                |                       |                                                           |
| 二十二     |                                                                                                                                    |                       |                                                           |
| 學習評量：   | 上課態度20%<br>實作作品40%                                                                                                                 |                       |                                                           |



|     |             |
|-----|-------------|
|     | 小組團隊作品發表40% |
| 備註： |             |

【備查版】

【備查版】

|         |                                                                                                                                                        |                                        |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 課程名稱：   | 中文名稱：物聯網專題製作                                                                                                                                           |                                        |
|         | 英文名稱：Project Study of “Internet of Thing”                                                                                                              |                                        |
| 授課年段：   | 三下                                                                                                                                                     | 學分總數：2                                 |
| 課程屬性：   | 跨領域/科目專題                                                                                                                                               |                                        |
| 議題融入：   | 科技、資訊                                                                                                                                                  |                                        |
| 師資來源：   | 外聘(其他)                                                                                                                                                 |                                        |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                       |                                        |
|         | B溝通互動：B2.科技資訊與媒體素養，B3.藝術涵養與美感素養，                                                                                                                       |                                        |
|         | C社會參與：C2.人際關係與團隊合作，                                                                                                                                    |                                        |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                        |                                        |
| 學習目標：   | 1.了解運算思維與創客精神，並願意主動思考無限的可能性。<br>2.了解「程式邏輯」在日程生活中的呈現。<br>3.培養自我進度規劃、團隊合作、表達能力、統整資源的能力。<br>4.虛實互換真正做到IOT物聯網整合於，各項感測器及智慧路燈組裝、編程。<br>5.學期終了賦予認證考試，並評鑑L1資格。 |                                        |
| 教學大綱：   | 週次/序                                                                                                                                                   | 單元/主題                                  |
|         | 一                                                                                                                                                      | 課程介紹，課堂規定宣導 Webduino smart初體驗          |
|         | 二                                                                                                                                                      | 心智圖+ Webduinoblockly game邏輯訓練          |
|         | 三                                                                                                                                                      | 《雲端運算》網路架構初體驗 程式概念+Webduino Blockly 教學 |
|         | 四                                                                                                                                                      | Webduino Blockly+感測器1                  |
|         | 五                                                                                                                                                      | Webduino Blockly+感測器2                  |
|         | 六                                                                                                                                                      | Webduino Blockly+感測器3                  |
|         | 七                                                                                                                                                      | Webduino Blockly+感測器4                  |
|         | 八                                                                                                                                                      | 《IOT物聯網》綜合應用                           |
|         | 九                                                                                                                                                      | 《創客思維》小組專題設計                           |
|         | 十                                                                                                                                                      | 《IOT物聯網》期中考                            |
|         | 十一                                                                                                                                                     | 《雲端運算》X《創客思維》                          |
|         | 十二                                                                                                                                                     | 《IOT物聯網》專題/智慧路燈                        |
|         | 十三                                                                                                                                                     | 《IOT物聯網》專題/智慧路燈                        |
|         | 十四                                                                                                                                                     | 《創客思維》校外參訪                             |
|         | 十五                                                                                                                                                     | 成果發表                                   |
|         | 十六                                                                                                                                                     | 成果發表                                   |
|         | 十七                                                                                                                                                     |                                        |
|         | 十八                                                                                                                                                     |                                        |
|         | 十九                                                                                                                                                     |                                        |
|         | 二十                                                                                                                                                     |                                        |

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|-------|--------------------------------------------------|--|
|       | 二十一                                              |  |
|       | 二十二                                              |  |
| 學習評量： | 作品實作及成果演示 50%<br>工程筆記紀錄 30%<br>學習歷程10%<br>情意 10% |  |
| 備註：   |                                                  |  |

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|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：社會學                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                       |
|         | 英文名稱：Sociology                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                       |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                              | 學分總數：3                                                                                                                                                                                                                                                                                                                                                                |
| 課程屬性：   | 通識性課程                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                       |
| 議題融入：   | 性別平等、人權、環境、法治、科技、資訊、多元文化、國際教育                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                       |
| 師資來源：   | 外聘(大學)                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                       |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                       |
|         | C社會參與：C1.道德實踐與公民意識,                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                       |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                       |
| 學習目標：   | Introduction to Sociology will be based upon Internet Research, course readings, contemporary movies, and looking at current events using the "sociological imagination." There will be discussions about assignments and current news events as evidence of social patterns and social change. |                                                                                                                                                                                                                                                                                                                                                                       |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                            | 單元/主題                                                                                                                                                                                                                                                                                                                                                                 |
|         | 一                                                                                                                                                                                                                                                                                               | Unit I. Socialization, Deviance, and Social Control.                                                                                                                                                                                                                                                                                                                  |
|         | 二                                                                                                                                                                                                                                                                                               | Unit I. Socialization, Deviance, and Social Control.                                                                                                                                                                                                                                                                                                                  |
|         | 三                                                                                                                                                                                                                                                                                               | Unit I. Socialization, Deviance, and Social Control.                                                                                                                                                                                                                                                                                                                  |
|         | 四                                                                                                                                                                                                                                                                                               | Unit I. Socialization, Deviance, and Social Control.                                                                                                                                                                                                                                                                                                                  |
|         | 五                                                                                                                                                                                                                                                                                               | Unit II. Social Inequality and Discrimination                                                                                                                                                                                                                                                                                                                         |
|         | 六                                                                                                                                                                                                                                                                                               | Unit II. Social Inequality and Discrimination                                                                                                                                                                                                                                                                                                                         |
|         |                                                                                                                                                                                                                                                                                                 | 內容綱要                                                                                                                                                                                                                                                                                                                                                                  |
|         |                                                                                                                                                                                                                                                                                                 | In this unit students are introduced to the basic vocabulary, concepts, and theoretical perspectives of Sociology. They become familiar with the functionalist, interactionist, and conflict perspectives and the different ways that each view social trends and problems.                                                                                           |
|         |                                                                                                                                                                                                                                                                                                 | The influence of society in inspiring patterns of human behavior, and creating standards for normal and consequences of violating expected behavior is discussed and then applied to analysis of criminal behavior and mental illness as examples of deviance. Students critically examine the agents of social control, family, law, jails, and mental institutions. |
|         |                                                                                                                                                                                                                                                                                                 | Students watch a movie in class and note down observations and questions during class. Possible movie selections: "The Breakfast Club", "One flew Over the Cuckoo's Nest," and "Girl Interrupted."                                                                                                                                                                    |
|         |                                                                                                                                                                                                                                                                                                 | Students share and discuss observations and questions based on the movie watched.                                                                                                                                                                                                                                                                                     |
|         |                                                                                                                                                                                                                                                                                                 | In this unit students discuss and analyze differences in wealth, power, and prestige by gender, race, ethnicity, and ability/disability. Minority groups are examined. Students will grow to understand both the social roots of discrimination, and the perpetuation of disadvantage by group.                                                                       |
|         |                                                                                                                                                                                                                                                                                                 | The growing gap between the rich and the poor, and the implications of poverty will be examined. This unit is designed to help students develop empathy for the disadvantaged and understand the differences between                                                                                                                                                  |

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|-------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                               | n "blaming the victim" and "blaming the system."                                                                                                                                                                                                                                                                     |
| 七     | Unit II. Social Inequality and Discrimination | Students watch a movie in class and note down observations and questions during class. Possible movie selections: "Boyz n' the Hood", "The Outsiders", "There are No Children Here," "Higher Learning."                                                                                                              |
| 八     | Unit II. Social Inequality and Discrimination | Students share and discuss observations and questions based on the movie watched. During this unit students will choose and begin working on a research presentation about an issue of interest to them.                                                                                                             |
| 九     | Unit III. Social Institutions.                | Students will examine trends in the family, education, government, religion, medicine, and the media.                                                                                                                                                                                                                |
| 十     | Unit III. Social Institutions.                | Student presentations will be the emphasis with topics like: What does it mean to be homeless? Do women face a glass ceiling in the workplace? What are the implications of the rising divorce rate? What are the responsibilities of unwed fathers? How does Taiwan's health care system compare to other nations'? |
| 十一    | Unit III. Social Institutions.                | Student-led presentations and discussions, which will provide practice in using the "sociological imagination", plus basic research and presentation skills.                                                                                                                                                         |
| 十二    | Unit III. Social Institutions.                | Students will begin designing a survey that each can administer with the results compiled and analyzed in Unit IV.                                                                                                                                                                                                   |
| 十三    | Unit IV. The Craft of Sociology.              | In this unit students will learn about the four basic methods of sociological research: observation, survey, document analysis, and experimentation. The concepts of survey reliability, validity, and correlation will be explained, along with basic statistics such as mean, mode, and median.                    |
| 十四    | Unit IV. The Craft of Sociology.              | The class will develop, administer and analyze the findings of a survey related to school and/or community issues.                                                                                                                                                                                                   |
| 十五    | Unit IV. The Craft of Sociology.              | The class will present and discuss the findings of their survey.                                                                                                                                                                                                                                                     |
| 十六    | Wrap-up and reflections                       | The class will discuss and reflect on what they have learned throughout the semester and how the course has changed the way they view current events and social change.                                                                                                                                              |
| 十七    |                                               |                                                                                                                                                                                                                                                                                                                      |
| 十八    |                                               |                                                                                                                                                                                                                                                                                                                      |
| 十九    |                                               |                                                                                                                                                                                                                                                                                                                      |
| 二十    |                                               |                                                                                                                                                                                                                                                                                                                      |
| 二十一   |                                               |                                                                                                                                                                                                                                                                                                                      |
| 二十二   |                                               |                                                                                                                                                                                                                                                                                                                      |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告                  |                                                                                                                                                                                                                                                                                                                      |
| 備註：   | 全英語授課                                         |                                                                                                                                                                                                                                                                                                                      |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                            |                                                         |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------|
| 課程名稱：   | 中文名稱： 社會變遷與挑戰(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                            |                                                         |
|         | 英文名稱： Challenge and Change in Society II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                            |                                                         |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 學分總數： 3                                                    |                                                         |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                            |                                                         |
| 議題融入：   | 人權、環境、生命、法治、資訊、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                            |                                                         |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                            |                                                         |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |                                                         |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                            |                                                         |
|         | C社會參與： C1.道德實踐與公民意識, C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                            |                                                         |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |                                                         |
| 學習目標：   | This course focuses on the use of social science theories, perspectives, and methodologies to investigate and explain shifts in knowledge, attitudes, beliefs, and behavior and their impact on society. Students will critically analyze how and why cultural, social, and behavioral patterns change over time. They will explore the ideas of social theorists and use those ideas to analyze causes of and responses to challenges such as technological change, deviance, and global inequalities. Students will explore ways in which social science research methods can be used to study social change. |                                                            |                                                         |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 單元/主題                                                      | 內容綱要                                                    |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 How does social change affect us?                   | The population paradox                                  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 How does social change affect us?                   | The challenge of immigration                            |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 How does social change affect us?                   | Who am I?                                               |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 How does social change affect us?                   | Exceptions to the rule                                  |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 5 How does social change affect us?                   | How to encourage society to fall in-line                |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Revision                                                   | Questions and discussions                               |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 6: What are some examples of social change? - Part A? | Discrimination, prejudice, and our protection of rights |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 6: What are some examples of social change? - Part A? | Discrimination, prejudice, and our protection of rights |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 6: What are some examples of social change? - Part A? | Poverty and its causes                                  |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit 6: What are some examples of social change? - Part A? | Poverty and its causes                                  |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Revision                                                   | Questions and discussions                               |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7: What are some examples of social change? - Part B  | Are we becoming too interconnected?                     |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7: What are some examples of social change? - Part B  | Why are there more slaves in the world now?             |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit 7: What are some examples of social change? - Part B  | Environmental matters                                   |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Final project                                              | Final project sharing and feedback                      |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Final project                                              | Final project sharing and feedback                      |
| 十七      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                            |                                                         |

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|-------|-----------------------------|--|--|
|       | 十八                          |  |  |
|       | 十九                          |  |  |
|       | 二十                          |  |  |
|       | 二十一                         |  |  |
|       | 二十二                         |  |  |
|       |                             |  |  |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |  |  |
| 備註：   | 全英語授課                       |  |  |

【備查版】

【備查版】



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|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------------------------|
| 課程名稱：       | 中文名稱： 股市投資概論                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |                                              |
|             | 英文名稱： Investing in the Stock Market                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                                              |
| 授課年段：       | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數： 2 |                                              |
| 課程屬性：       | 通識性課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                              |
| 議題融入：       | 科技、資訊、生涯規劃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |                                              |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                              |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |                                              |
|             | B溝通互動： B2.科技資訊與媒體素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |                                              |
|             | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |                                              |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                    |         |                                              |
| 學習目標：       | <ul style="list-style-type: none"><li>• Read and interpret a stock quote</li><li>• Distinguish the different investment alternatives in the market</li><li>• Manage a portfolio by creating a comprehensive investment portfolio using a spreadsheet program</li><li>• Apply a diversified approach that matches investment objectives</li><li>• Analyze what can positively and negatively affect the markets</li><li>• Identify and apply various tools to help make investment decisions</li></ul> |         |                                              |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題   | 內容綱要                                         |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit1   | Welcome to Investing in the Stock Market!    |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit2   | The Basics of Economics                      |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit3   | Supply and Demand                            |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit4   | The New York Stock Exchange and Mutual Funds |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit5   | How the NYSE Operates                        |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit6   | Analyzing a Company's Value                  |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit7   | Researching Brokers and Investment Sites     |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit8   | Consumer Confidence                          |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit9   | Creating an Investment Portfolio             |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit10  | How to Evaluate Stocks and Stock Splits      |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit11  | Decisions About Making Trades                |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit12  | Bull and Bear Markets                        |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit13  | Message Boards and Risk Assessment           |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit14  | Global Markets and Natural Disasters         |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit15  | Project presentations                        |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit16  | Final Reflection and Thoughts                |
|             | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                                              |
|             | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                                              |
|             | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                                              |
|             | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                                              |
|             | 二十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                                              |
| 二十二         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                                              |
| 學習評量：       | 40% 課堂參與討論、30% 回家作業、30% 專題報告                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |                                              |
| 備註：         | 全英文授課                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                              |

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| 課程名稱：       | 中文名稱：表演藝術中的科學應用                                                                                               |          |
|             | 英文名稱：Application of scientific principles in performance art                                                  |          |
| 授課年段：       | 三下                                                                                                            | 學分總數：2   |
| 課程屬性：       | 實作(實驗)及探索體驗                                                                                                   |          |
| 議題融入：       | 閱讀素養                                                                                                          |          |
| 師資來源：       | 校內單科                                                                                                          |          |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                           |          |
|             | B溝通互動：B2.科技資訊與媒體素養,                                                                                           |          |
|             | C社會參與：C2.人際關係與團隊合作,                                                                                           |          |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |          |
| 學習目標：       | 培養學生探究實作,學理驗證,科學素養,問題解決,表達能力                                                                                  |          |
| 教學大綱：       | 週次/<br>序                                                                                                      | 單元/主題    |
|             | 一                                                                                                             | 天然物質酸鹼反應 |
|             | 二                                                                                                             | 蝶豆花酸鹼指示劑 |
|             | 三                                                                                                             | 奈米鐵粉生火   |
|             | 四                                                                                                             | 化學泡沫     |
|             | 五                                                                                                             | 分組演示     |
|             | 六                                                                                                             | 棉花糖      |
|             | 七                                                                                                             | 爆米花      |
|             | 八                                                                                                             | 槌糖       |
|             | 九                                                                                                             | 冷劑冰淇淋    |
|             | 十                                                                                                             | 分組演示     |
|             | 十一                                                                                                            | 銀鏡反應一    |
|             | 十二                                                                                                            | 銀鏡反應二    |
|             | 十三                                                                                                            | 化學螢光一    |
|             | 十四                                                                                                            | 化學螢光二    |
|             | 十五                                                                                                            | 分組演示     |
|             | 十六                                                                                                            | 期末展演     |
|             | 十七                                                                                                            |          |
|             | 十八                                                                                                            |          |
|             | 十九                                                                                                            |          |
|             | 二十                                                                                                            |          |
|             | 二十一                                                                                                           |          |
|             | 二十二                                                                                                           |          |
| 學習評量：       | 實作評量40%, 演示評量40%, 形成式評量20%                                                                                    |          |
| 備註：         |                                                                                                               |          |

|         |                                                                                                                                        |                                           |
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| 課程名稱：   | 中文名稱： 城市的歷史記憶（下）                                                                                                                       |                                           |
|         | 英文名稱： Taipei: History, Geography and Citizenship                                                                                       |                                           |
| 授課年段：   | 三下                                                                                                                                     | 學分總數： 2                                   |
| 課程屬性：   | 跨領域/科目專題                                                                                                                               |                                           |
| 議題融入：   | 性別平等、人權、環境、生命、能源、安全、防災、家庭教育、多元文化、閱讀素養、戶外教育、原住民族教育                                                                                      |                                           |
| 師資來源：   | 校內單科                                                                                                                                   |                                           |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                       |                                           |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養, B3.藝術涵養與美感素養,                                                                                       |                                           |
|         | C社會參與： C1.道德實踐與公民意識, C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                       |                                           |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                           |
| 學習目標：   | 1. 本課程將介紹與聯合國17個可持續發展目標中的三個目標相關的城市可持續發展主題。<br>2. 熟悉城市發展之相關議題、建城背景成因，能瞭解都市歷史設計及計畫。<br>3. 熟悉城市發展與環境之關係，能進行跨域整合及環境規劃。                     |                                           |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題                                     |
|         | 一                                                                                                                                      | 課程介紹                                      |
|         | 二                                                                                                                                      | 導論：千年古都                                   |
|         | 三                                                                                                                                      | 主題一：行政型城市                                 |
|         | 四                                                                                                                                      | 主題二：商業型城市                                 |
|         | 五                                                                                                                                      | 主題三：宗教型城市                                 |
|         | 六                                                                                                                                      | 主題四：國防型城市                                 |
|         | 七                                                                                                                                      | 主題五：殖民型城市                                 |
|         | 八                                                                                                                                      | 主題六：移民型城市                                 |
|         | 九                                                                                                                                      | 小組報告選題                                    |
|         | 十                                                                                                                                      | 小組報告製作                                    |
|         | 十一                                                                                                                                     | 小組報告製作                                    |
|         | 十二                                                                                                                                     | 小組報告製作                                    |
|         | 十三                                                                                                                                     | 小組報告                                      |
|         | 十四                                                                                                                                     | 小組報告                                      |
|         | 十五                                                                                                                                     | 綜合討論                                      |
|         | 十六                                                                                                                                     | 課程總結                                      |
|         | 十七                                                                                                                                     |                                           |
|         | 十八                                                                                                                                     |                                           |
|         | 十九                                                                                                                                     |                                           |
|         | 二十                                                                                                                                     |                                           |
|         |                                                                                                                                        | 內容綱要                                      |
|         |                                                                                                                                        | 介紹課程綱要與本學期主要活動、分組                         |
|         |                                                                                                                                        | 透過歷史風華，討論城市形成與樣態                          |
|         |                                                                                                                                        | 討論因行政需求而設立的城市                             |
|         |                                                                                                                                        | 討論因商業需求而設立的城市                             |
|         |                                                                                                                                        | 討論因宗教因素而形成的城市                             |
|         |                                                                                                                                        | 討論因國防需求而形成的城市                             |
|         |                                                                                                                                        | 討論因殖民體制而形成的城市                             |
|         |                                                                                                                                        | 討論因移民因素而形成的城市                             |
|         |                                                                                                                                        | 1. 分組討論<br>2. 資料收集                        |
|         |                                                                                                                                        | 1. 分組討論<br>2. 資料收集<br>3. 文獻閱讀<br>4. 投影片製作 |
|         |                                                                                                                                        | 1. 分組討論<br>2. 資料收集<br>3. 文獻閱讀<br>4. 投影片製作 |
|         |                                                                                                                                        | 1. 分組討論<br>2. 資料收集<br>3. 文獻閱讀<br>4. 投影片製作 |
|         |                                                                                                                                        | 1. 小組報告<br>2. 完成互評表                       |
|         |                                                                                                                                        | 1. 小組報告<br>2. 完成互評表                       |
|         |                                                                                                                                        | 針對小組報告進行講評                                |
|         |                                                                                                                                        | 引導學生進行總結性的回顧與分享                           |

|       |                                                                                |  |  |
|-------|--------------------------------------------------------------------------------|--|--|
|       | 二十一                                                                            |  |  |
|       | 二十二                                                                            |  |  |
| 學習評量： | 1. 檔案評量（書面報告） 20%<br>2. 實作評量（實作、作業、鑑賞） 50%<br>3. 口語評量（口頭報告） 20%<br>4. 自我評量 10% |  |  |
| 備註：   |                                                                                |  |  |

【備查版】

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|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：美國憲法                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                         |
|             | 英文名稱：Constitutional Law                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                         |
| 授課年段：       | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                      | 學分總數：3                                                                                                  |
| 課程屬性：       | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                         |
| 議題融入：       | 科技、多元文化、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                         |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                         |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                         |
|             | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                         |
|             | C社會參與：C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                         |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                  |                                                                                                         |
| 學習目標：       | <ul style="list-style-type: none"> <li>Students will analyze and interpret the foundational arguments surrounding the ratification of the United States Constitution.</li> <li>Students will compare and contrast the Supreme Court's interpretations of the Bill of Rights over time.</li> <li>Students will construct arguments to support claims using valid reasoning and evidence in relation to Supreme Court rulings.</li> </ul> |                                                                                                         |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                | 單元/主題                                                                                                   |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 1 Foundations of American Democracy<br>Getting Started                                             |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 1 Foundations of American Democracy<br>Ideals of Democracy                                         |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 1 Foundations of American Democracy<br>The Constitution                                            |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 1 Foundations of American Democracy<br>Federalism in Action                                        |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 Civil Rights and Liberties<br>The Bill of Rights                                                 |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 Civil Rights and Liberties<br>The First Amendment - Freedom of Religion                          |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 Civil Rights and Liberties<br>First Amendment - Freedom of Speech                                |
|             | 八                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 2 Civil Rights and Liberties<br>First Amendment - Freedom of the Press                             |
|             | 九                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 3 Due Process<br>Selective Incorporation                                                           |
|             | 十                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit 3 Due Process<br>Due Process and the Rights of the Accused                                         |
|             | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit 4 The Legacy of the Warren Court & Contemporary Courts<br>Government Responses to Social Movements |
|             | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit 4 The Legacy of the Warren Court & Contemporary Courts<br>Affirmative Action                       |
|             | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit 4 The Legacy of the Warren Court & Contemporary Courts<br>Comparing SCOTUS Cases                   |
|             | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                      | Review<br>Questions and Discussions                                                                     |
|             | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                      | Final Project<br>Presentations & Feedback                                                               |
|             | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                      | Wrap-Up<br>Reflections & Final Thoughts                                                                 |
|             | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                         |
|             | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                         |
|             | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                         |

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|       | 二十                           |  |  |
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   |                              |  |  |

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|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 英文文學專題探究(下)                                                                                                                                                                                                                                                                                                                                                               |                                                 |                                                                                                                                                                                                                                                                                                    |
|         | 英文名稱： Studies in Literature                                                                                                                                                                                                                                                                                                                                                     |                                                 |                                                                                                                                                                                                                                                                                                    |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                                              |                                                 | 學分總數： 3                                                                                                                                                                                                                                                                                            |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                            |                                                 |                                                                                                                                                                                                                                                                                                    |
| 議題融入：   | 閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                       |                                                 |                                                                                                                                                                                                                                                                                                    |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                          |                                                 |                                                                                                                                                                                                                                                                                                    |
| 課綱核心素養： | A自主行動： A1.身心素質與自我精進,                                                                                                                                                                                                                                                                                                                                                            |                                                 |                                                                                                                                                                                                                                                                                                    |
|         | B溝通互動： B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                              |                                                 |                                                                                                                                                                                                                                                                                                    |
|         | C社會參與：                                                                                                                                                                                                                                                                                                                                                                          |                                                 |                                                                                                                                                                                                                                                                                                    |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                      |                                                 |                                                                                                                                                                                                                                                                                                    |
| 學習目標：   | This course is for students with a special interest in literature and literary criticism. The course may focus on themes, genres, time periods, or countries. You will analyze a range of forms and stylistic elements of literary texts and respond personally, critically, and creatively to them. You will also assess critical interpretations and write analytical essays. |                                                 |                                                                                                                                                                                                                                                                                                    |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                            | 單元/主題                                           | 內容綱要                                                                                                                                                                                                                                                                                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                               | Unit 3: Historical-biographical literary theory | Lesson 11: Historical-biographical literary theory and Tennyson's "The Lady of Shalott"<br>Students will use key concepts or approaches of literary criticism to help them analyze and interpret literary texts                                                                                    |
|         | 二                                                                                                                                                                                                                                                                                                                                                                               | Unit 3: Historical-biographical literary theory | Lesson 12: The Romantic interest in nature and "The Sublime"<br>Students will demonstrate an understanding of key concepts and specialized terms that are used in literary criticism                                                                                                               |
|         | 三                                                                                                                                                                                                                                                                                                                                                                               | Unit 3: Historical-biographical literary theory | Lesson 12: The Romantic interest in nature and "The Sublime"<br>Students will demonstrate an understanding of key concepts and specialized terms that are used in literary criticism                                                                                                               |
|         | 四                                                                                                                                                                                                                                                                                                                                                                               | Unit 3: Historical-biographical literary theory | Lesson 13: Biographical literary theory and the creation of the "Monster" in Frankenstein<br>Students will demonstrate an understanding of how an author's writing has been influenced by factors such as gender, time period, cultural background, and social and political conditions and events |
|         | 五                                                                                                                                                                                                                                                                                                                                                                               | Unit 3: Historical-biographical literary theory | Lesson 13: Biographical literary theory and the creation of the "Monster" in Frankenstein<br>Students will demonstrate an understanding of how an author's writing has been influenced by factors such as gender, time period, cultural background, and social and political conditions and events |
|         | 六                                                                                                                                                                                                                                                                                                                                                                               | Unit 3: Historical-biographical literary theory | Lesson 14: The theme of isolation in Frankenstein<br>Students will assess critical interpretati                                                                                                                                                                                                    |



|    |                                                 |                                                                                                                                                                                                                                                                                     |
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|    |                                                 | ons found in print and electronic sources and use those that seem most appropriate, helpful, or convincing to extend their understanding of specific works in the course                                                                                                            |
| 七  | Unit 3: Historical-biographical literary theory | Lesson 14: The theme of isolation in Frankenstein<br>Students will assess critical interpretations found in print and electronic sources and use those that seem most appropriate, helpful, or convincing to extend their understanding of specific works in the course             |
| 八  | Unit 3: Historical-biographical literary theory | Lesson 15: The outcast character as a true critic of society<br>Students will analyze texts to identify particular perspectives presented in them and the stylistic and/or structural means used to communicate those perspectives                                                  |
| 九  | Unit 4: A postmodernist approach to literature  | Lesson 15: The outcast character as a true critic of society<br>Students will analyze texts to identify particular perspectives presented in them and the stylistic and/or structural means used to communicate those perspectives                                                  |
| 十  | Unit 4: A postmodernist approach to literature  | Lesson 16: Postmodernism and chapter 1 of The French Lieutenant's Woman, a constructed text<br>Students will analyze texts in terms of how social, cultural, and political contexts and different readers' personal perspectives may influence readers' interpretations of the text |
| 十一 | Unit 4: A postmodernist approach to literature  | Lesson 17: Narrative viewpoint, metafiction, and The French Lieutenant's Woman<br>Students will compare peers' critical responses with their own to clarify and extend their understanding of literary texts                                                                        |
| 十二 | Unit 4: A postmodernist approach to literature  | Lesson 18: Representations of social class<br>Students will identify ways in which literary texts might promote social and personal change                                                                                                                                          |
| 十三 | Unit 4: A postmodernist approach to literature  | Lesson 18: Representations of social class<br>Students will identify ways in which literary texts might promote social and personal change                                                                                                                                          |
| 十四 | Unit 4: A postmodernist approach to literature  | Lesson 19: Deconstructing gender<br>Students will identify ways in which literary texts can promote readers' intellectual and imaginative growth                                                                                                                                    |
| 十五 | Unit 4: A postmodernist approach to literature  | Lesson 20: The multiple endings<br>Students will explain how their study of literature has enhanced their understanding of themselves as readers and as individuals                                                                                                                 |
| 十六 | Unit 4: A postmodernist approach to literature  | Lesson 20: The multiple endings<br>Students will explain how their study of literature has enhanced their understanding of themselves as readers and as individuals                                                                                                                 |

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|       | 十七                          |  |  |
|       | 十八                          |  |  |
|       | 十九                          |  |  |
|       | 二十                          |  |  |
|       | 二十一                         |  |  |
|       | 二十二                         |  |  |
|       |                             |  |  |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |  |  |
| 備註：   | 全英語授課                       |  |  |

【備查版】

【備查版】

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| 課程名稱：       | 中文名稱：英文作家作品分析與實作(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                            |
|             | 英文名稱：The Writer's Craft                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                            |
| 授課年段：       | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 學分總數：2                                                                                                                                                                                                                     |
| 課程屬性：       | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                            |
| 議題融入：       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                            |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                            |
| 課綱核心素<br>養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                            |
|             | B溝通互動：B1.符號運用與溝通表達, B3.藝術涵養與美感素養,                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                            |
|             | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                            |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                            |
| 學習目標：       | This course emphasizes knowledge and skills related to the craft of writing. Students will analyze models of effective writing; use a workshop approach to produce a range of works; identify and use techniques required for specialized forms of writing; and identify effective ways to improve the quality of their writing. They will also complete a major paper as part of a creative or analytical independent study project and investigate opportunities for publication and for writing careers. |                                                                                                                                                                                                                            |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 單元/主題                                                                                                                                                                                                                      |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3: Writing for truth: Non-fiction                                                                                                                                                                                     |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3: Writing for truth: Non-fiction                                                                                                                                                                                     |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3: Writing for truth: Non-fiction                                                                                                                                                                                     |
|             | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3: Writing for truth: Non-fiction                                                                                                                                                                                     |
|             | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3: Writing for truth: Non-fiction                                                                                                                                                                                     |
|             | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3: Writing for truth: Non-fiction                                                                                                                                                                                     |
|             | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit 3: Writing for truth: Non-fiction                                                                                                                                                                                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 內容綱要                                                                                                                                                                                                                       |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 11: Narrative non-fiction and biographical writing<br>Students will read a range of teacher- and self-selected models of effective writing to become familiar with the art, craft, and world of writing             |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 12: Persuasive non-fiction<br>Students will select and organize ideas and information to draft texts appropriate for the purpose and audience                                                                       |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 12: Persuasive non-fiction<br>Students will select and organize ideas and information to draft texts appropriate for the purpose and audience                                                                       |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 13: Expository and descriptive non-fiction<br>Students will use appropriate text forms and stylistic elements to communicate ideas and experiences effectively in their writing                                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 13: Expository and descriptive non-fiction<br>Students will use appropriate text forms and stylistic elements to communicate ideas and experiences effectively in their writing                                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 14: Journalism: Hard news<br>Students will generate and explore ideas for potential writing projects collaboratively through brainstorming and other discussions with a partner or as a group in a workshop setting |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lesson 14: Journalism: Hard news<br>Students will generate and explore ideas for potential writing projects collaboratively through brainstorming and other discussions with a partner or as a group in a workshop setting |

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|     |                                        | sions with a partner or as a group in a workshop setting                                                                                                                                                        |
| 八   | Unit 3: Writing for truth: Non-fiction | Lesson 15: Journalism: Soft news<br>Students will produce polished written work, using a variety of effective presentation features appropriate for the purpose and intended audience                           |
| 九   | Unit 4: Writing for a living           | Lesson 16: Writing for TV and film<br>Students will research a variety of opportunities and/or careers in writing-related fields, and identify the skills needed to pursue them                                 |
| 十   | Unit 4: Writing for a living           | Lesson 17: Best song ever<br>Students will explain how their own beliefs, values, and experiences are revealed in their writing                                                                                 |
| 十一  | Unit 4: Writing for a living           | Lesson 18: Graphic storytelling<br>Students will identify their areas of strength and weakness as writers, and the steps they can take to improve their own writing                                             |
| 十二  | Unit 4: Writing for a living           | Lesson 18: Graphic storytelling<br>Students will identify their areas of strength and weakness as writers, and the steps they can take to improve their own writing                                             |
| 十三  | Unit 4: Writing for a living           | Lesson 19: Bringing it all together<br>Students will edit and proofread their written work, applying the conventions of spelling, usage, punctuation, and grammar appropriately and effectively                 |
| 十四  | Unit 4: Writing for a living           | Lesson 19: Bringing it all together<br>Students will edit and proofread their written work, applying the conventions of spelling, usage, punctuation, and grammar appropriately and effectively                 |
| 十五  | Unit 4: Writing for a living           | Lesson 20: Polishing, perfecting and submitting your work<br>Students will revise drafts by reviewing and refining content, form, and stylistic elements to produce clear, coherent, and effective written work |
| 十六  | Unit 4: Writing for a living           | Lesson 20: Polishing, perfecting and submitting your work<br>Students will revise drafts by reviewing and refining content, form, and stylistic elements to produce clear, coherent, and effective written work |
| 十七  |                                        |                                                                                                                                                                                                                 |
| 十八  |                                        |                                                                                                                                                                                                                 |
| 十九  |                                        |                                                                                                                                                                                                                 |
| 二十  |                                        |                                                                                                                                                                                                                 |
| 二十一 |                                        |                                                                                                                                                                                                                 |
| 二十二 |                                        |                                                                                                                                                                                                                 |

學習評量： 課堂互動(15%)、作業(70%)、專題報告(15%)

【備查版】

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：音樂創作與作詞                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|             | 英文名稱：Music Composition and Songwriting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 授課年段：       | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 學分總數：2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 課程屬性：       | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 議題融入：       | 多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 課綱核心素<br>養： | A自主行動：A3. 規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|             | B溝通互動：B1. 符號運用與溝通表達，B2. 科技資訊與媒體素養，B3. 藝術涵養與美感素養，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|             | C社會參與：C2. 人際關係與團隊合作，C3. 多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 學生圖像：       | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3. 個性完善：愛心熱誠、誠信正直、自律自省。， 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 學習目標：       | <p>Share live or recorded performances of works and explain how the elements of music are used to convey intent.</p> <p>Analyze, aurally and by reading scores, compositional techniques and procedures, relating them to aesthetic effectiveness, style, mood, and context; and explain how the analysis provides models for personal growth as composer, performer, and/or listener.</p> <p>Describe the given context and performance medium for presenting personal works, and how they impact the final composition and presentation.</p> <p>Describe the technical and expressive aspects of selected music and performances, demonstrating understanding of fundamentals of music theory.</p> <p>Apply personally-developed criteria to select music that expresses personal experiences and interests, moods, visual images, concepts, texts, or storylines in simple or moderately complex forms, and describe and defend the choices as models for composition.</p> <p>Identify and implement strategies for improving the technical and expressive aspects of multi</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 教學大綱：       | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 單元/主題                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|             | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Overview                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|             | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit 1: Creating with Sound                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|             | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit 1: Creating with Sound                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Understand the rules and policies of the course, and expectations of you as a contributing member of our learning community</p> <p>Begin to build community by sharing important information with your teacher and classmates about yourself and your school, and creating a social contract together for guidelines on interacting throughout the class</p> <p>Develop your skills for navigating the course environment and using the various course tools</p> <p>Demonstrate rhythm notation skills through rhythm composition</p> <p>Improvisation</p> <p>Improvise and write melodies using a blues scale</p> <p>Discern between melody and harmony in musical compositions</p> <p>Notate pitches in the treble clef</p> <p>Major Scales and Keys</p> <p>Notate scales and key signatures in major keys</p> <p>Compose major melodies in the call-and-response form</p> |

|    |                                         |                                                                                                                                                                       |
|----|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 四  | Unit 1: Creating with Sound             | Minor Scales and Keys<br>Notate scales and key signatures in minor keys<br>Compose minor melodies in question-and-answer form                                         |
| 五  | Unit 1: Creating with Sound             | Chords<br>Notate triads<br>Analyze harmonies<br>Compose a harmony based on a given chord progression and melody                                                       |
| 六  | Unit 2: Creating with Elements of Music | Melody<br>Analyze melodies through notation and aural analysis<br>Compose a melody                                                                                    |
| 七  | Unit 2: Creating with Elements of Music | Harmony<br>Analyze chord progressions<br>Compose a chord progression and harmony                                                                                      |
| 八  | Unit 2: Creating with Elements of Music | Timbre and Texture<br>Analyze musical textures<br>Identify diverse instrumentation choices<br>Orchestrate a composition                                               |
| 九  | Unit 2: Creating with Elements of Music | Text and Theme<br>Analyze themes and motifs in programmatic music<br>Analyze lyrics<br>Add lyrics or thematic motifs to a composition                                 |
| 十  | Unit 2: Creating with Elements of Music | Form<br>Analyze musical form<br>Identify musical symbols and expressive markings<br>Compose music in a complete form with comprehensive markings                      |
| 十一 | Unit3: Capstone Composition             | Plan<br>Plan a Capstone Composition<br>Prepare a score for the Capstone Composition<br>Communicate composer's intent to peers                                         |
| 十二 | Unit3: Capstone Composition             | Create<br>Notate rhythmic, melodic, and harmonic ideas within a planned musical form<br>Integrate intended expressive elements of music into the Capstone Composition |
| 十三 | Unit3: Capstone Composition             | Create<br>Notate rhythmic, melodic, and harmonic ideas within a planned musical form<br>Integrate intended expressive elements of music into the Capstone Composition |
| 十四 | Unit3: Capstone Composition             | Refine<br>Implement peer feedback to refine the Capstone Composition<br>Finalize Capstone Composition                                                                 |
| 十五 | Unit3: Capstone Composition             | Present<br>Choose a medium to present the Capstone Composition<br>Make informed choices about intellectual property and publicity                                     |



|       |                              |                             |                                                                                                                                   |
|-------|------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|       | 十六                           | Unit3: Capstone Composition | Present<br>Choose a medium to present the Capstone Composition<br>Make informed choices about intellectual property and publicity |
|       | 十七                           | Unit3: Capstone Composition | Reflect<br>Respond to peers' compositions<br>Reflect on musical growth                                                            |
|       | 十八                           | Unit3: Capstone Composition | Reflect<br>Respond to peers' compositions<br>Reflect on musical growth                                                            |
|       | 十九                           |                             |                                                                                                                                   |
|       | 二十                           |                             |                                                                                                                                   |
|       | 二十一                          |                             |                                                                                                                                   |
|       | 二十二                          |                             |                                                                                                                                   |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                             |                                                                                                                                   |
| 備註：   | 全英授課                         |                             |                                                                                                                                   |

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|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 課程名稱：   | 中文名稱：哲學思辨                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |
|         | 英文名稱：Philosophy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 學分總數：3                                 |
| 課程屬性：   | 通識性課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| 議題融入：   | 人權、品德、生命、法治、閱讀素養、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| 師資來源：   | 外聘(大學)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                        |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                        |
|         | C社會參與：C1.道德實踐與公民意識, C3.多元文化與國際理解,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                        |
| 學習目標：   | <ul style="list-style-type: none"> <li>• To be progressively aware of the specific characteristics of philosophy and to recognize the specific contributions of philosophy to the development of a critical, methodical and responsible way of thinking.</li> <li>• To use philosophical concepts and develop a conceptual and critical kind of reasoning.</li> <li>• To learn to read philosophical texts and understand their basic arguments.</li> <li>• To express and formulate ideas in a clear and argumentative way and to demonstrate respect for others ideas.</li> <li>• To appreciate how philosophy contributes to the political and cultural institutions of our contemporary world and to apply philosophical ideas and arguments to values into one's own life.</li> </ul> |                                        |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                  |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Philosophy?                            |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Why Philosophy?                        |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | A little bit of Logic                  |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The first Metaphysicians               |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The Last Days of Socrates              |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | What is reality?                       |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | What is knowledge? How far can we know |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | What is knowledge? How far can we know |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Who are we? Are we alone?              |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Who are we? Are we alone?              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |

|  |     |                                    |                                                                                                                         |
|--|-----|------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
|  | 十一  | How should we live?                | Menu of ethical perspectives<br>Plato                                                                                   |
|  | 十二  | How should we live?                | The Divine Command Theory<br>Aristotle<br>Kant                                                                          |
|  | 十三  | How can we live together?          | Political philosophy<br>Individual and group interests: the best form of government<br>Civil disobedience and terrorism |
|  | 十四  | A touch of Art and Beauty          | What is art?<br>What for?                                                                                               |
|  | 十五  | My philosophy                      | Philosopher of the Year<br>Philosophy and I                                                                             |
|  | 十六  | Wrap-up                            | Letter to future philosophers                                                                                           |
|  | 十七  |                                    |                                                                                                                         |
|  | 十八  |                                    |                                                                                                                         |
|  | 十九  |                                    |                                                                                                                         |
|  | 二十  |                                    |                                                                                                                         |
|  | 二十一 |                                    |                                                                                                                         |
|  | 二十二 |                                    |                                                                                                                         |
|  |     | 學習評量： 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                                                                                         |
|  |     | 備註：                                |                                                                                                                         |

|             |                                                                       |         |                  |
|-------------|-----------------------------------------------------------------------|---------|------------------|
| 課程名稱：       | 中文名稱： 航太工程概論(下)                                                       |         |                  |
|             | 英文名稱： Introduction To Aeronautical                                    |         |                  |
| 授課年段：       | 三下                                                                    | 學分總數： 2 |                  |
| 課程屬性：       | 跨領域/科目統整                                                              |         |                  |
| 議題融入：       | 科技、資訊、閱讀素養                                                            |         |                  |
| 師資來源：       | 外聘(其他)                                                                |         |                  |
| 課綱核心素<br>養： | A自主行動： A1.身心素質與自我精進, A2.系統思考與問題解決,                                    |         |                  |
|             | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                    |         |                  |
|             | C社會參與： C2.人際關係與團隊合作,                                                  |         |                  |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , |         |                  |
| 學習目標：       | 對於航太工程以深入淺出的廣泛介紹，以期學生對於航太工程各領域都有相當程度的了解。課程特別強調：航空工程各氣動力學的原理與實際運用。     |         |                  |
| 教學大綱：       | 週次/<br>序                                                              | 單元/主題   | 內容綱要             |
|             | 一                                                                     | 飛機的導航   | 飛機的導航方式介紹        |
|             | 二                                                                     | 飛機的導航   | 飛機的導航原理          |
|             | 三                                                                     | 飛具結構    | 飛具結構分析           |
|             | 四                                                                     | 飛具結構    | 飛具結構設計           |
|             | 五                                                                     | 飛機動力系統  | 動力來源與理論          |
|             | 六                                                                     | 飛機動力系統  | 飛機動力系統的設計原理      |
|             | 七                                                                     | 飛行器材料   | 飛行器材料的發展現況       |
|             | 八                                                                     | 飛行器材料   | 飛行器材料的未來展望       |
|             | 九                                                                     | 風洞      | 風洞的發展歷史          |
|             | 十                                                                     | 風洞      | 風洞的設計原理介紹        |
|             | 十一                                                                    | 校外學習週   | (參觀國家太空中心)       |
|             | 十二                                                                    | 飛機的適航驗證 | 飛機的安全驗證          |
|             | 十三                                                                    | 飛機的適航驗證 | 飛機的適航驗證的現況與發展    |
|             | 十四                                                                    | 高速航行及展望 | 音速與超音速飛行的介紹      |
|             | 十五                                                                    | 太空科學的發展 | 太空載具的發展          |
|             | 十六                                                                    | 實作      | 牽引與橡皮筋動力滑翔機設計與製造 |
|             | 十七                                                                    |         |                  |
|             | 十八                                                                    |         |                  |
|             | 十九                                                                    |         |                  |
|             | 二十                                                                    |         |                  |
|             | 二十一                                                                   |         |                  |
|             | 二十二                                                                   |         |                  |
| 學習評量：       | 平時（課堂討論、發言）40%，期中考(簡報)30%，期末考(手擲機製作)30%                               |         |                  |
| 備註：         | 參考書籍：飛行工程概論(修訂版) 夏樹仁 全華圖書                                             |         |                  |

|             |                                                                     |           |               |
|-------------|---------------------------------------------------------------------|-----------|---------------|
| 課程名稱：       | 中文名稱： 財經理論                                                          |           |               |
|             | 英文名稱： Introduction to Finance and Economics                         |           |               |
| 授課年段：       | 三下                                                                  |           | 學分總數： 2       |
| 課程屬性：       | 跨領域/科目統整                                                            |           |               |
| 議題融入：       | 性別平等、人權、品德、資訊、家庭教育、生涯規劃                                             |           |               |
| 師資來源：       | 校內單科                                                                |           |               |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決,                                                |           |               |
|             | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                  |           |               |
|             | C社會參與： C2.人際關係與團隊合作,                                                |           |               |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。, |           |               |
| 學習目標：       | 1. 了解經濟知識在現代社會重要性<br>2. 了解經濟學的意義與演進<br>3. 消費者行為                     |           |               |
| 教學大綱：       | 週次/<br>序                                                            | 單元/主題     | 內容綱要          |
|             | 一                                                                   | 緒論        | 經濟知識在現代社會重要性  |
|             | 二                                                                   | 緒論        | 經濟資源配置        |
|             | 三                                                                   | 供給與需求     | 供給彈性          |
|             | 四                                                                   | 個體經濟學概論   | 需求彈性          |
|             | 五                                                                   | 供給與需求     | 市場均衡          |
|             | 六                                                                   | 消費者行為     | 慾望與消費         |
|             | 七                                                                   | 觀念總整理(一)  | 觀念總整理(一)      |
|             | 八                                                                   | 學期作品製作    | 尋找主題          |
|             | 九                                                                   | 學期作品製作    | 完成第一版定稿       |
|             | 十                                                                   | 國際金融      | 資產負債表平衡       |
|             | 十一                                                                  | 經濟局勢探討(一) | 學習與分析         |
|             | 十二                                                                  | 經濟局勢探討(二) | 機會與困境         |
|             | 十三                                                                  | 經濟局勢探討(三) | 決策            |
|             | 十四                                                                  | 觀念總整理(二)  | 觀念總整理(二)      |
|             | 十五                                                                  | 學期作品製作    | 製作            |
|             | 十六                                                                  | 學期作品製作    | 總結分析,並請學生上台分享 |
|             | 十七                                                                  |           |               |
|             | 十八                                                                  |           |               |
|             | 十九                                                                  |           |               |
|             | 二十                                                                  |           |               |
|             | 二十一                                                                 |           |               |
|             | 二十二                                                                 |           |               |
| 學習評量：       | 1.口語評量（分組報告）40%<br>2.檔案評量（書面報告） 20%<br>3.實作評量 20%<br>4.態度20%        |           |               |
| 備註：         |                                                                     |           |               |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                   |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱： 商用微積分                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                   |
|         | 英文名稱： Calculus and Vectors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                   |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 學分總數： 3                                                                                           |
| 課程屬性：   | 專題探究                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                   |
| 議題融入：   | 生命、資訊                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                   |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                   |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                   |
|         | B溝通互動： B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                   |
|         | C社會參與：                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                   |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                   |
| 學習目標：   | <p>To build on previous experience with functions and develop understanding of rates of change.</p> <p>To solve problems involving geometric and algebraic representations of vectors and representations of lines and planes in three-dimensional space; broaden Understanding of rates of change to include the derivatives of polynomial, sinusoidal, exponential, rational, and radical functions; and apply these concepts and skills to the modelling of real-world relationships.</p> <p>To prepare for careers in fields such as science, engineering, economics, and some areas of business.</p> |                                                                                                   |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 單元/主題                                                                                             |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Rates of change and derivatives Part A                                                    |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 1: Rates of change and derivatives Part A                                                    |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2: Rates of change and derivatives - Part B                                                  |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 2: Rates of change and derivatives - Part B                                                  |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3: Exploring derivatives - Part A                                                            |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3: Exploring derivatives - Part A                                                            |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 3: Exploring derivatives - Part A                                                            |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 4: Exploring derivatives - Part B                                                            |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 5: Applying derivatives and introduction to vectors                                          |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit 5: Applying derivatives and introduction to vectors                                          |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 5: Applying derivatives and introduction to vectors                                          |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit 5: Applying derivatives and introduction to vectors                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 內容綱要                                                                                              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Introduction to the course<br>Lesson 1: Rates of change                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Introduction to the course<br>Lesson 1: Rates of change                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 2: Limits                                                                                  |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 3: Introduction to curve sketching                                                         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 4: Derivatives<br>Lesson 5: The rules of derivatives                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 6: Exponential functions and their derivatives                                             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 7: Derivatives of sinusoidal, radical, and rational functions                              |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 8: The second derivative: A graphical look                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 9: Curve sketching: Polynomial functions<br>Lesson 10: Curve sketching: Rational functions |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 11: Real-world applications of derivatives<br>Lesson 12: Optimization problems             |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 13: Introduction to vectors                                                                |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 14: Three-dimensional vectors and operations on vectors                                    |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lesson 15: Properties of vectors and scalar multiplication                                        |

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|-----|-------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------|
|     | 十三                                  | Unit 6: Lines and planes - Part A | Lesson 16: Dot product and cross product of two vectors<br>Lesson 17: Applications of vector multiplication |
|     | 十四                                  | Unit 6: Lines and planes - Part A | Lesson 18: Lines and planes                                                                                 |
|     | 十五                                  | Unit 7: Lines and planes - Part B | Lesson 19: Scalar, vector, and parametric equations                                                         |
|     | 十六                                  | Unit 7: Lines and planes - Part B | Lesson 20: Intersections of lines and planes in 3-space                                                     |
|     | 十七                                  |                                   |                                                                                                             |
|     | 十八                                  |                                   |                                                                                                             |
|     | 十九                                  |                                   |                                                                                                             |
|     | 二十                                  |                                   |                                                                                                             |
|     | 二十一                                 |                                   |                                                                                                             |
|     | 二十二                                 |                                   |                                                                                                             |
|     | 學習評量： 課堂表現30% 回家作業30% 期中考20% 期末考20% |                                   |                                                                                                             |
| 備註： |                                     |                                   |                                                                                                             |

【備查版】



|         |                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 課程名稱：   | 中文名稱：商業溝通與科技(下)                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |
|         | 英文名稱：Business and Technological Communication II                                                                                                                                                                                                                                                                                                                                                                                      |                            |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                    | 學分總數：3                     |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |
| 議題融入：   | 科技、生涯規劃、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                      |                            |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                                                                                      |                            |
|         | C社會參與：C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                      |                            |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                       |                            |
| 學習目標：   | This course emphasizes practical writing and communication skills that are needed in the world of business and technology. You will analyze the characteristics of effective models of business and technical communications; gather information to write reports, business letters, memos, manuals, instructions, and brochures; and integrate graphics and text, using technology appropriately for formatting and special effects. |                            |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                  | 單元/主題                      |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Oral communication  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Oral communication  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Oral communication  |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Oral communication  |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 3 Oral communication  |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                     | Review                     |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 4 Informational texts |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 4 Informational texts |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 4 Informational texts |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit 4 Informational texts |
|         | 十一                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit 4 Informational texts |
|         | 十二                                                                                                                                                                                                                                                                                                                                                                                                                                    | Review                     |
|         | 十三                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Project              |
|         | 十四                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Project              |
|         | 十五                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Project              |
|         | 十六                                                                                                                                                                                                                                                                                                                                                                                                                                    | Wrap-Up                    |
|         | 十七                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |
|         | 十八                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |
|         | 十九                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |
|         | 二十                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |
|         | 二十一                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |
|         | 二十二                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |
| 學習評量：   | 40% 課堂參與討論、30% 回家作業、30% 專題報告                                                                                                                                                                                                                                                                                                                                                                                                          |                            |
| 備註：     | 全英文授課                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |

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|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：商業領導管理概論(下)                                                                                                                                                                                                                                                                                                                                                                           |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
|         | 英文名稱：Business Leadership: Management Fundamentals                                                                                                                                                                                                                                                                                                                                          |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
| 授課年段：   | 三下 學分總數：3                                                                                                                                                                                                                                                                                                                                                                                  |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                       |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
| 議題融入：   | 生命、資訊、閱讀素養                                                                                                                                                                                                                                                                                                                                                                                 |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                     |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                           |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
|         | B溝通互動：B1.符號運用與溝通表達，                                                                                                                                                                                                                                                                                                                                                                        |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                              |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                            |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
| 學習目標：   | This course focuses on the development of leadership skills used in managing a successful business. You will analyze the role of a leader in business with a focus on decision-making, management of group dynamics, workplace stress and conflict, motivation of employees, and planning. Effective business communication skills, ethics, and social responsibility are also emphasized. |                                                                              |                                                                                                                                                                                                                                                                                                                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                       | 單元/主題                                                                        | 內容綱要                                                                                                                                                                                                                                                                                                                                |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                          | Unit 3: Leadership, motivation, and human behavior Lesson 11: Human behavior | Analyzing the elements that shape human personality (e.g., cultural, social, and family influences) and their impact on human behavior; explaining the relationship between job satisfaction and an individual's personality, attitudes, and perceptions                                                                            |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 11: Human behavior                                                    | Explaining the relationship between a person's attitude (e.g., commitment to job, personal biases) and her or his behavior in the workplace (e.g., quality of performance, absenteeism; evaluating the use of personality traits assessment instruments in the workplace (e.g., Myers-Briggs, True Colors, Emotional Intelligence). |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 12: Group dynamics                                                    | Analyzing the stages of group development (forming, storming, norming, performing, and adjourning) and the roles individuals assume within a group structure; looking at the nature and types of groups within an organization (e.g., formal/ informal, committees/departments, electronic work groups)                             |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 12: Group dynamics                                                    | Analyzing the factors that contribute to the success or failure of a team (e.g., shared norms, cohesiveness, cultural expectations, social loafing)                                                                                                                                                                                 |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 12: Group dynamics                                                    | Applying business teamwork skills to carry out projects and solve problems                                                                                                                                                                                                                                                          |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 12: Group dynamics                                                    | Applying business teamwork skills to carry out projects and solve problems                                                                                                                                                                                                                                                          |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                          | Lesson 13: Characteristics of effective leaders                              | Analyzing the characteristics of effective leaders (e.g., integrity, drive, vision, commitment to equity and diversity in the workplace)                                                                                                                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                            |                                                                              |                                                                                                                                                                                                                                                                                                                                     |

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| 八  | Lesson 14:Motivation Lesson 14: Motivation Lesson 14:Motivation Lesson 14:Motivation Lesson 14:Motivation | Explaining how various theories of motivation (e.g., the theories of Maslow, Herzberg, Alderfer, McClelland; goal-setting theory) contribute to an understanding of individual needs, productivity, and performance                                                                                                                                                                                                                        |
| 九  | Lesson 14:Motivation                                                                                      | Analyzing the various motivational strategies used by particular organizations; explaining the relationship between motivation, rewards, and job performance.                                                                                                                                                                                                                                                                              |
| 十  | Lesson 15:Leadership styles and theories                                                                  | Comparing a variety of contemporary leadership theories (e.g., Leadership Grid, contingency, transactional, transformational, and servant theories); comparing different leadership styles (e.g., democratic, autocratic, laissez-faire, collaborative) and describe how these styles are exemplified by a variety of business leaders                                                                                                     |
| 十一 | Unit 4: Management challenges                                                                             | Discussion                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 十二 | Lesson 16: Managing stress and conflict                                                                   | Evaluating the impact of personal and work-related stress on performance; describing the factors that contribute to stress and conflict in the workplace (e.g., working conditions, difficult bosses or co-workers, restructuring; evaluating conflict-management styles (e.g., collaboration, avoidance, accommodation, compromise) and their impact on a situation                                                                       |
| 十三 | Lesson 17: Managing change                                                                                | Analyzing the reasons for various attitudes towards change (e.g., why individuals fear change, why individuals embrace change); evaluating different strategies used by managers to bring about acceptance of planned change (e.g., education, shared power, negotiation)                                                                                                                                                                  |
| 十四 | Lesson 18: Controlling                                                                                    | Describing the steps in the control process and how they relate to the managerial process of leading, planning, and organizing; explaining the three types of control systems used by organizations (feedforward, concurrent, feedback)                                                                                                                                                                                                    |
| 十五 | Lesson 19: Ethics and social responsibility                                                               | Explaining the nature of corporate ethical and social responsibility and analyze, on the basis of research, including stakeholder analysis, a particular company's commitment to it (e.g., in relation to non-discriminatory hiring, promotion, and retention practices; implementing the Persons with Disabilities Act and the Accessibility for Ontarians with Disabilities Act; environmental issues; customer/supplier relationships). |
| 十六 | Lesson 19: Ethics and social responsibility Lesson 20: A case study                                       | Applying theories and knowledge learned to carry out case study analysis                                                                                                                                                                                                                                                                                                                                                                   |
| 十七 |                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 十八 |                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 十九 |                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|       |                             |  |  |
|-------|-----------------------------|--|--|
|       | 二十                          |  |  |
|       | 二十一                         |  |  |
|       | 二十二                         |  |  |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%) |  |  |
| 備註：   | 全英語授課                       |  |  |

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| 課程名稱：   | 中文名稱：國際商業概論(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                     |
|         | 英文名稱：International Business Fundamentals                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                     |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 學分總數：3                                                                                              |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                     |
| 議題融入：   | 法治、資訊、多元文化、國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                     |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                     |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                     |
|         | B溝通互動：B1.符號運用與溝通表達，                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                     |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                     |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                                                                                                                                                          |                                                                                                     |
| 學習目標：   | This course provides an overview of the importance of international business and trade in the global economy and explores the factors that influence success in international markets. You will learn about the techniques and strategies associated with marketing, distribution, and managing international business effectively. This course prepares you for postsecondary programs in business, including international business, marketing, and management. |                                                                                                     |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 單元/主題                                                                                               |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 5 How can a business succeed internationally? What is Taiwan's role in international business? |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | The impact of culture on international business                                                     |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Look before you leap into a new market                                                              |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Getting your product from here to there                                                             |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How do I market my product internationally?                                                         |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How do I market my product internationally?                                                         |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Revision                                                                                            |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit 6: What is ethical business? – Part A Work environments in international markets               |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A tool for cultural understanding                                                                   |
|         | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A tool for cultural understanding                                                                   |

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|       |                                                                   | esolution, mediation, collective bargaining, strike action)                                                                                                                                                                                                        |
| 十一    | Revision                                                          | Questions and discussions                                                                                                                                                                                                                                          |
| 十二    | Unit 7: What is ethical businesses? - Part B International travel | Looking at the process for crossing international borders as it relates to international business                                                                                                                                                                  |
| 十三    | How do ethics affect international trade?                         | Analyzing the ways in which ethical considerations affect international business decisions;                                                                                                                                                                        |
| 十四    | How do ethics affect international trade?                         | Analyzing the ways in which international development agencies (e.g., United Nations organizations, World Health Organization) and non-governmental organizations (e.g., Greenpeace, World Safety Organization) promote economic progress in developing countries. |
| 十五    | Revision                                                          | Questions and discussions                                                                                                                                                                                                                                          |
| 十六    | Final project- A case study                                       | Final project sharing and feedback                                                                                                                                                                                                                                 |
| 十七    | Final project- A case study                                       | Final project sharing and feedback                                                                                                                                                                                                                                 |
| 十八    | Course wrap-up                                                    | Feedback and reflection                                                                                                                                                                                                                                            |
| 十九    |                                                                   |                                                                                                                                                                                                                                                                    |
| 二十    |                                                                   |                                                                                                                                                                                                                                                                    |
| 二十一   |                                                                   |                                                                                                                                                                                                                                                                    |
| 二十二   |                                                                   |                                                                                                                                                                                                                                                                    |
| 學習評量： | 課堂互動(15%)、作業(70%)、專題報告(15%)                                       |                                                                                                                                                                                                                                                                    |
| 備註：   | 全英語授課                                                             |                                                                                                                                                                                                                                                                    |

|         |                                                                                                                                                                                                                                                                                                                                                               |                          |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 課程名稱：   | 中文名稱：國際議題研究IV                                                                                                                                                                                                                                                                                                                                                 |                          |
|         | 英文名稱：Global Issues IV                                                                                                                                                                                                                                                                                                                                         |                          |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                            | 學分總數：1                   |
| 課程屬性：   | 通識性課程                                                                                                                                                                                                                                                                                                                                                         |                          |
| 議題融入：   | 能源、多元文化                                                                                                                                                                                                                                                                                                                                                       |                          |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                        |                          |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，                                                                                                                                                                                                                                                                                                                                           |                          |
|         | B溝通互動：B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                                                                                                           |                          |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                                                                                                 |                          |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                                                                                                                               |                          |
| 學習目標：   | Global Issues embraces a multidisciplinary approach in understanding the increasingly complex questions confronting the world today. Understanding global problems is the initial stage towards conceiving globalized solutions. This course capitalizes and centers on the privileged position of the youth in their ability to passion a better generation. |                          |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                          | 單元/主題                    |
|         | 一                                                                                                                                                                                                                                                                                                                                                             | Unit 1 New Technologies  |
|         | 二                                                                                                                                                                                                                                                                                                                                                             | Unit 1 New Technologies  |
|         | 三                                                                                                                                                                                                                                                                                                                                                             | Unit 2 National Identity |
|         | 四                                                                                                                                                                                                                                                                                                                                                             | Unit 2 National Identity |
|         | 五                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Body Image        |
|         | 六                                                                                                                                                                                                                                                                                                                                                             | Unit 3 Body Image        |
|         | 七                                                                                                                                                                                                                                                                                                                                                             | Unit 4 Family Roles      |
|         | 八                                                                                                                                                                                                                                                                                                                                                             | Unit 4 Family Roles      |
|         | 九                                                                                                                                                                                                                                                                                                                                                             | Unit 5 Disease           |
|         | 十                                                                                                                                                                                                                                                                                                                                                             | Unit 5 Disease           |
|         | 十一                                                                                                                                                                                                                                                                                                                                                            | Unit 5 Disease           |
|         | 十二                                                                                                                                                                                                                                                                                                                                                            | Unit 6 Commemoration     |
|         | 十三                                                                                                                                                                                                                                                                                                                                                            | Unit 6 Commemoration     |
|         | 十四                                                                                                                                                                                                                                                                                                                                                            | Final Project            |
|         | 十五                                                                                                                                                                                                                                                                                                                                                            | Final Project            |
|         | 十六                                                                                                                                                                                                                                                                                                                                                            | Wrap-Up                  |
|         | 十七                                                                                                                                                                                                                                                                                                                                                            |                          |
|         | 十八                                                                                                                                                                                                                                                                                                                                                            |                          |
|         | 十九                                                                                                                                                                                                                                                                                                                                                            |                          |



|       |                              |  |  |
|-------|------------------------------|--|--|
|       | 二十                           |  |  |
|       | 二十一                          |  |  |
|       | 二十二                          |  |  |
|       |                              |  |  |
| 學習評量： | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |  |  |
| 備註：   | 全英語授課                        |  |  |

【備 查 版】

|         |                                                                                                                                 |                        |
|---------|---------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 課程名稱：   | 中文名稱：創作性舞蹈                                                                                                                      |                        |
|         | 英文名稱：Creative Dance                                                                                                             |                        |
| 授課年段：   | 三下                                                                                                                              | 學分總數：1                 |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                                     |                        |
| 議題融入：   | 性別平等、品德、多元文化                                                                                                                    |                        |
| 師資來源：   | 外聘(其他)                                                                                                                          |                        |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A3.規劃執行與創新應變，                                                                                                |                        |
|         | B溝通互動：B3.藝術涵養與美感素養，                                                                                                             |                        |
|         | C社會參與：C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                |                        |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                        |
| 學習目標：   | 1完成國際標準舞蹈-恰恰、捷舞、華爾滋三項<br>2學習男女互相尊重與包容<br>3學習國際禮儀                                                                                |                        |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題                  |
|         | 一                                                                                                                               | 放鬆與呼吸                  |
|         | 二                                                                                                                               | 核心肌群應用、舞蹈禮儀            |
|         | 三                                                                                                                               | Latin Dance-Cha Cha恰恰  |
|         | 四                                                                                                                               | Latin Dance-Cha Cha恰恰  |
|         | 五                                                                                                                               | Latin Dance-Cha Cha恰恰  |
|         | 六                                                                                                                               | Latin Dance-Cha Cha恰恰  |
|         | 七                                                                                                                               | Latin Dance-Jive捷舞     |
|         | 八                                                                                                                               | Latin Dance-Jive捷舞     |
|         | 九                                                                                                                               | Latin Dance-Jive捷舞     |
|         | 十                                                                                                                               | Latin Dance-Jive捷舞     |
|         | 十一                                                                                                                              | Standard-Waltz華爾滋      |
|         | 十二                                                                                                                              | Standard-Waltz華爾滋      |
|         | 十三                                                                                                                              | Standard-Waltz華爾滋      |
|         | 十四                                                                                                                              | Standard-Waltz華爾滋      |
|         | 十五                                                                                                                              | 舞會表演籌辦與禮儀              |
|         | 十六                                                                                                                              | 舞蹈表演應用與實作              |
|         | 十七                                                                                                                              |                        |
|         | 十八                                                                                                                              |                        |
|         | 十九                                                                                                                              |                        |
|         | 二十                                                                                                                              |                        |
|         |                                                                                                                                 | 內容綱要                   |
|         |                                                                                                                                 | 身體放鬆技巧與肢體空間掌握。         |
|         |                                                                                                                                 | 學習身體肌肉使用，以及學習國際標準舞蹈禮儀。 |
|         |                                                                                                                                 | 學習恰恰舞步-基本步、紐約步、手下轉、三恰恰 |
|         |                                                                                                                                 | 學習恰恰舞步-基本步、紐約步、手下轉、三恰恰 |
|         |                                                                                                                                 | 學習恰恰舞步-基本步、紐約步、手下轉、三恰恰 |
|         |                                                                                                                                 | 學習恰恰舞步-基本步、紐約步、手下轉、三恰恰 |
|         |                                                                                                                                 | 學習恰恰舞步-基本步、紐約步、手下轉、三恰恰 |
|         |                                                                                                                                 | 學習恰恰舞步-基本步、紐約步、手下轉、三恰恰 |
|         |                                                                                                                                 | 學習恰恰舞步-基本步、紐約步、手下轉、三恰恰 |
|         |                                                                                                                                 | 學習華爾滋舞步-基本步、交叉步、抑制步、旋轉 |
|         |                                                                                                                                 | 學習華爾滋舞步-基本步、交叉步、抑制步、旋轉 |
|         |                                                                                                                                 | 學習華爾滋舞步-基本步、交叉步、抑制步、旋轉 |
|         |                                                                                                                                 | 學習華爾滋舞步-基本步、交叉步、抑制步、旋轉 |
|         |                                                                                                                                 | 舞會中的禮儀，以及籌辦舞會技巧        |
|         |                                                                                                                                 | 模擬舞會，進行學生實作訓練          |

|       |                    |  |  |
|-------|--------------------|--|--|
|       | 二十一                |  |  |
|       | 二十二                |  |  |
| 學習評量： | 課堂參與60%<br>舞蹈實作40% |  |  |
| 備註：   |                    |  |  |

【備查版】

|         |                                                                                                                                 |              |                          |
|---------|---------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------|
| 課程名稱：   | 中文名稱：微積分(下)                                                                                                                     |              |                          |
|         | 英文名稱：Calculus                                                                                                                   |              |                          |
| 授課年段：   | 三下                                                                                                                              | 學分總數：2       |                          |
| 課程屬性：   | 專題探究                                                                                                                            |              |                          |
| 議題融入：   | 科技、資訊、閱讀素養、國際教育                                                                                                                 |              |                          |
| 師資來源：   | 校內單科                                                                                                                            |              |                          |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，                                                                                                             |              |                          |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                |              |                          |
|         | C社會參與：C2.人際關係與團隊合作，                                                                                                             |              |                          |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |              |                          |
| 學習目標：   | 能學會微積分的基本知識，以銜接未來大學所需基本能力。<br>1. 數列極限 2. 無窮等比級數 3. 複數平面 4. 二次曲線<br>5. 函數的極限 6. 微分 7. 導函數 8. 黎曼和 9. 積分及其應用                       |              |                          |
| 教學大綱：   | 週次/序                                                                                                                            | 單元/主題        | 內容綱要                     |
|         | 一                                                                                                                               | 微積分積分觀念統整    | 上學期課程回顧                  |
|         | 二                                                                                                                               | 微積分實驗        | 使用Geogebra作極限，導函數的運算及應用  |
|         | 三                                                                                                                               | 微積分實驗        | 使用Geogebra作積分的運算及應用      |
|         | 四                                                                                                                               | 指、對數函數的微分與積分 | 指、對數函數的導函數               |
|         | 五                                                                                                                               | 指、對數函數的微分與積分 | 指、對數函數的積分                |
|         | 六                                                                                                                               | 指、對數函數的微分與積分 | 指、對數函數積分的應用題型            |
|         | 七                                                                                                                               | 指、對數函數的微分與積分 | 指、對數函數微分的應用題型            |
|         | 八                                                                                                                               | 微積分實驗        | 使用Geogebra作數學計算          |
|         | 九                                                                                                                               | 三角函數的微分與積分   | 三角函數的導函數                 |
|         | 十                                                                                                                               | 三角函數的微分與積分   | 三角函數的積分                  |
|         | 十一                                                                                                                              | 三角函數的微分與積分   | 三角函數應用題型                 |
|         | 十二                                                                                                                              | 基礎函數的極值問題    | 各類基礎函數的極值：多項式、指數、對數、合成函數 |
|         | 十三                                                                                                                              | 專題探究         | 旋轉體體積<br>旋轉體面積           |
|         | 十四                                                                                                                              | 專題探究         | 線積分                      |
|         | 十五                                                                                                                              | 專題探究         | 物體質心問題(1)--三角形，多邊形       |
|         | 十六                                                                                                                              | 專題探究         | 物體質心問題(1)--圓弧，扇形         |
|         | 十七                                                                                                                              |              |                          |
|         | 十八                                                                                                                              |              |                          |
|         | 十九                                                                                                                              |              |                          |
|         | 二十                                                                                                                              |              |                          |
|         | 二十一                                                                                                                             |              |                          |
| 二十二     |                                                                                                                                 |              |                          |
| 學習評量：   | 1. 紙筆測驗 40%<br>2. 檔案評量（書面報告） 20%<br>3. 實作評量 20%<br>4. 口語評量（分組報告） 20%                                                            |              |                          |
| 備註：     |                                                                                                                                 |              |                          |

|         |                                                                                                  |             |                   |
|---------|--------------------------------------------------------------------------------------------------|-------------|-------------------|
| 課程名稱：   | 中文名稱：微積分概論                                                                                       |             |                   |
|         | 英文名稱：Introduction to Calculus                                                                    |             |                   |
| 授課年段：   | 三下                                                                                               |             | 學分總數：2            |
| 課程屬性：   | 專題探究                                                                                             |             |                   |
| 議題融入：   | 科技、資訊、閱讀素養                                                                                       |             |                   |
| 師資來源：   | 校內單科                                                                                             |             |                   |
| 課綱核心素養： | A自主行動：A2.系統思考與問題解決，                                                                              |             |                   |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                 |             |                   |
|         | C社會參與：C2.人際關係與團隊合作，                                                                              |             |                   |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，                               |             |                   |
| 學習目標：   | 能學會微積分的基本知識，以銜接未來大學所需基本能力。<br>1.數列極限 2.無窮等比級數 3.複數平面 4.二次曲線 5.函數的極限<br>6.微分 7.導函數 8.黎曼和 9.積分及其應用 |             |                   |
| 教學大綱：   | 週次/序                                                                                             | 單元/主題       | 內容綱要              |
|         | 一                                                                                                | 實數與函數       | 複習函數定義            |
|         | 二                                                                                                | 函數的極限與連續性   | 數列及極限-收斂數列、無窮等比級數 |
|         | 三                                                                                                | 函數的極限與連續性   | 函數的極限、連續函數        |
|         | 四                                                                                                | 函數的極限與連續性   | 函數極限、連續函數的應用問題    |
|         | 五                                                                                                | 導數與函數的圖形及應用 | 函數的導數、函數的微分及其意義   |
|         | 六                                                                                                | 導數與函數的圖形及應用 | 多項式函數的導函數         |
|         | 七                                                                                                | 導數與函數的圖形及應用 | 三角函數的導函數          |
|         | 八                                                                                                | 導數與函數的圖形及應用 | 指數、對數函數的導函數       |
|         | 九                                                                                                | 導數與函數的圖形及應用 | 導函數的性質及應用         |
|         | 十                                                                                                | 導數與函數的圖形及應用 | 函數的極值應用問題         |
|         | 十一                                                                                               | 微分觀念統整      | 導數、圖形應用問題         |
|         | 十二                                                                                               | 函數的積分及其應用   | 定積分的意義            |
|         | 十三                                                                                               | 函數的積分及其應用   | 定積分與不定積分          |
|         | 十四                                                                                               | 函數的積分及其應用   | 基礎函數的反導函數         |
|         | 十五                                                                                               | 函數的積分及其應用   | 旋轉體的體積及應用         |
|         | 十六                                                                                               | 函數的積分及其應用   | 旋轉體的面積及應用         |
|         | 十七                                                                                               |             |                   |
|         | 十八                                                                                               |             |                   |
|         | 十九                                                                                               |             |                   |
|         | 二十                                                                                               |             |                   |
|         | 二十一                                                                                              |             |                   |
| 二十二     |                                                                                                  |             |                   |
| 學習評量：   | 1.檔案評量（課堂筆記&書面報告）40%<br>2.實作評量 40%<br>3.口語評量（上台報告）20%                                            |             |                   |
| 備註：     |                                                                                                  |             |                   |

|         |                                                                                                                                        |                     |                                                                                                                                                                                                                                                |
|---------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：新聞理論與實務(下)                                                                                                                        |                     |                                                                                                                                                                                                                                                |
|         | 英文名稱：Real Talk: How News is Made                                                                                                       |                     |                                                                                                                                                                                                                                                |
| 授課年段：   | 三下                                                                                                                                     |                     | 學分總數：2                                                                                                                                                                                                                                         |
| 課程屬性：   | 職涯試探                                                                                                                                   |                     |                                                                                                                                                                                                                                                |
| 議題融入：   | 人權、多元文化、戶外教育                                                                                                                           |                     |                                                                                                                                                                                                                                                |
| 師資來源：   | 外聘(其他)                                                                                                                                 |                     |                                                                                                                                                                                                                                                |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進, A3.規劃執行與創新應變,                                                                                                      |                     |                                                                                                                                                                                                                                                |
|         | B溝通互動：B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                      |                     |                                                                                                                                                                                                                                                |
|         | C社會參與：C1.道德實踐與公民意識, C2.人際關係與團隊合作, C3.多元文化與國際理解,                                                                                        |                     |                                                                                                                                                                                                                                                |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                     |                                                                                                                                                                                                                                                |
| 學習目標：   | 1.認識新聞價值、掌握新聞重點。<br>2.了解媒體生態與政治民生關聯性。<br>3.判斷新聞及節目真假。<br>4.具備新聞寫稿配音及播報能力。<br>5.實地採訪並完成新聞作品。                                            |                     |                                                                                                                                                                                                                                                |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題               | 內容綱要                                                                                                                                                                                                                                           |
|         | 一                                                                                                                                      | 新聞理論與媒體生態衝擊         | 中立客觀：由挑選新聞及受訪者談起<br>新聞自由之珍貴：北韓與沙國的親身體驗<br>第四權：監督政府還是無限擴張<br>NCC國家通訊傳播委員會多次開罰廣電媒體                                                                                                                                                               |
|         | 二                                                                                                                                      | 自媒體運用及亂象            | NCC管不到的網路世界<br>YouTube、FB、IG、LINE已成新聞來源<br>運用時需思考可信度<br>公眾人物操作自媒體, 加分或扣分?<br>人人狗仔? 別當鍵盤魔人!                                                                                                                                                     |
|         | 三                                                                                                                                      | 收視率 新聞廣告化           | 尼爾森收視率 準確嗎?<br>新聞收視率飆高：奧運、選舉、颱風<br>到底誰是收視率冠軍? 聽懂第一的含意<br>男性or女性or男女 每分鐘平均收視<br>04歲~99歲總收視率高不代表各年齡層都高<br>04~14, 15~24, 35~44, 45~54歲...<br>35~54歲平均收視率最被重視：主要消費族群<br>收視率與廣告收入<br>收視率與電視台新聞走向<br>各類置入行銷，<br>廣編稿 公關稿<br>業配來源：電視台高層，廠商，地方政府，中央，候選人 |
|         | 四                                                                                                                                      | 獨家新聞迷思、新聞台參訪前說明觀察重點 | 獨家消息 獨家畫面 獨家訪問<br>小組討論：獨家新聞怎麼來? 主動與被動<br>『獨家』光環的鼓勵：記者挖掘真相，完成使命。<br>『獨家』壓力的亂象：記者與消息來源關係扭曲，造假新聞。<br>副控室內各司其職：<br>導播 助導 技術指導 主編 字幕員 音控 製作人<br>導播指令要明確<br>重大直播或連線，緊急硬變聽誰的? 製作人? 導播?<br>導播與主播的默契                                                    |

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| 五  | 新聞台實地參訪        | 新聞直播攝影棚及副控室運作觀察<br>現場指令聆聽<br>文稿編輯系統如何連結各組運作<br>剪接室及編輯台觀察(視時間長短)                                                                                                                                                                                                         |
| 六  | 新聞台參訪心得、街訪前置說明 | 各組提問<br>分享收穫：口頭+書面報告<br><br>如何運用街訪<br>何謂有效街訪？如何運用反問追問，得到更完整答案？<br>依對象決定街訪地點<br>主題確認並提交街訪題目                                                                                                                                                                              |
| 七  | 街訪實務操作         | 街頭採訪                                                                                                                                                                                                                                                                    |
| 八  | 街訪實務操作及剪接      | 街頭採訪<br>有效街訪剪接                                                                                                                                                                                                                                                          |
| 九  | 採訪變動、各台新聞做法比較  | 新聞及專題製作常需應變或妥協：<br>受訪者反悔，天候不佳，主管更改新聞主軸…<br><br>同一條新聞的各種面貌：多段影片探討<br>相同新聞來源為何做法不同                                                                                                                                                                                        |
| 十  | 新聞專題探討週        | 專題製作目的：教育？關懷？監督？政宣？業配？拿獎？<br><br>長專題影片探討：播放三次，每一次小組報告觀察心得<br>播第一次前 只說明故事背景<br>播第二次前 說明音樂音效、及圖卡的運用<br>播第三次前 說明各訪問的運用及串接，stand設計<br><br>優點：此專題後半段巧妙呈現衝突點，運用雙方不同<br>論點直接對話，加強監督力道。<br><br>缺點一：訪談內容過度精簡不完整(因長度由十分砍到七分半)<br>缺點二：應找一般學校補救教學做強烈對比，但當時快放寒假，課後補救教學多數皆已停課，只好轉變寫法。 |
| 十一 | 新聞專題探討週        | 長專題影片探討：播放2次<br>同樣主題，它台記者有不同做法，帶出不同面相，強調人文關懷！<br>小組討論能否有其他做法                                                                                                                                                                                                            |
| 十二 | 電視新聞讓畫面說話      | 畫面重要性更勝文字<br>文字記者需向攝影記者充分說明畫面需求<br>新聞影片探討：<br>畫面設計，Stand設計<br>CG電腦圖卡及動畫運用<br>默片無聲勝有聲                                                                                                                                                                                    |
| 十三 | 攝影剪接講座         | 資深攝影記者作品分享<br>開放各組提問                                                                                                                                                                                                                                                    |
| 十四 | 攝影剪接講座心得報告     | 各組分享收穫<br>口頭+書面報告                                                                                                                                                                                                                                                       |
| 十五 | 電子新聞vs. 平面新聞   | 報社新聞 報導深入<br>電視新聞 影響面廣<br>平面與電子媒體的微妙依存<br>報紙及電子報成為電視新聞固定來源                                                                                                                                                                                                              |



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|       | 十六                                              | 政論節目的運作 | 預錄或Live<br>決定當日話題及重大突發應變<br>主持人與名嘴的默契<br>為何名嘴什麼都能講?! |
|       | 十七                                              |         |                                                      |
|       | 十八                                              |         |                                                      |
|       | 十九                                              |         |                                                      |
|       | 二十                                              |         |                                                      |
|       | 二十一                                             |         |                                                      |
|       | 二十二                                             |         |                                                      |
| 學習評量： | 上課參與度50%, 電視台訪後心得報告25%, 街頭訪問15%, 攝影剪接講座心得報告10%。 |         |                                                      |
| 備註：   |                                                 |         |                                                      |

【備查版】

【備查版】

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| 課程名稱：   | 中文名稱： 經典電影賞析與創作(下)                                                                                                                     |                 |                                                 |
|         | 英文名稱： Film Appreciation and Production                                                                                                 |                 |                                                 |
| 授課年段：   | 三下                                                                                                                                     | 學分總數： 2         |                                                 |
| 課程屬性：   | 跨領域/科目專題                                                                                                                               |                 |                                                 |
| 議題融入：   | 人權、品德、家庭教育、國際教育                                                                                                                        |                 |                                                 |
| 師資來源：   | 外聘(其他)                                                                                                                                 |                 |                                                 |
| 課綱核心素養： | A自主行動： A3. 規劃執行與創新應變,                                                                                                                  |                 |                                                 |
|         | B溝通互動： B1. 符號運用與溝通表達, B2. 科技資訊與媒體素養, B3. 藝術涵養與美感素養,                                                                                    |                 |                                                 |
|         | C社會參與： C2. 人際關係與團隊合作, C3. 多元文化與國際理解,                                                                                                   |                 |                                                 |
| 學生圖像：   | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3. 個性完善：愛心熱誠、誠信正直、自律自省。， 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。， |                 |                                                 |
| 學習目標：   | 1. 認識不同類型電影的風格。<br>2. 賞析比較不同類型電影，以及相同文學作品改編為不同型態的電影。<br>3. 小組合作規劃電影的製作與拍攝。<br>4. 舉辦靜心電影展                                               |                 |                                                 |
| 教學大綱：   | 週次/序                                                                                                                                   | 單元/主題           | 內容綱要                                            |
|         | 一                                                                                                                                      | 認識新好萊塢、後現代電影    | 1. 電影運動特色介紹<br>2. 比較新好萊塢及後現代電影彼此的影響及創新          |
|         | 二                                                                                                                                      | 新好萊塢、後現代電影分享討論  | 學生報告分享與帶領討論新好萊塢及後現代電影特色                         |
|         | 三                                                                                                                                      | 認識改編劇本          | 1. Two Hamlets-介紹兩位導演指導同一句劇碼之異同<br>2. 比較不同導演的風格 |
|         | 四                                                                                                                                      | 比較改編劇本          | 比較劇本並進行小組發表-以Two Hamlets為例                      |
|         | 五                                                                                                                                      | 臺灣新浪潮電影：侯孝賢與楊德昌 | 1. 台灣電影運動特色介紹<br>2. 兩位台灣導演的背景專長介紹-以侯孝賢與楊德昌為例    |
|         | 六                                                                                                                                      | 臺灣新浪潮電影分享討論     | 學生報告分享與帶領討論臺灣新浪潮電影之特色                           |
|         | 七                                                                                                                                      | 電影製作協作          | 電影拍攝方向及劇本討論與確認                                  |
|         | 八                                                                                                                                      | 電影製作協作          | 小組分享劇本，確認各組拍攝的劇本                                |
|         | 九                                                                                                                                      | 電影製作協作          | 電影分鏡介紹與策劃                                       |
|         | 十                                                                                                                                      | 電影製作協作          | 1. 分配電影中的角色<br>2. 編修劇本<br>3. 實際排練走位             |
|         | 十一                                                                                                                                     | 電影製作協作          | 認識電影編輯及剪輯之軟硬體設備                                 |
|         | 十二                                                                                                                                     | 電影製作協作          | 1. 電影編輯技巧介紹<br>2. 加入音效與燈光元素                     |
|         | 十三                                                                                                                                     | 電影製作協作          | 電影後期製作與整合I                                      |
|         | 十四                                                                                                                                     | 電影製作協作          | 電影後期製作與整合II                                     |
|         | 十五                                                                                                                                     | 電影分享            | 小組電影分享                                          |
|         | 十六                                                                                                                                     | 省思與展望           | 電影節電影評析與心得分享                                    |
|         | 十七                                                                                                                                     |                 |                                                 |
|         | 十八                                                                                                                                     |                 |                                                 |
|         | 十九                                                                                                                                     |                 |                                                 |
|         | 二十                                                                                                                                     |                 |                                                 |
| 二十一     |                                                                                                                                        |                 |                                                 |

|       |                                                 |  |
|-------|-------------------------------------------------|--|
|       | 二十二                                             |  |
| 學習評量： | 課堂互動10%、課堂實作10%、小組合作20%、專題規劃20%、電影作品20%、靜心影展20% |  |
| 備註：   |                                                 |  |

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| 課程名稱：   | 中文名稱：經濟學(下)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                |
|         | 英文名稱：Economics II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 學分總數：3                                                                                                                                                                                                         |
| 課程屬性：   | 通識性課程                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                |
| 議題融入：   | 國際教育                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進, A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                |
|         | B溝通互動：B1.符號運用與溝通表達,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                |
|         | C社會參與：C1.道德實踐與公民意識,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3.個性完善：愛心熱誠、誠信正直、自律自省。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 ,                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                |
| 學習目標：   | Economics is the study of how individuals, groups, and countries deal with the problem of limited resources and unlimited wants and needs. This course helps students gain a deeper understanding of important concepts such as tradeoffs, opportunity cost, supply and demand, saving and investing, production and consumption, fiscal and monetary policy, inflation and unemployment, and trade policy. Upon successful completion of the course students should be better able to assess the economic policy decisions that affect them, their community and their country. |                                                                                                                                                                                                                |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 單元/主題                                                                                                                                                                                                          |
|         | 一                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Market Failure and Government                                                                                                                                                                                  |
|         | 二                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Market Failure and Government                                                                                                                                                                                  |
|         | 三                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Macroeconomics - Measurement of the economy                                                                                                                                                                    |
|         | 四                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Macroeconomics - Measurement of the economy                                                                                                                                                                    |
|         | 五                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Macroeconomics - Measurement of the economy                                                                                                                                                                    |
|         | 六                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Macroeconomics - Measurement of the economy                                                                                                                                                                    |
|         | 七                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Macroeconomics - Measurement of the economy                                                                                                                                                                    |
|         | 八                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Economic Instability                                                                                                                                                                                           |
|         | 九                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Economic Instability                                                                                                                                                                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 內容綱要                                                                                                                                                                                                           |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | What is the purpose of government?<br>What if there was no government?                                                                                                                                         |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Externalities and Socially Optimal Outcomes<br>Public Goods and Income Distribution                                                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | How do we know how well our economy is doing?<br>Define measures and determinants of economic growth.                                                                                                          |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Explain (using graphs and data as appropriate) the determinants of economic growth.                                                                                                                            |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | What do all those initials, (GDP, GNP, NI, DI, PI) really mean?<br>Define measures and determinants of economic growth.<br>Explain (using graphs and data as appropriate) the determinants of economic growth. |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Define how GDP is measured and its components.<br>Calculate nominal GDP.                                                                                                                                       |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Define the limitations of GDP.<br>Define nominal GDP and real GDP.<br>Calculate real GDP and the GDP deflator.                                                                                                 |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | The economy has ups and downs just like everything else.<br>What happens when we have our downs and how do we go back up?                                                                                      |
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unemployment<br>Define the labor force, the unemployment                                                                                                                                                       |

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|       |                                    | t rate, and the labor force participation rate.<br>Explain how changes in employment and the labor market affect the unemployment rate and the labor force participation rate. |
| 十     | Fiscal Roles of Government         | Taxes and spending.<br>Deadweight losses                                                                                                                                       |
| 十一    | Fiscal Roles of Government         | Administrative burden<br>Marginal tax rate versus average tax rates                                                                                                            |
| 十二    | The Federal Reserve System         | Who makes decisions about interest rates and money supply and what effect does it have on the economy?<br>Define monetary policy and related terms.                            |
| 十三    | The Federal Reserve System         | Explain (using graphs as appropriate) the short run effects of a monetary policy action.<br>What is the monetary policy in Taiwan?                                             |
| 十四    | International Economics            | Where does Taiwan fit into the global picture?                                                                                                                                 |
| 十五    | Review                             | Current events, questions and discussions                                                                                                                                      |
| 十六    | Wrap up                            | Reflections and moving forward                                                                                                                                                 |
| 十七    |                                    |                                                                                                                                                                                |
| 十八    |                                    |                                                                                                                                                                                |
| 十九    |                                    |                                                                                                                                                                                |
| 二十    |                                    |                                                                                                                                                                                |
| 二十一   |                                    |                                                                                                                                                                                |
| 二十二   |                                    |                                                                                                                                                                                |
| 學習評量： | 40% 課堂參與討論<br>30% 回家作業<br>30% 專題報告 |                                                                                                                                                                                |
| 備註：   | 全英語授課                              |                                                                                                                                                                                |

|         |                                                                                                               |            |                          |
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| 課程名稱：   | 中文名稱： 電子學原理與實驗(下)                                                                                             |            |                          |
|         | 英文名稱： Electronics Principles and Laboratory                                                                   |            |                          |
| 授課年段：   | 三下                                                                                                            | 學分總數： 2    |                          |
| 課程屬性：   | 實作(實驗)及探索體驗                                                                                                   |            |                          |
| 議題融入：   | 科技、資訊                                                                                                         |            |                          |
| 師資來源：   | 外聘(其他)                                                                                                        |            |                          |
| 課綱核心素養： | A自主行動： A2.系統思考與問題解決, A3.規劃執行與創新應變,                                                                            |            |                          |
|         | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                            |            |                          |
|         | C社會參與： C2.人際關係與團隊合作,                                                                                          |            |                          |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |            |                          |
| 學習目標：   | 1. 認識基本類比電路元件<br>2. 了解電路元件運作原理<br>3. 了解訊號的增減與傳遞方式<br>4. 學會麵包板的使用，並將電路圖轉化成麵包板上的電路                              |            |                          |
| 教學大綱：   | 週次/序                                                                                                          | 單元/主題      | 內容綱要                     |
|         | 一                                                                                                             | 電晶體(一)     | pnp、npn標準電晶體<br>射極、基極、集極 |
|         | 二                                                                                                             | 電晶體(二)     | 電晶體的物理性質<br>電晶體IV曲線實作    |
|         | 三                                                                                                             | 共基極放大電路(一) | CB放大電路的電流電壓特性            |
|         | 四                                                                                                             | 共基極放大電路(二) | CB放大電路實作                 |
|         | 五                                                                                                             | 共集極放大電路(一) | CC放大電路的電流電壓特性            |
|         | 六                                                                                                             | 共集極放大電路(二) | CC放大電路實作                 |
|         | 七                                                                                                             | 共射極放大電路(一) | CE放大電路的電流電壓特性            |
|         | 八                                                                                                             | 共射極放大電路(二) | CE放大電路實作                 |
|         | 九                                                                                                             | 運算放大器(一)   | 負回授電路                    |
|         | 十                                                                                                             | 運算放大器(二)   | 緩衝電路                     |
|         | 十一                                                                                                            | 運算放大器(三)   | 反向放大器                    |
|         | 十二                                                                                                            | 運算放大器(四)   | 正回授電路                    |
|         | 十三                                                                                                            | 儀表放大器      | 施密特觸發器                   |
|         | 十四                                                                                                            | 類比家電拆解(一)  | 自主拆解小家電並分析電路與元件(一)       |
|         | 十五                                                                                                            | 類比家電拆解(二)  | 自主拆解小家電並分析電路與元件(二)       |
|         | 十六                                                                                                            | 期末報告       | 分享對於電路分析的研究              |
|         | 十七                                                                                                            |            |                          |
|         | 十八                                                                                                            |            |                          |
|         | 十九                                                                                                            |            |                          |
|         | 二十                                                                                                            |            |                          |
|         | 二十一                                                                                                           |            |                          |
| 二十二     |                                                                                                               |            |                          |
| 學習評量：   | 1. 課堂實驗學習單50%<br>2. 隨堂測驗20%<br>3. 期末報告30%                                                                     |            |                          |
| 備註：     |                                                                                                               |            |                          |

|         |                                                                                                                                                                                                                                                                                             |                                                                                                                                             |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：   | 中文名稱：電影與文學中的生物科技                                                                                                                                                                                                                                                                            |                                                                                                                                             |
|         | 英文名稱：Biotechnology in Film and Literature                                                                                                                                                                                                                                                   |                                                                                                                                             |
| 授課年段：   | 三下                                                                                                                                                                                                                                                                                          | 學分總數：2                                                                                                                                      |
| 課程屬性：   | 通識性課程                                                                                                                                                                                                                                                                                       |                                                                                                                                             |
| 議題融入：   | 性別平等、人權、環境、海洋、生命、科技、能源、家庭教育、生涯規劃、多元文化、國際教育                                                                                                                                                                                                                                                  |                                                                                                                                             |
| 師資來源：   | 校內單科                                                                                                                                                                                                                                                                                        |                                                                                                                                             |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進，A2.系統思考與問題解決，                                                                                                                                                                                                                                                            |                                                                                                                                             |
|         | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                                                            |                                                                                                                                             |
|         | C社會參與：C1.道德實踐與公民意識，C2.人際關係與團隊合作，C3.多元文化與國際理解，                                                                                                                                                                                                                                               |                                                                                                                                             |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。3.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。                                                                                                                                                                                       |                                                                                                                                             |
| 學習目標：   | 1. 探索尖端技術：理解基因工程、幹細胞研究與基因編輯技術的基本原理及應用，並探討其發展的潛力與限制。<br>2. 強化倫理意識：透過分析文學與電影中的案例，培養學生對生物技術倫理議題（如基因改造、生命操控等）的敏感度與責任感。<br>3. 促進問題解決能力：學習分析複雜的生物科技議題，從不同角度提出可能的解決方案或應對方式。<br>4. 激發科學熱情：透過感受科學發現的力量，激發學生對生物技術的好奇心與探索熱情，鼓勵未來可能的學術或職業發展。<br>5. 社會影響反思：培養學生理解生物技術在現代社會中的角色與影響，思考如何負責任地應用這些技術造福人類與環境。 |                                                                                                                                             |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                                                                        | 單元/主題                                                                                                                                       |
|         | 一                                                                                                                                                                                                                                                                                           | 蜘蛛人 (Spider-Man)                                                                                                                            |
|         | 二                                                                                                                                                                                                                                                                                           | 姊姊的守護者 (My Sister's Keeper)                                                                                                                 |
|         | 三                                                                                                                                                                                                                                                                                           | 攻殼機動隊 (Ghost in the Shell)                                                                                                                  |
|         | 四                                                                                                                                                                                                                                                                                           | 議題討論與思辨                                                                                                                                     |
|         | 五                                                                                                                                                                                                                                                                                           | 美味代價 (Food, Inc.)                                                                                                                           |
|         | 六                                                                                                                                                                                                                                                                                           | 侏羅紀世界 (Jurassic World)                                                                                                                      |
|         | 七                                                                                                                                                                                                                                                                                           | 永生戰 (Seo Bok)                                                                                                                               |
|         | 八                                                                                                                                                                                                                                                                                           | 議題討論與思辨                                                                                                                                     |
|         | 九                                                                                                                                                                                                                                                                                           | 絕地再生 (The Island)                                                                                                                           |
|         |                                                                                                                                                                                                                                                                                             | 內容綱要                                                                                                                                        |
|         |                                                                                                                                                                                                                                                                                             | 1. 原著文學作品：Spider-Man (漫畫)，Stan Lee and Steve Ditko, 1962<br>2. DNA與突變<br>3. 基因改造的倫理議題                                                       |
|         |                                                                                                                                                                                                                                                                                             | 1. 原著文學作品：My Sister's Keeper, Jodi Picoult, 2004<br>2. 器官移植與生殖輔助醫學<br>3. 胚胎著床前基因診斷 (preimplantation genetic diagnosis, PGD)<br>4. 救命寶寶與倫理爭議 |
|         |                                                                                                                                                                                                                                                                                             | 1. 原著文學作品：Ghost in the Shell (漫畫)，Masamune Shirow, 1989<br>2. 器官移植<br>3. 大腦意識與生化科技                                                          |
|         |                                                                                                                                                                                                                                                                                             | 針對1~3週課程內容進行省思與討論                                                                                                                           |
|         |                                                                                                                                                                                                                                                                                             | 1. 消化與吸收<br>2. 生物科技與食物生產<br>3. 環境倫理                                                                                                         |
|         |                                                                                                                                                                                                                                                                                             | 1. 原著文學作品：Jurassic Park, Michael Crichton, 1990<br>2. 生物演化<br>3. 基因改造生物                                                                     |
|         |                                                                                                                                                                                                                                                                                             | 1. 幹細胞<br>2. 基因科技<br>3. 科技倫理                                                                                                                |
|         |                                                                                                                                                                                                                                                                                             | 針對5~7週課程內容進行省思與討論                                                                                                                           |
|         |                                                                                                                                                                                                                                                                                             | 1. 胚胎幹細胞<br>2. 複製人                                                                                                                          |



|       |                                                                                |                                                                                                     |
|-------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|       |                                                                                | 3. 生命倫理                                                                                             |
| 十     | 雙子殺手 (Gemini Man)                                                              | 1. 雙胞胎<br>2. 複製人<br>3. 生命倫理                                                                         |
| 十一    | 100公尺的人生 (100 Meters)                                                          | 1. 原著文學作品：100 Metros, Ramón Arroyo (自傳作品)<br>2. 認識多發性硬化症<br>3. 自體免疫疾病<br>4. 神經與免疫                   |
| 十二    | 議題討論與思辨                                                                        | 針對9~11週課程內容進行省思與討論                                                                                  |
| 十三    | 魔比斯 (Morbis)                                                                   | 1. 原著文學作品：Morbis the Living Vampire (漫畫), Roy Thomas and Gil Kane, 1971<br>2. 重組DNA<br>3. 基因科技與基因治療 |
| 十四    | 毀滅大作戰 (Rampage)                                                                | 1. 基因工程<br>2. 基因編輯<br>3. 動物保護                                                                       |
| 十五    | 搶救地球 (Home)                                                                    | 1. 全球暖化<br>2. 生態保育<br>3. 環境倫理                                                                       |
| 十六    | 議題討論與思辨                                                                        | 針對13~15週課程內容進行省思與討論                                                                                 |
| 十七    |                                                                                |                                                                                                     |
| 十八    |                                                                                |                                                                                                     |
| 十九    |                                                                                |                                                                                                     |
| 二十    |                                                                                |                                                                                                     |
| 二十一   |                                                                                |                                                                                                     |
| 二十二   |                                                                                |                                                                                                     |
| 學習評量： | 1. 課堂參與 (40%)：每堂課程皆有學習單與省思。<br>2. 期末報告 (60%)：閱讀一本原著文學作品撰寫導讀文或是針對課程討論議題進行一主題報告。 |                                                                                                     |
| 備註：   |                                                                                |                                                                                                     |

|             |                                                                                                                                            |                                                                          |                                                                                        |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱： 德語6                                                                                                                                  |                                                                          |                                                                                        |
|             | 英文名稱： German6                                                                                                                              |                                                                          |                                                                                        |
| 授課年段：       | 三下                                                                                                                                         | 學分總數： 2                                                                  |                                                                                        |
| 課程屬性：       | 第二外國語文                                                                                                                                     |                                                                          |                                                                                        |
| 議題融入：       | 多元文化、國際教育                                                                                                                                  |                                                                          |                                                                                        |
| 師資來源：       | 外聘(其他)                                                                                                                                     |                                                                          |                                                                                        |
| 課綱核心素<br>養： | A自主行動： A1. 身心素質與自我精進,                                                                                                                      |                                                                          |                                                                                        |
|             | B溝通互動： B1. 符號運用與溝通表達, B3. 藝術涵養與美感素養,                                                                                                       |                                                                          |                                                                                        |
|             | C社會參與： C3. 多元文化與國際理解,                                                                                                                      |                                                                          |                                                                                        |
| 學生圖像：       | 1. 知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。 , 2. 能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。 , 3. 個性完善：愛心熱誠、誠信正直、自律自省。 , 4. 群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。 , |                                                                          |                                                                                        |
| 學習目標：       | 1. 複習德文發音規則。<br>2. 高階句型及語法概念介紹。<br>3. 複習日常生活表達，包含問候、自我介紹、數字、日常習慣等。<br>4. 德語國家文化認識。<br>5. 透過小組討論加強單字及句型的應用。                                 |                                                                          |                                                                                        |
| 教學大綱：       | 週次/<br>序                                                                                                                                   | 單元/主題                                                                    | 內容綱要                                                                                   |
|             | 一                                                                                                                                          | Revision Lessons 21-24                                                   | 回顧上學期的德語戲劇，討論表演藝術元素。                                                                   |
|             | 二                                                                                                                                          | Lesson 25: Computer and Internet                                         | 德語劇本閱讀：背景介紹                                                                            |
|             | 三                                                                                                                                          | Lesson 25: Computer and Internet                                         | Group poster making: famous German brands and German companies in Taiwan (preparation) |
|             | 四                                                                                                                                          | Lesson 25: Computer and Internet                                         | Group poster making: famous German brands and German companies in Taiwan (preparation) |
|             | 五                                                                                                                                          | Revision of lessons 21-25, group presentations                           | Groups presenting their posters on famous German brands and German companies in Taiwan |
|             | 六                                                                                                                                          | Comprehensive Listening, Reading, Writing/Grammar and Speaking Exercises | Strengthening skills of lessons 21-25                                                  |
|             | 七                                                                                                                                          | Lesson 26: school projects and making suggestions in e-mails             | Preparation for filming a video: Introducing Chingshin Academy in German               |
|             | 八                                                                                                                                          | Lesson 26: school projects and making suggestions in e-mails             | Preparation for filming a video: Introducing Chingshin Academy in German               |
|             | 九                                                                                                                                          | Lesson 26: school projects and making suggestions in e-mails             | Filming a video: Introducing Chingshin Academy in German                               |
|             | 十                                                                                                                                          | Revision of lessons 25-27                                                | Review vocabulary and grammar                                                          |
|             | 十一                                                                                                                                         | Comprehensive Listening, Reading, Writing/Grammar and Speaking Exercises | Strengthening skills of lessons 25-27                                                  |
|             | 十二                                                                                                                                         | Lesson 27:                                                               | competitions and class trips                                                           |
|             | 十三                                                                                                                                         | Lesson 27: competitions and class trips                                  | German writing contest                                                                 |
|             | 十四                                                                                                                                         | Lesson 27: competitions and class trips                                  | German writing contest                                                                 |
| 十五          | Revision of lessons 25-27                                                                                                                  | Class trip to German restaurant                                          |                                                                                        |

|       |                                 |                |                                                                          |
|-------|---------------------------------|----------------|--------------------------------------------------------------------------|
|       | 十六                              | Feedback round | Discussing difficulties in the comprehensive exercises, semester wrap-up |
|       | 十七                              |                |                                                                          |
|       | 十八                              |                |                                                                          |
|       | 十九                              |                |                                                                          |
|       | 二十                              |                |                                                                          |
|       | 二十一                             |                |                                                                          |
|       | 二十二                             |                |                                                                          |
| 學習評量： | 課堂互動25%、課堂實作25%、小組合作25%、作品產出25% |                |                                                                          |
| 備註：   |                                 |                |                                                                          |

|             |                                                                                                                                                                            |           |               |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|
| 課程名稱：       | 中文名稱： 線性代數(下)                                                                                                                                                              |           |               |
|             | 英文名稱： Linear Algebra                                                                                                                                                       |           |               |
| 授課年段：       | 三下                                                                                                                                                                         | 學分總數： 2   |               |
| 課程屬性：       | 專題探究                                                                                                                                                                       |           |               |
| 議題融入：       | 科技、資訊、多元文化、閱讀素養、國際教育                                                                                                                                                       |           |               |
| 師資來源：       | 校內單科                                                                                                                                                                       |           |               |
| 課綱核心素<br>養： | A自主行動： A2.系統思考與問題解決,                                                                                                                                                       |           |               |
|             | B溝通互動： B1.符號運用與溝通表達, B2.科技資訊與媒體素養,                                                                                                                                         |           |               |
|             | C社會參與： C2.人際關係與團隊合作,                                                                                                                                                       |           |               |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。， 2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。， 3.個性完善：愛心熱誠、誠信正直、自律自省。， 4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                         |           |               |
| 學習目標：       | 能學會線性代數的基本知識，以銜接未來大學所需基本能力。 課程主題： 1. n元一次方程組及其應用 2. 經濟模型：矩陣、馬可夫鍊、投入-產出模型 3. 線性遞迴問題—對角化、Cayley-Hamilton定理、生物繁衍應用 4. 幾何變換—伸縮、旋轉 5. 統計方法—最小平方法 6. 維度及基底 7. 物理應用—解單擺及簡諧運動微分方程式 |           |               |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                   | 單元/主題     | 內容綱要          |
|             | 一                                                                                                                                                                          | 專題問題探究    | 線性遞迴問題        |
|             | 二                                                                                                                                                                          | 專題問題探究    | 物流、電路、化學的應用   |
|             | 三                                                                                                                                                                          | 坐標變換與向量空間 | 線性變換          |
|             | 四                                                                                                                                                                          | 坐標變換與向量空間 | 線性變換的合成       |
|             | 五                                                                                                                                                                          | 坐標變換與向量空間 | 向量空間--向量與直線   |
|             | 六                                                                                                                                                                          | 坐標變換與向量空間 | 子空間           |
|             | 七                                                                                                                                                                          | 坐標變換與向量空間 | 點積與投影         |
|             | 八                                                                                                                                                                          | 線性代數實驗    | 應用問題探究        |
|             | 九                                                                                                                                                                          | 專題問題探究    | 平面和外積         |
|             | 十                                                                                                                                                                          | 專題問題探究    | 最小平方法         |
|             | 十一                                                                                                                                                                         | 專題問題探究    | AI應用--神經網路的架構 |
|             | 十二                                                                                                                                                                         | 專題問題探究    | AI應用--PCA方法概述 |
|             | 十三                                                                                                                                                                         | 專題問題探究    | 應用問題          |
|             | 十四                                                                                                                                                                         | 專題問題探究    | 線性獨立與維度定義     |
|             | 十五                                                                                                                                                                         | 專題問題探究    | 基底的存在         |
|             | 十六                                                                                                                                                                         | 專題問題探究    | 微分方程式應用       |
|             | 十七                                                                                                                                                                         |           |               |
|             | 十八                                                                                                                                                                         |           |               |
|             | 十九                                                                                                                                                                         |           |               |
|             | 二十                                                                                                                                                                         |           |               |
|             | 二十一                                                                                                                                                                        |           |               |
| 二十二         |                                                                                                                                                                            |           |               |
| 學習評量：       | 1.紙筆測驗 40%<br>2.檔案評量（書面報告）20%<br>3.實作評量 20%<br>4.口語評量（分組報告）20%                                                                                                             |           |               |
| 備註：         |                                                                                                                                                                            |           |               |

|             |                                                                                                                                                                                                                                                         |        |                                                                                                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 課程名稱：       | 中文名稱：學術研究與寫作專題(下)                                                                                                                                                                                                                                       |        |                                                                                                                                                                                                     |
|             | 英文名稱：Academic Writing II                                                                                                                                                                                                                                |        |                                                                                                                                                                                                     |
| 授課年段：       | 三下                                                                                                                                                                                                                                                      | 學分總數：3 |                                                                                                                                                                                                     |
| 課程屬性：       | 大學預修課程                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                     |
| 議題融入：       | 資訊、閱讀素養                                                                                                                                                                                                                                                 |        |                                                                                                                                                                                                     |
| 師資來源：       | 外聘(其他)                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                     |
| 課綱核心素<br>養： | A自主行動：A2.系統思考與問題解決，A3.規劃執行與創新應變，                                                                                                                                                                                                                        |        |                                                                                                                                                                                                     |
|             | B溝通互動：B1.符號運用與溝通表達，B2.科技資訊與媒體素養，                                                                                                                                                                                                                        |        |                                                                                                                                                                                                     |
|             | C社會參與：C2.人際關係與團隊合作，                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                     |
| 學生圖像：       | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                         |        |                                                                                                                                                                                                     |
| 學習目標：       | Lessons will lead students through the writing process from brainstorming to prewriting to drafting and then publishing. Students will learn language and syntax techniques to write effectively to achieve a specific purpose for a specific audience. |        |                                                                                                                                                                                                     |
| 教學大綱：       | 週次/<br>序                                                                                                                                                                                                                                                | 單元/主題  | 內容綱要                                                                                                                                                                                                |
|             | 一                                                                                                                                                                                                                                                       | Unit 4 | Identify major areas of concern in the draft essay of a peer and use peer review forms to assist with revision                                                                                      |
|             | 二                                                                                                                                                                                                                                                       | Unit 4 | Revise and edit the first draft of a descriptive essay to produce a final draft                                                                                                                     |
|             | 三                                                                                                                                                                                                                                                       | Unit 4 | Recognize the importance of logical sequence, specific syntax and examples, and transitions in an illustration or example essay                                                                     |
|             | 四                                                                                                                                                                                                                                                       | Unit 4 | Select appropriate examples to illustrate a point                                                                                                                                                   |
|             | 五                                                                                                                                                                                                                                                       | Unit 4 | Use specific word (proper nouns) in examples and capitalize correctly                                                                                                                               |
|             | 六                                                                                                                                                                                                                                                       | Unit 5 | Recognize the importance of logical sequence, specific syntax and examples, and coherence in an illustration or example essay<br>Select appropriate examples to illustrate a point                  |
|             | 七                                                                                                                                                                                                                                                       | Unit 5 | Demonstrate an understanding of evaluating Internet sites when researching<br>Write a rough draft of an essay using examples from life experience and/or research to explain a point                |
|             | 八                                                                                                                                                                                                                                                       | Unit 5 | Demonstrate knowledge of MLA citation for examples taken from outside sources<br>Demonstrate an understanding of coherence in writing                                                               |
|             | 九                                                                                                                                                                                                                                                       | Unit 5 | Identify major areas of concern in the draft essay of a peer and use peer review forms to assist with revision<br>Revise and edit the first draft of an illustration essay to produce a final draft |
|             | 十                                                                                                                                                                                                                                                       | Unit 6 | Generate, gather and organize ideas and information to write for a specific audience (i.e. a piece that persuades classmates an                                                                     |

|       |     |                              |                                                                                                                                                   |
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|       |     |                              | d the teacher that a particular opinion or idea is valid)                                                                                         |
|       | 十一  | Unit 6                       | Understand methods for organizing writing for an audience so that it is effectively able to convince them of the writer' s intended point of view |
|       | 十二  | Unit 6                       | Compose an effective persuasive thesis statement                                                                                                  |
|       | 十三  | Unit 7                       | Project writing                                                                                                                                   |
|       | 十四  | Unit 7                       | Project writing                                                                                                                                   |
|       | 十五  | Unit 7                       | Presentation                                                                                                                                      |
|       | 十六  | Wrap-up                      | Discussion and questions                                                                                                                          |
|       | 十七  |                              |                                                                                                                                                   |
|       | 十八  |                              |                                                                                                                                                   |
|       | 十九  |                              |                                                                                                                                                   |
|       | 二十  |                              |                                                                                                                                                   |
|       | 二十一 |                              |                                                                                                                                                   |
|       | 二十二 |                              |                                                                                                                                                   |
|       |     |                              |                                                                                                                                                   |
| 學習評量： |     | 40% 課堂參與討論、30% 回家作業、30% 專題報告 |                                                                                                                                                   |
| 備註：   |     | 全英語授課                        |                                                                                                                                                   |

|         |                                                                                                                                                                                                                                                  |                    |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 課程名稱：   | 中文名稱：藝術鑑賞(下)                                                                                                                                                                                                                                     |                    |
|         | 英文名稱：Arts Appreciation II                                                                                                                                                                                                                        |                    |
| 授課年段：   | 三下                                                                                                                                                                                                                                               | 學分總數：3             |
| 課程屬性：   | 職涯試探                                                                                                                                                                                                                                             |                    |
| 議題融入：   | 多元文化                                                                                                                                                                                                                                             |                    |
| 師資來源：   | 外聘(其他)                                                                                                                                                                                                                                           |                    |
| 課綱核心素養： | A自主行動：A1.身心素質與自我精進,                                                                                                                                                                                                                              |                    |
|         | B溝通互動：B3.藝術涵養與美感素養,                                                                                                                                                                                                                              |                    |
|         | C社會參與：C3.多元文化與國際理解,                                                                                                                                                                                                                              |                    |
| 學生圖像：   | 1.知識堅實：知識運用、科技整合、思辨統整、文化美學、閱讀理解。，2.能力顯著：自主學習、數位科技、自我超越、問題解決、外語應用。，3.個性完善：愛心熱誠、誠信正直、自律自省。，4.群性鮮明：接納同理、社會公民、團體合作、文化洞察、方案執行、國際理解。，                                                                                                                  |                    |
| 學習目標：   | 1. 認識台灣當代藝術脈絡發展與特色，理解藝術作品的歷史、文化和社會背景。<br>2. 學習當代藝術多元創作題材與各式作品表現形式，培養批判性思維，能夠分析和評價不同藝術形式與風格。<br>3. 透過媒材操作練習，發展自身相關議題與創作面向，進而擴展創作過程的多樣性與相關概念的活用。<br>4. 培養當代藝術的藝術涵養與美感素養，學習如何以觀者角度表達對作品的觀點和情感。<br>5. 啟迪學生的藝術潛能和興趣，培養帶著走的創造性，同時也著重藝術學習與生活、文化等跨領域的結合。 |                    |
| 教學大綱：   | 週次/序                                                                                                                                                                                                                                             | 單元/主題              |
|         | 一                                                                                                                                                                                                                                                | 課程概述               |
|         | 二                                                                                                                                                                                                                                                | 學生過往作品自介與自我講評      |
|         | 三                                                                                                                                                                                                                                                | 當代藝術作品形式導覽         |
|         | 四                                                                                                                                                                                                                                                | 當代展覽空間引導賞析         |
|         | 五                                                                                                                                                                                                                                                | 當期展覽參訪1（視當期展覽調整）   |
|         | 六                                                                                                                                                                                                                                                | 手機取材專題練習1（空間支架）    |
|         | 七                                                                                                                                                                                                                                                | 素材搜尋與製作            |
|         | 八                                                                                                                                                                                                                                                | 素材整理與呈現            |
|         | 九                                                                                                                                                                                                                                                | 當期展覽參訪2（視當期各地展覽調整） |
|         | 十                                                                                                                                                                                                                                                | 手機取材專題練習2（牆面載體）    |
|         | 十一                                                                                                                                                                                                                                               | 素材搜尋與製作            |
|         | 十二                                                                                                                                                                                                                                               | 素材整理與呈現            |
|         | 十三                                                                                                                                                                                                                                               | 當期展覽參訪3（視當期各地展覽調整） |
|         | 十四                                                                                                                                                                                                                                               | 手機取材專題練習3（角落設定）    |
|         | 十五                                                                                                                                                                                                                                               | 素材搜尋與製作            |
|         | 十六                                                                                                                                                                                                                                               | 素材整理與呈現            |
|         | 十七                                                                                                                                                                                                                                               | 三次成果連結與期末呈現構思      |
|         | 十八                                                                                                                                                                                                                                               | 期末發表以及心得回饋自評       |
|         | 十九                                                                                                                                                                                                                                               |                    |
| 二十      |                                                                                                                                                                                                                                                  |                    |



|       |                                     |  |  |
|-------|-------------------------------------|--|--|
|       | 二十一                                 |  |  |
|       | 二十二                                 |  |  |
| 學習評量： | 心得回饋 40%、實做評量 30%、同儕互評 20%、成果報告 10% |  |  |
| 備註：   |                                     |  |  |

#### 四、特殊需求領域課程

#### 五、彈性學習時間之全學期授課充實(增廣)/補強性教學

|       |                                                                                                                                                                                                                                         |                            |                                                                                                                                    |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 名稱：   | 中文名稱： 專題小論文                                                                                                                                                                                                                             |                            |                                                                                                                                    |
|       | 英文名稱： Research project                                                                                                                                                                                                                  |                            |                                                                                                                                    |
| 授課年段： | 一上、一下、二上、二下                                                                                                                                                                                                                             |                            |                                                                                                                                    |
| 內容屬性： | 充實/增廣                                                                                                                                                                                                                                   |                            |                                                                                                                                    |
| 師資來源： | 校內跨科協同                                                                                                                                                                                                                                  |                            |                                                                                                                                    |
| 學習目標： | 1. 尊重學習自主性，培養學生能依個人興趣專長自選主題，探究思考、問題解決、蒐集分析資料、發表分享的能力。<br>2. 能將問題建構為有意義的研究主題與架構，並運用適切研究方法，依據研究期程，主動蒐集與分析資料，隨時修正相關內容與步驟，有效解決問題。<br>3. 有研究倫理正確觀念，並在研究過程中遵守相關倫理規定。<br>4. 能掌握小論文評核指標，進行小論文研究設計與實作，並完成優質的作品。<br>5. 能學習電子書製作方法，並將個人小論文作品製成電子書。 |                            |                                                                                                                                    |
| 教學大綱： | 週次/序                                                                                                                                                                                                                                    | 單元/主題                      | 內容綱要                                                                                                                               |
|       | 一                                                                                                                                                                                                                                       | 專題小論文課程介紹與分組               | 1. 本學期課程目標、研究進度、作業繳交成果發表及評量方式說明<br>2. 中學生小論文競賽辦法說明。<br>3. 靜心盃高中研究計畫發表競賽辦法說明。<br>4. 靜心盃高中專題成果發表競賽辦法說明。<br>5. 靜心盃電子書競賽辦法說明。<br>6. 分組 |
|       | 二                                                                                                                                                                                                                                       | 論文評核指標                     | 報告撰寫與修正。                                                                                                                           |
|       | 三                                                                                                                                                                                                                                       | 靜心盃專題論文競賽辦法說明              | 能掌握競賽辦法及評分規準，進行專題論文研究與撰寫。                                                                                                          |
|       | 四                                                                                                                                                                                                                                       | 研究計畫與實作〈一〉-研究主題、目的、研究方法及設計 | 1. 確認研究主題與目的<br>2. 閱覽擬研究之主題相關作品，並構思所欲研究之研究題目。<br>3. 撰寫研究方法、對象與流程                                                                   |
|       | 五                                                                                                                                                                                                                                       | 研究計畫與實作〈二〉-文獻蒐集與分析、結論與建議   | 1. 蒐集閱覽文獻與摘要，引註資料建檔<br>2. 完成結論與建議                                                                                                  |
|       | 六                                                                                                                                                                                                                                       | 學習博覽會-小論文靜態展示板製作           | 小論文展示板版面設計、文稿編排、美工處理                                                                                                               |
|       | 七                                                                                                                                                                                                                                       | 學習博覽會-小論文靜態展示板製作           | 小論文展示板版面設計、文稿編排、美工處理                                                                                                               |
|       | 八                                                                                                                                                                                                                                       | 學習博覽會-小論文展示與觀摩             | 1. 小論文會場布置與觀摩學習<br>2. 依據觀摩與學習結果針對自己的小論文進行檢討省思，必要時進行與修改以作為本學期作品。<br>3. 完成自互評表。                                                      |
|       | 九                                                                                                                                                                                                                                       | 靜心盃專題論文競賽準備                | 小論文修正及簡報製作                                                                                                                         |
|       | 十                                                                                                                                                                                                                                       | 靜心盃專題論文競賽-口頭發表             | 簡報製作及口頭練習。                                                                                                                         |
|       | 十一                                                                                                                                                                                                                                      | 電子書內容元素製作-內容製作             | 將小論文作品製成電子書，規劃落板單並完成電子書編輯及上傳〈文字編輯及美編文稿及影音素材蒐集〉                                                                                     |
|       | 十二                                                                                                                                                                                                                                      | 電子書內容元素製作-內容製作             | 將小論文作品製成電子書，規劃落板單並完成電子書編輯及上傳〈文字編輯及美編文稿及影音素材蒐集〉                                                                                     |
|       | 十三                                                                                                                                                                                                                                      | 電子書內容元素製作-內容製作             | 將小論文作品製成電子書，規劃落板單並完成電子書編輯及上傳〈文字編輯及美編文稿及影音素材蒐集〉                                                                                     |
|       | 十四                                                                                                                                                                                                                                      | 著作權、個資法、隱私權、受試者保護&文獻探討     | 1. 著作權、個資法、隱私權、受試者保護相關規範及倫理認識與遵守。                                                                                                  |

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|     |                                                                                                |                  | 2. 蒐集閱覽文獻與摘要。<br>3. 引註資料建檔。<br>4. 尋找高二專題小論文研究主題，並嘗試撰寫研究計畫。<br>5. 辦理專題講座。 |
|     | 十五                                                                                             | 電子書班內發表、專題成果發表準備 | 電子書口頭發表、專題成果發表準備簡報製作。                                                    |
|     | 十六                                                                                             | 電子書線上互評          | 電子書競賽線上互評                                                                |
|     | 十七                                                                                             | 學期成果發表準備         | 本學期研究進度檢討說明、期末成發簡報製作                                                     |
|     | 十八                                                                                             | 學期成果分享與回饋        | 分組發表本學期學習成果、完成自互評、教師講評、下學期預定進度說明                                         |
|     | 十九                                                                                             |                  |                                                                          |
|     | 二十                                                                                             |                  |                                                                          |
|     | 二十一                                                                                            |                  |                                                                          |
|     | 二十二                                                                                            |                  |                                                                          |
| 備註： | 學生自主選擇與未來學群相關研究專題，進行小論文的報告撰寫與發表。另有自主學習供學生自訂主題及計畫進行學習提供學生持續精進個人專長興趣，培育具備主體學習、深入探究、思考判斷、多元開展的學生。 |                  |                                                                          |

|       |                                                                         |            |                   |
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| 名稱：   | 中文名稱：生涯大師                                                               |            |                   |
|       | 英文名稱：Career Paths and Career Planning                                   |            |                   |
| 授課年段： | 三上、三下                                                                   |            |                   |
| 內容屬性： | 充實/增廣                                                                   |            |                   |
| 師資來源： | 校內跨科協同                                                                  |            |                   |
| 學習目標： | 1、生涯規劃工具介紹。 2、主題式講座為課程主軸，重視瞭解的歷程與學群概況理解。 3. 自選職場實況報導，我也是職況達人，專題報告，進路整理。 |            |                   |
| 教學大綱： | 週次/序                                                                    | 單元/主題      | 內容綱要              |
|       | 一                                                                       | 生涯規劃回顧     | 繁星推薦. 個人申請與考試分發   |
|       | 二                                                                       | 醫藥衛生學群     | 學群導覽與職場介紹         |
|       | 三                                                                       | 專題講座       | 數位資料庫介紹與應用，專題構思。  |
|       | 四                                                                       | 管理與財經學群    | 學群導覽與職場介紹         |
|       | 五                                                                       | 專題講座       | 運籌帷幄商管人才          |
|       | 六                                                                       | 法政學群       | 學群導覽與職場介紹         |
|       | 七                                                                       | 專題講座       | 數理化學群             |
|       | 八                                                                       | 數理化學群      | 學群導覽與職場介紹         |
|       | 九                                                                       | 專題講座       | 學習歷程檔案平台檢視        |
|       | 十                                                                       | 教育與社會與心理學群 | 學群導覽與職場介紹         |
|       | 十一                                                                      | 專題講座       | 學習歷程檔案平台檢視        |
|       | 十二                                                                      | 彩繪人生-分組報告  | 學群導覽與職場介紹         |
|       | 十三                                                                      | 彩繪人生-分組報告  | 聞古道今文化史者          |
|       | 十四                                                                      | 彩繪人生-分組報告  | 學群導覽與職場介紹         |
|       | 十五                                                                      | 專題講座       | 資訊流動與的整理者與載具的使用專家 |
|       | 十六                                                                      | 專題分組報告1    | 職況達人，專題報告         |
|       | 十七                                                                      | 專題分組報告2    | 職況達人，專題報告         |
|       | 十八                                                                      | 專題分組報告3    | 職況達人，專題報告         |
|       | 十九                                                                      |            |                   |
|       | 二十                                                                      |            |                   |
|       | 二十一                                                                     |            |                   |
|       | 二十二                                                                     |            |                   |
| 備註：   | 依班群學生需求開設, 協助學生大學院系探索、國內外升學輔導、職業環境與學群瞭解等，以配合自身優勢能力、生涯興趣及工作價值觀，建構生涯藍圖。   |            |                   |

捌、特殊教育及特殊類型班級課程規劃表

玖、團體活動時間實施規劃

| 項目         | 第一學年 |    | 第二學年 |    | 第三學年 |    |
|------------|------|----|------|----|------|----|
|            | 一    | 二  | 一    | 二  | 一    | 二  |
| 班級活動時數     | 6    | 6  | 6    | 6  | 14   | 12 |
| 社團活動時數     | 16   | 16 | 16   | 16 | 16   | 14 |
| 學生自治活動時數   | 4    | 4  | 4    | 4  | 10   | 8  |
| 學生服務學習活動時數 | 4    | 4  | 4    | 4  | 4    | 4  |
| 週會或講座時數    | 6    | 6  | 6    | 6  | 10   | 10 |

## 拾、彈性學習時間實施規劃

### 一、學生自主學習實施規範

[381306 私立靜心高中自主學習實施規範\(PDF格式\)](#)

#### 臺北市私立靜心高級中學彈性學習時間及自主學習實施補充規定

107 年 10 月 24 日課發會通過

111 年 1 月 20 日課發會通過

一、 本校為落實彈性學習時間學生自主學習之實施，依據教育部 103 年 11 月 28 日臺教授國部字第 1030135678A 號發布之十二年國民基本教育課程綱要總綱(以下簡稱總綱)與十二年國民基本教育課程綱要高級中等學校課程規劃及實施要點(以下簡稱要點)相關規定，特訂定補充規定(以下簡稱本規定)。

二、 本校彈性學習時間學生自主學習之實施，以落實總綱「自發」、「互動」、「共好」之核心理念，並協助提升學生自主學習能力，鼓勵學生自發規劃學習內容為目的。並以發展學校特色和銜接學生進路為主軸，綜合考量學校發展、學生需求，周延規劃課程內容並妥適安排師資。

三、 本校彈性學習時間課程內涵

| 課程內涵       | 高一上      | 高一下      | 高二上      | 高二下      | 高三上      | 高三下      | 合計   |
|------------|----------|----------|----------|----------|----------|----------|------|
| 自主學習       | 2 節*9 週  | 2 節*9 週  | 2 節*9 週  | 2 節*9 週  |          |          | 72 節 |
| 充實課程-專題小論文 | 1 節*18 週 | 1 節*18 週 | 1 節*18 週 | 1 節*18 週 |          |          | 72 節 |
| 充實課程-生涯大師  |          |          |          |          | 2 節*18 週 | 2 節*16 週 | 68 節 |
| 校隊培訓       |          |          | 2 節*6 週  | 2 節*6 週  |          |          | 48 節 |
| 學校特色活動     |          |          | 6 節      | 6 節      |          |          | 24 節 |

四、 本校彈性學習時間學生自主學習之規劃原則如下：

- 〈一〉 學生自主學習之實施時段，應於本校彈性學習時間所定每週實施節次內為之
- 〈二〉 學生申請自主學習，應依附件一完成自主學習申請表，並得自行徵詢邀請指導教師指導，或由班級為單位提出申請，經教務處彙整後，依其自主學習之主題與性質，指派校內具相關專長之專任或代理教師，擔任指導教師。
- 〈三〉 學生申請自主學習者，應系統規劃學習主題、內容、進度、目標及方式，依附件二完成自主學習計畫書，並經指導教師指導及其父母或監護人同意。
- 〈四〉 學生應將經父母或監護人同意後之自主學習計畫書，送交指導教師簽署後，依教務處規定之時程及程序，完成自主學習申請。
- 〈五〉 學生自主學習之實施地點以本校校內為原則。
- 〈六〉 學生完成自主學習申請後，應依自主學習計畫書之規劃實施；學生因故須變更自主學習計畫書，應於二週前與指導教師討論並完成自主學習計畫變更申請後為之；但學生因參與彈性學習時間之選手培訓或參加彈性學習時間之補強性教學活動者，經與指導教師討論後，得以公假登記並直接登載於自主學習計畫書即可。

五、 本校自主學習的實施原則、輔導管理和學習計畫之實施相關補充規定如下：

〈一〉 實施原則：

1. 鼓勵學生自主規劃；
2. 提升自主學習能力；
3. 落實自主學習精神。
4. 每學年申請一次。

〈二〉 輔導管理：

1. 學生得於高一、高二彈性學習時間，規劃進行自主學習，並得採個人或小組方式，進行專題(書)、議題或創新實作，且應安排進行成果報告或展示。
2. 學生進行自主學習前，應經指導老師和討論後，填具申請表經家長(法定代理人)同意後實施。

〈三〉 學生自主學習的學習計畫應包括擬自主學習的主題、內容、進度、方式及所需資源或設備等；學生自主學習規畫表如附件二。

〈四〉 學校應提供適合和必要的學習資源，如：資訊設備、圖書和使用空間等；同時，為能落實 學生自主學習成效，得安排老師隨班或組進行指導。

六、 學生於各學期結束前，應將自主學習申請書、自主學習計畫書、指導紀錄表及自主學習成果紀錄表彙整成冊；指導教師得就學生自主學習成果發表之內容、自主學習成果彙編之完成度、學生自主學習目標之達成度或實施自主學習過程之參與度，經綜合評估後，表現優良者得依本校學生獎懲實施規定予以嘉獎。

七、 本補充規定經課程發展委員會討論通過，陳校長核定後實施，並納入本校課程計畫。



附件一

臺北市私立靜心高級中學 學年度 彈性學習時間 自主學習申請表

|              |                                                                                                                                                                                                                          |         |           |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------|
| 申請學生<br>資料   | 班級                                                                                                                                                                                                                       | 座號      | 姓名（請親自簽名） |
|              |                                                                                                                                                                                                                          |         |           |
| 自主學習<br>主題   | <input type="checkbox"/> 創新實作 <input type="checkbox"/> 專書閱讀 <input type="checkbox"/> 科學實作 <input type="checkbox"/> 議題探究 <input type="checkbox"/> 藝文創作 <input type="checkbox"/> 技能實務<br><input type="checkbox"/> 其他：_____ |         |           |
| 自主學習<br>實施地點 | <input type="checkbox"/> 教室 <input type="checkbox"/> 教學資源中心 <input type="checkbox"/> 其他：                                                                                                                                 |         |           |
| 自主學習<br>初步規劃 | 週次                                                                                                                                                                                                                       | 實施內容與進度 |           |
|              | 1                                                                                                                                                                                                                        |         |           |
|              | 2                                                                                                                                                                                                                        |         |           |
|              | 3                                                                                                                                                                                                                        |         |           |
|              | 4                                                                                                                                                                                                                        |         |           |
|              | 5                                                                                                                                                                                                                        |         |           |
|              | 6                                                                                                                                                                                                                        |         |           |
|              | 7                                                                                                                                                                                                                        |         |           |
|              | 8                                                                                                                                                                                                                        |         |           |
|              | 9                                                                                                                                                                                                                        |         |           |
|              | 10                                                                                                                                                                                                                       |         |           |
|              | 11                                                                                                                                                                                                                       |         |           |
|              | 12                                                                                                                                                                                                                       |         |           |
|              | 13                                                                                                                                                                                                                       |         |           |
|              | 14                                                                                                                                                                                                                       |         |           |
|              | 15                                                                                                                                                                                                                       |         |           |
|              | 16                                                                                                                                                                                                                       |         |           |
| 17           |                                                                                                                                                                                                                          |         |           |

|                    |    |           |         |
|--------------------|----|-----------|---------|
|                    | 18 |           |         |
| 自主學習<br>學習目標       |    |           |         |
| 自主學習<br>所需協助       |    |           |         |
| 申請受理情形（此部分，申請同學免填） |    |           |         |
| 受理日期               | 編號 | 領域召集人/科主任 | 建議之指導教師 |
|                    |    |           |         |

教學組長：

教務主任：

|              |      |         |           |
|--------------|------|---------|-----------|
| 學生班級         | 學生座號 | 學生姓名    | 指導教師      |
|              |      |         |           |
| 自主學習<br>主題   |      |         |           |
| 自主學習<br>學習目標 |      |         |           |
| 自主學習<br>方式   |      |         |           |
| 自主學習<br>實施地點 |      | 所需資源或設備 |           |
| 自主學習<br>初步規劃 | 週次   | 實施內容與進度 | 教師晤談與指導規劃 |
|              | 1    |         |           |
|              | 2    |         |           |
|              | 3    |         |           |
|              | 4    |         |           |
|              | 5    |         |           |
|              | 6    |         |           |
|              | 7    |         |           |
|              | 8    |         |           |
|              | 9    |         |           |
|              | 10   |         |           |
|              | 11   |         |           |
| 自主學習         | 12   |         |           |

|            |    |      |                                                                                                                       |
|------------|----|------|-----------------------------------------------------------------------------------------------------------------------|
| 初步規劃       | 13 |      |                                                                                                                       |
|            | 14 |      |                                                                                                                       |
|            | 15 |      |                                                                                                                       |
|            | 16 |      |                                                                                                                       |
|            | 17 |      |                                                                                                                       |
|            | 18 |      |                                                                                                                       |
| 指導教師<br>意見 |    |      |                                                                                                                       |
| 父母或監護人意見   |    |      |                                                                                                                       |
| 意見         |    | 同意簽署 |                                                                                                                       |
|            |    |      |                                                                                                                       |
| 教學組長       |    | 審查意見 | <input type="checkbox"/> 通過 <input type="checkbox"/> 修正通過<br><input type="checkbox"/> 不通過 <input type="checkbox"/> 其他 |
| 教務主任       |    | 審查意見 | <input type="checkbox"/> 通過 <input type="checkbox"/> 修正通過<br><input type="checkbox"/> 不通過 <input type="checkbox"/> 其他 |

## 自主學習晤談及指導紀錄表

[illegible]

自主學習成果紀錄表

| 學生班級         | 學生座號 | 學生姓名    | 指導教師 |            |
|--------------|------|---------|------|------------|
|              |      |         |      |            |
| 自主學習<br>主題   |      |         |      |            |
| 自主學習<br>學習目標 |      |         |      |            |
| 自主學習<br>方式   |      |         |      |            |
| 自主學習<br>實施地點 |      |         |      |            |
| 自主學習<br>成果記錄 | 週次   | 實施內容與進度 | 自我檢核 | 指導教師<br>確認 |
|              | 1    |         |      |            |
|              | 2    |         |      |            |
|              | 3    |         |      |            |
|              | 4    |         |      |            |
|              | 5    |         |      |            |
|              | 6    |         |      |            |
|              | 7    |         |      |            |
|              | 8    |         |      |            |
|              | 9    |         |      |            |
|              | 10   |         |      |            |

|              |    |  |  |  |
|--------------|----|--|--|--|
|              | 11 |  |  |  |
|              | 12 |  |  |  |
|              | 13 |  |  |  |
|              | 14 |  |  |  |
|              | 15 |  |  |  |
|              | 16 |  |  |  |
|              | 17 |  |  |  |
|              | 18 |  |  |  |
| 自主學習成果說明     |    |  |  |  |
| 自主學習學習目標達成情形 |    |  |  |  |
| 自主學習歷程省思     |    |  |  |  |
| 指導教師建議       |    |  |  |  |

教學組長：

教務主任：



二、彈性學習時間規劃表

| 類別    | 內容          |       | 第一學年 |    |    |      |    |    | 第二學年 |    |    |      |    |    | 第三學年 |    |    |      |    |    | 備註                                                                   |  |
|-------|-------------|-------|------|----|----|------|----|----|------|----|----|------|----|----|------|----|----|------|----|----|----------------------------------------------------------------------|--|
|       |             |       | 第一學期 |    |    | 第二學期 |    |    | 第一學期 |    |    | 第二學期 |    |    | 第一學期 |    |    | 第二學期 |    |    |                                                                      |  |
|       |             |       | 班數   | 節數 | 週數 | 班數   | 節數 | 週數 | 班數   | 節數 | 週數 | 班數   | 節數 | 週數 | 班數   | 節數 | 週數 | 班數   | 節數 | 週數 |                                                                      |  |
| 自主學習  | 依學生需求自訂主題實施 |       | 10   | 2  | 9  | 10   | 2  | 9  | 10   | 2  | 9  | 10   | 2  | 9  |      |    |    |      |    |    |                                                                      |  |
| 選手培訓  | 各類校隊選手集訓    |       |      |    |    |      |    |    | 10   | 2  | 6  | 10   | 2  | 6  |      |    |    |      |    |    |                                                                      |  |
| 全學期授課 | 充實/增廣       | 生涯大師  |      |    |    |      |    |    |      |    |    |      |    |    | 4    | 2  | 18 | 4    | 2  | 16 | 依班群學生需求開設,協助學生大學院系探索、國內外升學輔導、職業環境與學群瞭解等,以配合自身優勢能力、生涯興趣及工作價值觀,建構生涯藍圖。 |  |
|       | 充實/增廣       | 專題小論文 | 10   | 1  | 18 | 10   | 1  | 18 | 10   | 1  | 18 | 10   | 1  | 18 |      |    |    |      |    |    | 學生自主選擇與未來學群相關研究專題,進行小論文的報告撰寫與發表,培育具備主體學習、深入探究、思考判斷、多元開展的學生。          |  |

三、學校特色活動

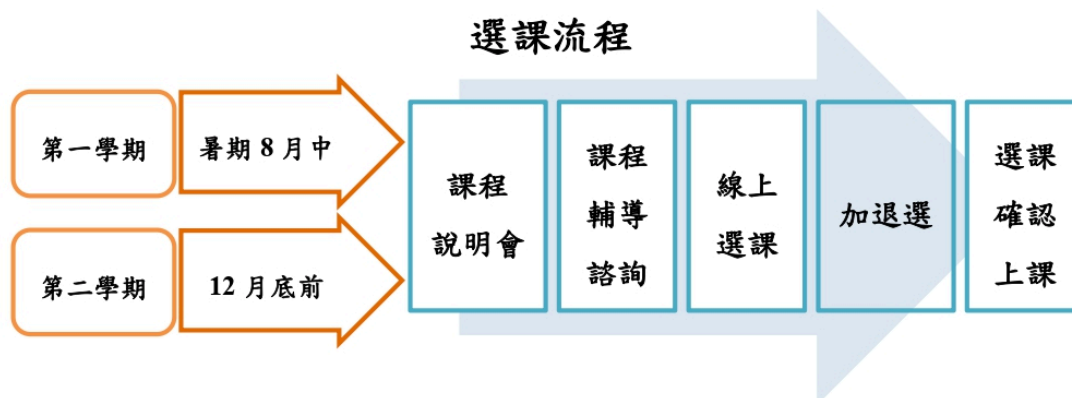
| 活動名稱   | 辦理方式           | 第一學年 |   | 第二學年 |   | 第三學年 |   | 小時 | 預期效益及其他相關規定 |
|--------|----------------|------|---|------|---|------|---|----|-------------|
|        |                | 一    | 二 | 一    | 二 | 一    | 二 |    |             |
| 校慶展演活動 | 動態展演           |      |   | 3    |   |      |   | 3  |             |
| 跨境學習   | 國內外學校或單位交流參訪學習 |      |   | 3    | 3 |      |   | 6  |             |
| 學習博覽會  | 學習成果動態與靜態展     |      |   |      | 3 |      |   | 3  |             |

## 拾壹、選課規劃與輔導

### 一、選課流程規劃【含高一、高二及高三選課(組)流程】

#### (一) 流程圖

[381306 私立靜心高中流程圖\(PDF格式\)](#)





## (二) 日程表

| 序 | 時間                        | 活動內容   | 說明                                                                            |
|---|---------------------------|--------|-------------------------------------------------------------------------------|
| 1 | 114/06/                   | 選課宣導   | 舊生利用前一學期末進行選課宣導                                                               |
| 2 | 114/08                    | 選課宣導   | 利用新生報到時段進行選課宣導                                                                |
| 3 | 一學期：114/08<br>第二學期：114/01 | 學生進行選課 | 1. 進行分組選課<br>2. 以電腦選課方式進行<br>3. 規劃1.2~1.5倍選修課程<br>4. 相關選課流程參閱流程圖<br>5. 選課諮詢輔導 |
| 4 | 一學期：114/08<br>第二學期：115/02 | 正式上課   | 跑班上課                                                                          |
| 5 | 一學期：114/09<br>第二學期：115/02 | 加、退選   | 得於學期前兩週進行                                                                     |
| 6 | 115/06                    | 檢討     | 課發會進行選課檢討                                                                     |

## 二、選課輔導措施

(一)發展選課輔導手冊：請查看學校網頁公告。

(二)生涯探索：

選課選組是一連串探索和資料整理，需要做好事前充分的準備，才能順利的做出正確的抉擇。本校透過生涯金三角蘊涵三個向度的探索來作為選組的參考依據：「自我認識」、「社會與環境因素」及「教育與職業資料」來進行探索，彼此關聯，缺一不可。

1. 自我認識：思考自己擅長的能力是什麼？我的興趣在那裡？什麼是自己重視的生活價值？自己想達成的人生目標是什麼？可利用測驗結果了解自己的性向與能力、興趣與個性，並在自我探索歷程中了解自己的志向、價值觀，作為選課選組之參考依據。
2. 社會與環境因素：了解社會發展的趨勢，家人、父母的期望，在生涯發展中有何助力或阻力的因素。

(三)教育與職業資料：認識高中課程學科資料、了解大學學群、科系及多元入學方案，認識工作世界等。可以透過各大學校系或大考中心網站、實地去校園參觀訪問、請教學長姐、或到輔導中心查閱書面簡介等，清楚的知道哪些校系可以提供自己選擇。

上述第一項是『知己』，後兩項是『知彼』；唯有知己知彼，雙重的思考才能周延！關於知彼，可從大方向來思考，是關於時代趨勢、社會變遷走向以及產業或職業前景；另外還需考慮家庭本身擁有的資源與父母長輩的態度，整合兩大環境因素，再搭配個人興趣、能力、特質等條件，將有助於幫助學生更縝密的思考、選擇自己的生涯路。

(三)興趣量表：

本校為協助學生進行完整之自我探索，除實施大學興趣量表(電腦化生涯興趣測驗)外，同時提供學業系列性向測驗(適性化生涯性向測驗)及學系探索量表資訊，讓學生更能深入進行評估參考。

1. 興趣量表(電腦化生涯興趣測驗)是一份讓高中以上學生了解自己的興趣特質，功能包括高中高職生的選課選組或選填志願，一般大學與科技大學的轉系以及選擇研究所的生涯規劃參考工具。
2. 性向測驗(適性化生涯性向測驗)一幫助學生了解自己在各項潛在能力之高低程度，最理想的結果當然是性向測驗的結果與興趣測驗的結果一致，這樣表示同學的潛在能力和興趣一致，同學可以很清楚知道自已的方向，在選課選組的時候困擾比較少，將來學習上也比較少遇到挫折。
3. 學系探索量表一幫助同學瞭解自己對大學各學系學習興趣而編製的，它將幫助學生找到適合自己的「系群」以及「學系」。
4. 同學在做抉擇時，要多考慮自己的價值觀及個性，同時也需要考慮到社會及市場的需求，多方參照，才能做出最好的選擇。

(四)課程諮詢教師：

1. 學生適性選修輔導將搭配課程諮詢及生涯輔導：有關課程諮詢部分由課程諮詢教師辦理，有關生涯輔導部分，由專任輔導教師或導師協同辦理。
2. 本校每學期選課前，由召集人、課程諮詢教師及相關處室，針對教師、家長及學生辦理選課說明會，介紹學校課程地圖、課程內容及課程與未來進路發展之關聯，並說明大學升學進路。
3. 選課說明會辦理完畢後，針對不同情況及需求之學生，提供課程諮詢或生涯輔導；說明如下：
  - (1) 生涯定向者：提供必要之課程諮詢。
  - (2) 生涯未定向：家長期待與學生興趣有落差、學生能力與興趣有落差或二年級（三年級）學生擬調整原規劃發展之進路者：
    - ①先由導師進行瞭解及輔導，必要時，進一步與家長聯繫溝通。
    - ②導師視學生需求向輔導中心申請輔導，由專任輔導教師依學生性向、興趣測驗結果，進行生涯輔導。
    - ③經導師瞭解輔導或專任輔導教師生涯輔導後，續由課程諮詢教師，提供其個別之課程諮詢。
4. 課程諮詢教師每學期按時於學生學習歷程檔案，登載課程諮詢紀錄。

(五)其他：

## 拾貳、學校課程評鑑

### 一、學校課程評鑑計畫

[381306 私立靜心高中課程評鑑計畫\(PDF格式\)](#)

## 臺北市私立靜心高級中學 114 學年度 高中部 學校層級課程評鑑實施計畫

108.12.5 課發會通過

### 一、依據：

- 〈一〉十二年國民基本教育課程綱要及本校課程發展委員會工作計畫。
- 〈二〉108 年 5 月 30 日臺教授國部字第 1080050523B 號令「高級中等學校課程評鑑實施要點」。
- 〈三〉高級中等學校課程評鑑機制辦理參考原則。

### 二、目的：

- 〈一〉以系統化科學化方法蒐集課程相關資料，並據以判斷課程品質與價值，檢視「學校課程」實施的成效，作為課程改進或課程決定之依據。
- 〈二〉運用課程評鑑，檢視並調整學校課程發展方向與績效，並作為擬定新學年度學校總課程計畫之依據。
- 〈三〉透過課程評鑑，讓教師了解課程設計與實施現況，與學生學習成效，落實教師自我檢視與省思，增進教師自我覺察與專業成長，提升教學品質。

### 三、評鑑範圍：

- 〈一〉課程發展組織運作
- 〈二〉課程發展
- 〈三〉總體課程評鑑
- 〈四〉領域課程實施成效
- 〈五〉單一類型課程評鑑
- 〈六〉教師自評：包含「教師教學」及「議題融入課程」二部分
- 〈七〉學生回饋：由學生問卷與學生學習成果進行反思與課程調整。

### 四、評鑑方式

| 評鑑項目     | 評鑑規準                | 評鑑規準與工具           | 填表人               | 評鑑時間     |
|----------|---------------------|-------------------|-------------------|----------|
| 課程發展組織運作 | 1.課發會組織要點合法化        | 表 1：課程發展組織與運作檢核表  | 教務處填寫             | 每年 5-6 月 |
|          | 2.課程組織結構完整          |                   |                   |          |
|          | 3.發揮課程核心工作小組功能      |                   |                   |          |
|          | 4.落實課發會功能           |                   |                   |          |
|          | 5.課程計畫提經課發會審議       |                   |                   |          |
| 課程發展     | 課程總體計畫內容符合 108 課綱規範 | 表 2：課程發展檢核表       | 教務處填寫             | 每年 5 月   |
| 領域課程實施成效 | 一、課前準備              | 表 3：領域課程實施成效檢核表   | 表 3：每一領域共同完成 1 份  | 每年 5-6 月 |
|          | 二、有效的課程與教學          | 表 5：議題融入課程教師自我檢核表 | 表 5：每位教師填寫        | 每年 5-6 月 |
|          | 三、互動的課程管理機制         | 表 8：單一類型課程評鑑表     | 表 8：校訂必須及多元選修開課教師 | 每年 5-6 月 |
|          | 四、教科用書選編            |                   |                   |          |
|          | 五、適切的評量             |                   |                   |          |
|          | 六、教學成效              |                   |                   |          |
|          | 七、單一類型課程評鑑(高中)      |                   |                   |          |
|          | 八、議題融入教學            |                   |                   |          |

|            |              |                                                   |                     |                 |
|------------|--------------|---------------------------------------------------|---------------------|-----------------|
| 整體成效<br>評估 | 1.了解教師教學成效   | 表4：教師教學自我檢核表<br>表7：總體課程評鑑表                        | 表4：每位教師填寫<br>表7：教務處 | 每年5-6月          |
|            | 2.檢核全體學生學習表現 | 1.定考及模擬考成績分析<br>2.表6：學生學習回饋單                      | 表6：該課程有修課的學生填寫      | 每次評量後<br>每年5、1月 |
|            | 3.檢核學校辦學成效   | 學校日家長辦學滿意度調查表                                     | 家長                  | 每年8、2月學校日       |
|            | 4.運用課程評鑑結果   | 1.彙整各項評鑑工具統計分析於期末課發會報告。<br>2.作為擬定次學年度學校總體課程計畫之依據。 |                     | 每年7-8月          |

## 五、評鑑時程

本校課程評鑑時程由當年8月開始至翌年7月為止共1年，各事項執行期程如以下甘特圖所列之期程。

| 實施月份                   | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------|---|---|----|----|----|---|---|---|---|---|---|---|
| 擬定學校課程評鑑計畫             |   |   |    |    |    |   |   |   |   |   |   |   |
| 評鑑小組執行評鑑               |   |   |    |    |    |   |   |   |   |   |   |   |
| 教師自我檢核課程實施狀況           |   |   |    |    |    |   |   |   |   |   |   |   |
| 填寫教師教學自我檢核表            |   |   |    |    |    |   |   |   |   |   |   |   |
| 填寫學生回饋表                |   |   |    |    |    |   |   |   |   |   |   |   |
| 各科教學研究會彙集回饋意見並進行課程自我檢核 |   |   |    |    |    |   |   |   |   |   |   |   |
| 單一課程評鑑                 |   |   |    |    |    |   |   |   |   |   |   |   |
| 議題融入課程教師自我檢核           |   |   |    |    |    |   |   |   |   |   |   |   |
| 總體課程評鑑                 |   |   |    |    |    |   |   |   |   |   |   |   |
| 學校日家長辦學滿意度調查表          |   |   |    |    |    |   |   |   |   |   |   |   |
| 課程發展組織運作檢核             |   |   |    |    |    |   |   |   |   |   |   |   |
| 完成課程評鑑結果報告             |   |   |    |    |    |   |   |   |   |   |   |   |
| 執行改進實施方案<br>修正學校課程計畫   |   |   |    |    |    |   |   |   |   |   |   |   |

## 六、評鑑人員及方式：

(一)、成立評鑑小組：校長擔任召集人，由校內課程發展委員會委員兼任評鑑小組委員。

(二)、評鑑方式：

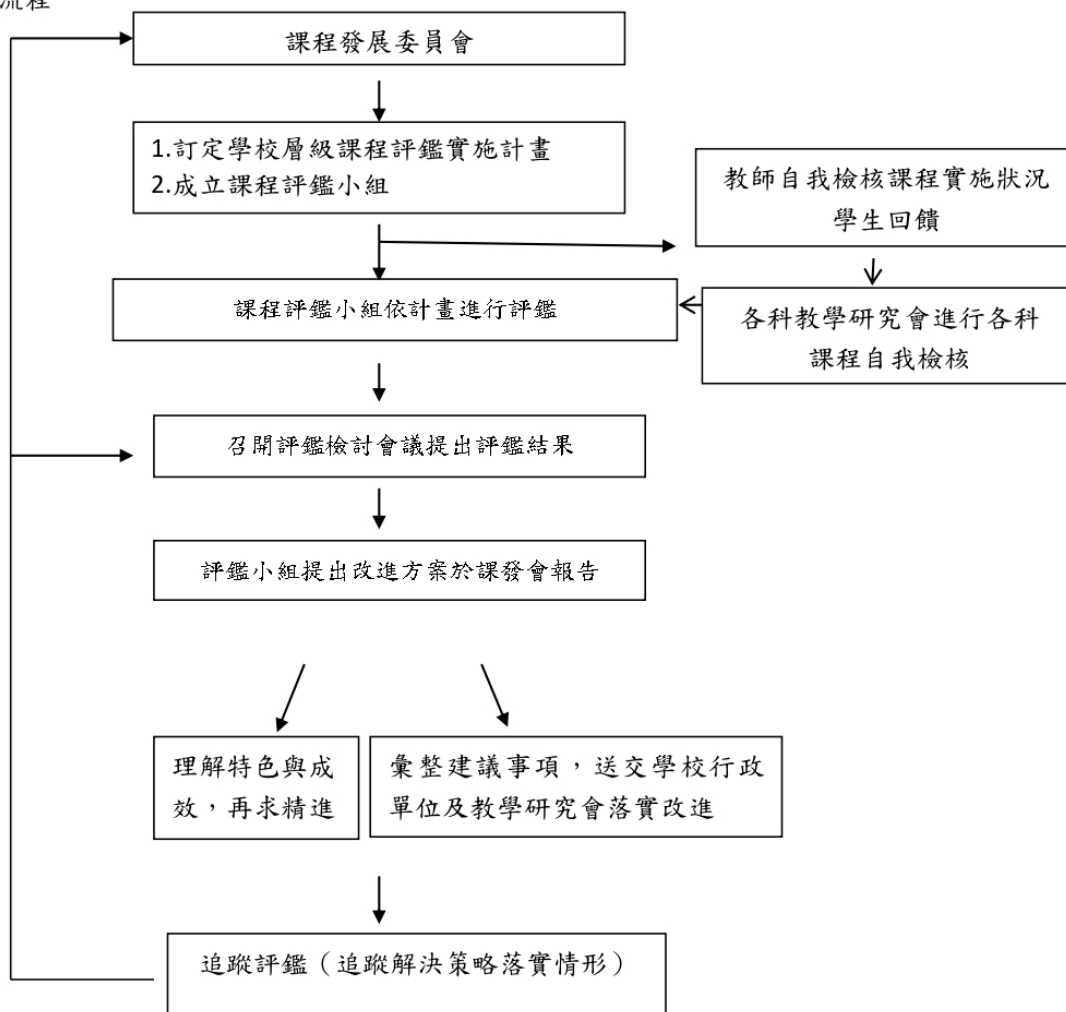
1.質性描述：除評鑑工具回饋之外，並根據學校日、課發會、教學研究會、行政會議親師生意見內容彙整分析。

2.量化結果：運用評鑑工具表1-表8了解課程實施是否達到預期的教學目標。

## 七、評鑑實施

評鑑的實施由課程評鑑小組依附件課程評鑑表及相關表件內容所列之項目進行評鑑，並提出改進實施方案。

#### 八、評鑑流程



#### 九、效益評估：

評鑑結果包含量化結果與質性描述，相關資料提供課發會委員、行政人員及各領域教師，作為課程改進的參考，修正校務運作模式，以增進教師專業知能，強化教學品質，提昇學生學習成效，促進校務發展。

十、本計畫所需經費由學校相關經費項下支付。

十一、本計畫經課程發展委員會研議通過，陳 校長核可後實施。



(表 1)臺北市私立靜心高級中學(高中部)114 學年度課發會組織運作檢核表

| 檢核項目                                                                       | 是否符合                                                  |
|----------------------------------------------------------------------------|-------------------------------------------------------|
| 1. 訂定「課程發展委員會組織要點」，經學校校務會議通過。                                              | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 2. 學校課程發展委員會下設各領域/群科/學程/科目教學研究會。                                           | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 3. 學校課程發展委員會之組成及運作方式由學校校務會議決定之。                                            | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 4. 課程發展委員會成員包括學校行政人員、年級及領域/群科/學程/科目（含特殊需求領域課程）之教師、教師組織代表及學生家長委員會代表及專家學者代表。 | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 5. 成立課程核心工作小組，規劃學校教育願景及學校總體課程。                                             | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 6. 學校校訂課程符合學校教育願景，經課發會審議通過。                                                | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 7. 學校課程計畫經課發會審議通過。                                                         | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 8. 課發會訂定課程評鑑計畫，進行課程評鑑。                                                     | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 9. 學校課程計畫經課程發展委員會三分之二以上委員出席，二分之一以上出席委員通過，並陳報各該主管機關。                        | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |

〈表2〉 臺北市私立靜心高級中學(高中部)114學年度課程發展檢核表

| 檢核項目                                                                                      | 是否符合                                                  |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 1. 學校課程除各領域課程外，另包含不同領域/群科/學程/科目間的統整課程。                                                    | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 2. 課程設計適切融入性別平等、人權、環境、海洋、品德、生命、法治、科技、資訊、能源、安全、防災、家庭教育、生涯規劃、多元文化、閱讀素養、戶外教育、國際教育、原住民族教育等議題。 | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 3. 因應特殊類型教育學生之個別需要，提供支持性輔助、特殊需求領域課程及實施課程調整。                                               | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 4. 特殊教育學生的課程依據特殊教育法所規範的個別化教育計畫或個別輔導計畫適性設計。                                                | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 5. 學校課程計畫至少包含總體架構、彈性學習時間及校訂課程規劃（含特色課程）、各領域/ 群科/學程/科目之教學重點、評量方式及進度等。                       | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 5.1 高一及高二每學期部定必修科目之開設在十二科以下。                                                              | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 5.2 校訂必修學分數達4~8學分。                                                                        | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 5.3 依學生興趣、性向、能力與需求開設至少6學分多元選修課程供學生選修。                                                     | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 5.4 提供學生跨班自由選修課程，開設之選修總學分數，達學生應修習選修學分數之1.2-1.5 倍。                                         | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 5.5 彈性學習時間按規定安排「學生自主學習」時間，3學年至少18節。                                                       | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 6. 學校課程計畫通過後，於開學前陳報各該主管機關備查，並運用書面或網站等多元管道向學生與家長說明。                                        | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |
| 7. 學校於該年度新生入學半年前完成課程計畫備查與公告說明，以利於學生選校參考。                                                  | <input type="checkbox"/> 是 <input type="checkbox"/> 否 |

(表3) 臺北市私立靜心高級中學(中學部)114 學年度領域課程實施成效檢核表

填表日期： 年 月 日

| 項目規準           | 細目                                   | 辦理情形 |    |    |     |    |
|----------------|--------------------------------------|------|----|----|-----|----|
|                |                                      | 優良   | 良好 | 尚可 | 待改進 | 說明 |
| (一) 課程實施前準備充分  | 1. 能對教師及家長溝通和宣導的情形                   |      |    |    |     |    |
|                | 2. 充分瞭解學生先備經驗                        |      |    |    |     |    |
|                | 3. 完善的教學計畫與進度規劃                      |      |    |    |     |    |
|                | 4. 妥善準備課程實施所需教材與設施                   |      |    |    |     |    |
|                | 5. 參與或辦理提升教學效能相關的專業成長活動              |      |    |    |     |    |
|                | 6. 落實寒暑假及學期中共同備課、觀課與議課               |      |    |    |     |    |
| (二) 有效的課程與教學   | 1. 能依據課程目標與課程內容特質，擬訂適當的教學設計與策略       |      |    |    |     |    |
|                | 2. 能將擬定的適當教學策略具體實踐於教學現場              |      |    |    |     |    |
|                | 3. 能省思學生學習效果，適時適切調整教學策略              |      |    |    |     |    |
|                | 4. 落實實施多元評量                          |      |    |    |     |    |
|                | 5. 課程實施能顧及學生個別差異、安排教學情境、有效運用各項教學資源等。 |      |    |    |     |    |
|                | 6. 教學活動運用學校及社區資源                     |      |    |    |     |    |
|                | 7. 教學活動達成學校願景與教學目標                   |      |    |    |     |    |
|                | 8. 對課程實施情形的反省與改進情形                   |      |    |    |     |    |
| (三) 互動性的課程管理機制 | 1. 教師團隊能共同備課、觀課及議課，營造專業對話分享討論的文化。    |      |    |    |     |    |
|                | 2. 教師團隊能不斷教學省思，修正課程與教學，以提高學生學習品質與成效。 |      |    |    |     |    |
|                | 3. 對於課程實施過程中所遭遇的問題與困難，能尋求解決或相關人員的支持。 |      |    |    |     |    |
| (四) 教科書評選      | 1. 依據學校訂定的教科用書評選辦法，選用教材，並能敘明選擇的理由。   |      |    |    |     |    |
|                | 2. 各學科或學習領域能發展或討論自編教材，落實學校本位課程。      |      |    |    |     |    |
|                | 3. 學校使用之自編自選教材於課程發展委員會中討論審查。         |      |    |    |     |    |
| (五) 適切的教學評量    | 1. 能掌握課程目標與內容特質，選擇或發展適切的學習成效評量工具和方法。 |      |    |    |     |    |
|                | 2. 評量內涵與課程目標與內容具一致性關聯                |      |    |    |     |    |
|                | 3. 評量方法多樣、適切，足以評量學生學習表現              |      |    |    |     |    |

|          |                                 |  |  |  |  |  |
|----------|---------------------------------|--|--|--|--|--|
|          | 4. 能分析評量結果，並據以改進教學及進行補救教學。      |  |  |  |  |  |
|          | 5. 能兼顧認知、情意與技能之評量，亦能兼顧形成性與總結性評量 |  |  |  |  |  |
|          | 6. 落實定期評量試題審題與雙向細目分析            |  |  |  |  |  |
| (六) 教學成效 | 1. 學生能力指標(含教學目標)的達成程度。          |  |  |  |  |  |
|          | 2. 學生上課表現積極主動參與情形。              |  |  |  |  |  |

一. 本學年課程實施成效檢核表

| 項目   | 頗具成效、學校特色，可持續保持，提供其他學校參考之事項 | 遭遇困難與待改進事項 |
|------|-----------------------------|------------|
| 課程規劃 |                             |            |
| 課程實施 |                             |            |
| 資源整合 |                             |            |

|      |  |  |
|------|--|--|
| 成效評估 |  |  |
|------|--|--|

二.. 本學年領域教師社群運作目標達成情形與檢討，下學年社群運作目標之擬訂

| 本學年領域教師社群運作目標達成情形與檢討 | 下學年社群運作目標 |
|----------------------|-----------|
|                      |           |

(表4) 臺北市私立靜心高級中學(中學部) 114學年度 教師教學 自我檢核表

| 項目                                              | 標準                                  | 細目                                                               | 辦理情形 |    |    |     |    |
|-------------------------------------------------|-------------------------------------|------------------------------------------------------------------|------|----|----|-----|----|
|                                                 |                                     |                                                                  | 優良   | 良好 | 尚可 | 待改進 | 備註 |
| 課程<br>規<br>劃<br>實<br>施<br>與<br>專<br>業<br>成<br>長 | (一)<br>實踐願景的體<br>課程方案               | 1. 能依據學校課程願景架構及目標設計各年級課程方案                                       |      |    |    |     |    |
|                                                 |                                     | 2. 課程方案能與課程願景與目標相連結                                              |      |    |    |     |    |
|                                                 |                                     | 3. 課程方案能彰顯學校社區特色及發展重點                                            |      |    |    |     |    |
|                                                 | (二) 完善周延<br>的教學前準備                  | 1. 開學前完成各學習領域課程計畫                                                |      |    |    |     |    |
|                                                 |                                     | 2. 開學前完成彈性學習節數課程計畫                                               |      |    |    |     |    |
|                                                 |                                     | 3. 上述課程計畫包含課程目標、課程內容、教學方法與策略, 及學習成效評量等項目, 且各項目之間具適切關聯性。          |      |    |    |     |    |
|                                                 |                                     | 4. 每學期開學前完成教學進度表送交教務處。                                           |      |    |    |     |    |
|                                                 |                                     | 5. 教學活動設計多元而適性, 提供學生學習、觀察、探索、提問、反思、討論、創作與問題解決的機會, 增強學習的理解、連貫和運用。 |      |    |    |     |    |
|                                                 | (三)<br>合適的課程教<br>材與評量               | 1. 具有達成課程目標所具有的課程教材內容                                            |      |    |    |     |    |
|                                                 |                                     | 2. 課程內容與教材能回應學生適性發展需求。                                           |      |    |    |     |    |
|                                                 |                                     | 3. 能掌握學校發展特色和社區特性, 充分運用「彈性學習節數」, 發展課程及其教材。                       |      |    |    |     |    |
|                                                 |                                     | 4. 實施多元適切的評量。                                                    |      |    |    |     |    |
|                                                 |                                     | 5. 指派之作業多元、適性與適量, 學生可勝任。                                         |      |    |    |     |    |
|                                                 |                                     | 6. 能強化課程內容統整性與銜接性                                                |      |    |    |     |    |
|                                                 |                                     | 7. 重大議題融入學習領域的情形                                                 |      |    |    |     |    |
|                                                 |                                     | 8. 教學活動適時融入數位學習資源與方法。                                            |      |    |    |     |    |
|                                                 | (四) 教學模式<br>與策略能反映<br>學生學習需要<br>的課程 | 1. 所設計的課程強調學生主動參與的角色                                             |      |    |    |     |    |
|                                                 |                                     | 2. 所設計的課程內容能與學生生活經驗及社會脈動相連結, 使學習具意義。                             |      |    |    |     |    |
|                                                 |                                     | 3. 依學生多方面差異, 規劃適性分組、運用多元教學模式, 不偏重教師單向講述式教學。                      |      |    |    |     |    |
|                                                 | (五) 班級經營                            | 1. 建立有助於學習的班級規範。                                                 |      |    |    |     |    |
|                                                 |                                     | 2. 親師生溝通互動良好。                                                    |      |    |    |     |    |
|                                                 |                                     | 3. 課堂氣氛融洽。                                                       |      |    |    |     |    |
|                                                 | (六) 專業精進                            | 1. 參與教師專業社群。                                                     |      |    |    |     |    |
|                                                 |                                     | 2. 參與教師進修與研習。                                                    |      |    |    |     |    |
|                                                 |                                     | 3. 參與共同備課、公開觀課與議課。                                               |      |    |    |     |    |

本學年教學心得分享：

未來改進具體作法說明：

填表人：

填表日期： 年 月 日

自評教師簽名：

〈表5〉 臺北市私立靜心高級中學(中學部) 114學年度 學生學習回饋單

班級：

科目：

日期：

| 回饋項目                                                         | 非常同意 | 同意 | 尚可 | 不同意 | 非常不同意 |
|--------------------------------------------------------------|------|----|----|-----|-------|
| <b>教師教學模式與策略</b>                                             |      |    |    |     |       |
| 1. 教學活動多元而適性，提供學生學習、觀察、探索、提問、反思、討論、創作與問題解決的機會，增強學習的理解、連貫和運用。 |      |    |    |     |       |
| 2. 依據學生多方面的差異，規劃適性分組、採用多元教學模式，不偏重教師單向講述式。                    |      |    |    |     |       |
| 3. 依學生不同需求提供符合的學習材料與評量方式等。                                   |      |    |    |     |       |
| 4. 指派之作業多元、適性與適量，學生可勝任。                                      |      |    |    |     |       |
| <b>班級氣氛</b>                                                  |      |    |    |     |       |
| 5. 班級氣氛正向融洽。                                                 |      |    |    |     |       |
| 6. 師生互動良好，學生樂於發表。                                            |      |    |    |     |       |
| 7. 同學互動良好，能彼此合作學習。                                           |      |    |    |     |       |
| <b>學習能力(核心素養)提升</b>                                          |      |    |    |     |       |
| 8. 課程幫助我全面思考、分析與探索的能力。                                       |      |    |    |     |       |
| 9. 課程幫助我規劃、實踐與檢討反省的能力。                                       |      |    |    |     |       |
| 10. 課程幫助我更精確掌握文字或符號表達的能力。                                    |      |    |    |     |       |
| 11. 課程幫助我運用科技、資訊與媒體識讀的能力。                                    |      |    |    |     |       |
| 12. 課程幫助我提升藝術感受、欣賞、創作與鑑賞的能力。                                 |      |    |    |     |       |
| 13. 課程幫助我對道德課題與公共議題的思考、對話及參與能力。                              |      |    |    |     |       |
| 14. 課程幫助我包容人我差異、溝通協調及團隊合作的能力。                                |      |    |    |     |       |
| 15. 課程幫助我尊重欣賞多元文化，拓展國際化視野，具備國際移動的能力。                         |      |    |    |     |       |
| <b>其他回饋與建議</b>                                               |      |    |    |     |       |
|                                                              |      |    |    |     |       |

註：各科教學研究會可依科目特性及學校特色增刪學習能力(核心素養)檢核項目。



(表6)臺北市私立靜心高級中學(中學部)114學年度 議題融入課程 教師自我 檢核表

教師姓名：

| 評鑑<br>議題       | 檢核細項              | 教師自我評鑑 |   |   |   |   | 未實施<br>請打✓ |
|----------------|-------------------|--------|---|---|---|---|------------|
|                |                   | 5      | 4 | 3 | 2 | 1 |            |
| 性別<br>平等<br>議題 | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |
| 人權<br>議題       | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |
| 環境<br>議題       | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |
| 海洋<br>議題       | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |
| 品德<br>議題       | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |
| 生命<br>議題       | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |
| 法治<br>議題       | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |
| 科技<br>議題       | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |
| 資訊<br>議題       | 1.運用多元教學資源與教學方法   |        |   |   |   |   |            |
|                | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |            |
|                | 3.有效達成學習目標        |        |   |   |   |   |            |
|                | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |            |
|                | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |            |

| 評鑑議題   | 檢核細項              | 教師自我評鑑 |   |   |   |   | 未實施 |
|--------|-------------------|--------|---|---|---|---|-----|
|        |                   | 5      | 4 | 3 | 2 | 1 |     |
| 能源議題   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 安全議題   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 防災議題   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 家庭教育   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 生涯規劃   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 多元文化   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 閱讀素養   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 戶外教育   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 國際教育   | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |
| 原住民族教育 | 1.運用多元教學資源與教學方法   |        |   |   |   |   |     |
|        | 2.學習主題符合課綱或法令相關內涵 |        |   |   |   |   |     |
|        | 3.有效達成學習目標        |        |   |   |   |   |     |
|        | 4.提供情境脈絡促進學生學習    |        |   |   |   |   |     |
|        | 5.營造反思與對話的師生互動氛圍  |        |   |   |   |   |     |

〈表7〉 臺北市私立靜心高級中學114學年度學校總體課程評鑑表

填表學校：臺北市私立靜心高中

填表時間：

| 向度                | 指標                                            | 校本檢視重點                                            | 校本發展程度                                            | 5<br>90%以上 | 4<br>80% | 3<br>70% | 2<br>60% | 1<br>60%以下 | 校本檢視重點<br>質性描述                                              | 工具證據<br>ex會議記錄、課<br>綱、學習評量表<br>等 |
|-------------------|-----------------------------------------------|---------------------------------------------------|---------------------------------------------------|------------|----------|----------|----------|------------|-------------------------------------------------------------|----------------------------------|
| 課程與<br>學校願<br>景關聯 | 1. 課程發展計畫符合總綱精神。                              | 1.1 學校總體課程發展計畫，能盤點、對應與開發新課程，以符合總綱精神。              | 總體課程發展計畫符合總綱精神的程度                                 |            |          |          |          |            | 說明：(1)課程架構學分總數符合課綱基本要求；(2)課程內容符合課綱三面九項核心素養、學習重點等。           |                                  |
|                   | 2. 課程發展計畫與學校願景具關連性。                           | 2.1 總體課程發展與學校願景具關連性。                              | 總體課程發展與學校願景關連程度                                   |            |          |          |          |            |                                                             |                                  |
| 課程發展組織與運作機制       | 3. 成立或健全課程發展組織。                               | 3.1 學校有能操作發揮實質功能的課程發展組織。                          | 學校課程發展組織充分發揮功能的程度                                 |            |          |          |          |            | 說明：如課發會、課發會下各工作小組（行政組、課程規劃組、評鑑組）各課程的共備社群領域或學科教學研究會或課程核心小組等。 |                                  |
|                   |                                               | 3.2 課程發展組織之成員能發揮課程領導與學科專業能力。                      | 課程發展組織成員能發揮課程領導與學科專業能力之程度                         |            |          |          |          |            |                                                             |                                  |
|                   | 4. 各課程發展組織之間、課程發展組織和行政單位之間，其運作機制及互動協調能發揮實質功效。 | 4.1 各課程發展組織具橫向聯繫。                                 | 課程發展組織能發揮協調功能之程度（如學科小組、共備社群、教務處課務組、與課程核心小組有跨系統協調） |            |          |          |          |            | 說明：學校具有跨課程小組或共備社群之間的對話機制或課務協調等且運作能發揮實質功效。                   |                                  |
|                   |                                               | 4.2 總體課程之發展能經各層級課程發展組織運作並依循行政程序確認。                | 落實各領域發展之課程能於校級課程發展組織中討論與確認的程度。                    |            |          |          |          |            | 說明：各領域發展之課程能於教學研究會、領域會議、課發會（或其他校級課程發展組織）中討論，並於校務會議確認。或困難說明  |                                  |
|                   |                                               | 4.3 學校行政單位能支援課程發展組織運作與執行。                         | 課程組織與行政單位之間的相互配合程度                                |            |          |          |          |            | 說明：依照各領域需求，呈報後學校行政能為課程組織提供場地、器材、經費等資源以研議課程，或提供教師社群增能活動或資源等。 |                                  |
|                   | 5. 完整記錄各層級課程發展組織之運作情形，以供後續改進參考。               | 5.1 學校各層級課程發展組織定期運作（如定期會議、講座、參訪、觀課等），並留存紀錄，供後續參考。 | 課程發展組織能定期運作且紀錄完整程度                                |            |          |          |          |            |                                                             |                                  |

|              |                                             |                                                  |                                                  |                                                                                                                                                                                                     |  |  |  |  |                                     |  |
|--------------|---------------------------------------------|--------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------|--|
| 適性課程實施<br>內涵 | 6. 總體課程目標與個別課程計畫之目標及學習內容、學習活動、評量安排等，具邏輯一貫性。 | 6.1 各學習領域(含校訂必修及多元選修等)的課程規劃，能呼應總體課程目標。           | 各學習領域(含校訂必修及多元選修等)的課程規劃能呼應總體課程目標的程度              |                                                                                                                                                                                                     |  |  |  |  |                                     |  |
|              |                                             | 6.2 各學習領域(含校訂必修及多元選修等)之目標、學習內容、學習活動與評量安排等具邏輯一貫性。 | 各學習領域課程(含校訂必修及多元選修等)之目標、學習內容、學習活動與評量安排等具邏輯一貫性的程度 |                                                                                                                                                                                                     |  |  |  |  |                                     |  |
|              |                                             | 6.3 總體課程能考量各門課程內涵間的聯繫，及各年級縱向銜接與領域間橫向統整。          | 總體課程能考量各門課程內涵間的聯繫，及各年級縱向銜接與領域間橫向統整程度             |                                                                                                                                                                                                     |  |  |  |  |                                     |  |
|              | 7. 課程內容與教學模式，能以學生為主體，符合學生多元學習需求與適性發展。       | 7.1 總體課程能依據學生的背景分析進行規劃與實施。                       | 總體課程能依據學校與學生的背景分析進行規劃，達成的程度                      |                                                                                                                                                                                                     |  |  |  |  | 說明：課程規劃必須考量學生的學習程度、學習需要、性向、未來職涯發展等。 |  |
|              |                                             | 7.2 各學習領域(含校訂必修及多元選修等)能發展素養導向相關課程，並研發相關教材。       | 各學習領域(含校訂必修及多元選修等)能發展素養導向相關課程，並研發相關教材，完成的程度      |                                                                                                                                                                                                     |  |  |  |  |                                     |  |
|              |                                             | 7.3 製作學生選課手冊                                     | 選課手冊完成程度                                         |                                                                                                                                                                                                     |  |  |  |  |                                     |  |
|              | 8. 建立教材資源共享與永續的概念。                          | 8.1 學校能發展與建立共享的教材資源平台，以支持課程永續發展。                 | 線上共享的教材資源平台充分發揮功效程度                              |                                                                                                                                                                                                     |  |  |  |  | 說明：學校雲端分享平台及運用                      |  |
|              |                                             | 8.2 舉辦全校性或領域課程分享會邀請教師、家長與學生共享與發展                 | 舉辦全校性或領域課程分享會                                    | <input type="checkbox"/> 是<br><input type="checkbox"/> 否                                                                                                                                            |  |  |  |  |                                     |  |
| 系統課程評鑑與回饋    | 9. 進行課程評鑑規劃。                                | 9.1 召開相關會議形成課程評鑑共識以提出課程評鑑計畫書。                    | 課程評鑑規劃情形，勾選已完成之項目                                | <input type="checkbox"/> 課程評鑑組織<br><input type="checkbox"/> 課程評鑑時程<br><input type="checkbox"/> 課程評鑑項目<br><input type="checkbox"/> 課程評鑑計畫書<br><input type="checkbox"/> 其他(請說明於右)                     |  |  |  |  | 說明：課程評鑑規劃可包含形成課程評鑑小組、時程與項目等。        |  |
|              | 10. 建立課程發展回饋機制，管理多元的課程評鑑結果。                 | 10.1 學校能盤點並統整多元的課程評鑑結果，並建立回饋機制。                  | 建立有效的課程發展回饋機制情形                                  | <input type="checkbox"/> 已建置課程發展回饋機制，並在使用中<br><input type="checkbox"/> 課程發展回饋機制已建置，尚在調整中<br><input type="checkbox"/> 尚未建置課程發展回饋機制<br><input type="checkbox"/> 其他(請說明於右)                             |  |  |  |  |                                     |  |
|              | 11. 善用評鑑結果增進學習成效。                           | 11.1 學校能根據總綱精神、學校願景、課程目標，檢視總體課程實施成果，並根據回饋進行課程調整。 | 檢視總體課程實施成果，並根據回饋進行課程調整情形                         | <input type="checkbox"/> 本校已檢視課程實施成果，已根據回饋調整課程。<br><input type="checkbox"/> 本校已檢視課程實施成果，正根據回饋調整課程。<br><input type="checkbox"/> 本校已檢視課程實施成果，尚無課程調整之規劃。<br><input type="checkbox"/> 本校尚未完成學校課程實施成果檢視。 |  |  |  |  |                                     |  |

|  |  |                                     |                         |                                                                                                                                                                   |  |  |
|--|--|-------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|  |  | 11.2 學校能檢視評鑑結果,分析運用,並檢討總體課程與進行教學精進。 | 根據評鑑結果檢討總體課程,規劃具體教學精進措施 | <input type="checkbox"/> 已針對評鑑結果進行總體課程檢討會議<br><input type="checkbox"/> 已針對評鑑結果進行教學精進<br><input type="checkbox"/> 已規劃時程召開相關會議進行研議<br><input type="checkbox"/> 尚未進行 |  |  |
|--|--|-------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

〈表8〉 臺北市私立靜心高中114學年度學校單一類型課程評鑑表

學校名稱：臺北市私立靜心高中 課程名稱：                    

課程類型：☐校訂必修 ☐多元選修課程 其他

課程研發與授課人員：

填表時間： 年 月 日

| 向度           | 指標                                   | 單一課程檢視重點                                      | 課程發展程度                     | 5<br>90%<br>以上                                                                                                                            | 4<br>80% | 3<br>70% | 2<br>60% | 1<br>60%<br>以下 | 質性描述<br>說明：特色、困難或對策 | 工具證據<br>EX會議記錄、課網、學習評量表等 |
|--------------|--------------------------------------|-----------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------------|---------------------|--------------------------|
| 課程與總綱、學校願景關聯 | 課程發展計畫符合總綱(領綱)精神。                    | 1. 1 單一類型課程能根據總綱(領綱)素養精神進行設計。                 | 單一類型課程之設計符合總綱精神的程度         |                                                                                                                                           |          |          |          |                |                     |                          |
|              | 2. 課程發展計畫與學校願景具關連性。                  | 2. 1 單一類型課程能根據學校願景進行設計或連結學校特色。                | 單一類型課程發展依據學校願景設計與連結學校特色之程度 |                                                                                                                                           |          |          |          |                |                     |                          |
| 課程發展組織運作機制   | 3. 成立或健全課程發展組織。                      | 3. 1 能組織建立學校或跨校之課程共備社群(或課程設計小組)               | 是否建立課程共備社群：                | <input type="checkbox"/> 有跨領域共備社群<br><input type="checkbox"/> 有領域共備社群<br><input type="checkbox"/> 沒有共備社群，請於右欄說明原因                         |          |          |          |                |                     |                          |
|              | 4. 各課程發展組織之間、課程發展組織和行政單位之間，互動協調情形良好。 | 4. 1 能安排共備社群的課程發展對話時間。                        | 共備社群進行頻率                   | <input type="checkbox"/> 每週一次<br><input type="checkbox"/> 每月一次<br><input type="checkbox"/> 每二個月一次<br><input type="checkbox"/> 其他：_____    |          |          |          |                |                     |                          |
|              |                                      | 4. 2 行政單位能協助形成跨領域課程對話。                        | 行政單位對跨領域課程發展的幫助程度          | <input type="checkbox"/> 對課程發展幫助很大<br><input type="checkbox"/> 對課程發展有點幫助<br><input type="checkbox"/> 對課程發展沒有助益                            |          |          |          |                |                     |                          |
|              |                                      | 4. 3 課程發展能運用學校內外部教學資源。                        | (1)課程共備社群是否利用學校內部資源：       | <input type="checkbox"/> 是<br><input type="checkbox"/> 否(請於右欄說明困難與對策)                                                                     |          |          |          |                | 運用哪些資源？有何助益？        |                          |
|              |                                      |                                               | (2)課程共備社群是否利用學校外部資源        |                                                                                                                                           |          |          |          |                |                     |                          |
| 適性課程實施內涵     | 5. 完整記錄課程發展之運作情形，以供後續改進參考。           | 5. 1 課程共備社群或課程設計小組能定期討論，並有紀錄留存，以供其他教師參考或後續改進。 | 是否有製作課程共備紀錄                | <input type="checkbox"/> 每次都有紀錄<br><input type="checkbox"/> 大部分共備有紀錄<br><input type="checkbox"/> 部分共備有紀錄<br><input type="checkbox"/> 沒有紀錄 |          |          |          |                |                     |                          |

|           |                                    |                                                 |                                                                                                                                                      |  |  |  |  |                                                                                  |                                                                                                         |
|-----------|------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
|           | 5.2 留存歷年教學大綱或檔案                    | 是否留存教學大綱或檔案                                     | <input type="checkbox"/> 是；<br>型式：<br><input type="checkbox"/> 文字記錄<br><input type="checkbox"/> 照片記錄<br><input type="checkbox"/> 其他（可複選）<br>年份：_____ |  |  |  |  |                                                                                  |                                                                                                         |
|           | 6. 課程目標與所建議的學習內容、學習活動、評量安排等具邏輯一貫性。 | 6.1 課程的學習內容、學習活動、評量安排等能呼應課程目標。                  | 課程的學習內容、學習活動、評量安排等能呼應課程目標的程度：                                                                                                                        |  |  |  |  |                                                                                  |                                                                                                         |
|           | 7. 課程內容與教學模式符合學生多元學習需求與適性發展。       | 7.1 課程與教學設計能考量學生學習程度、興趣與未來職涯                    | 課程與教學設計能考量學生學習程度興趣與未來職涯發展需求的程度                                                                                                                       |  |  |  |  |                                                                                  |                                                                                                         |
|           |                                    | 7.2 課程能針對學生學習成果進行評量，評量方式多元且適當（如建立評量標準(Rubrics)） | 評量方式是否多元且適當：                                                                                                                                         |  |  |  |  |                                                                                  | 請敘述評量方式                                                                                                 |
|           |                                    | 7.3 依據發展之課程與教學研發教                               | 教材研發完成程度：                                                                                                                                            |  |  |  |  |                                                                                  |                                                                                                         |
|           | 8. 建立教材資源共享與永續的概念。                 | 8.1 課程教材資源與其他教師共享。                              | <input type="checkbox"/> 教材公開跨校共享<br><input type="checkbox"/> 同校教師共享<br><input type="checkbox"/> 同領域共享<br><input type="checkbox"/> 因故無法公開共享          |  |  |  |  | 說明教材資源共享情形                                                                       |                                                                                                         |
|           |                                    | 8.2 舉辦課程分享會議或活動（如校內辦理或配合局端課程博覽會辦理）              | <input type="checkbox"/> 是<br><input type="checkbox"/> 否                                                                                             |  |  |  |  |                                                                                  |                                                                                                         |
|           | 9. 進行課程評鑑規劃。                       | 9.1 能規劃運用多元課程評鑑結果                               | 能規劃運用多元課程評鑑結果（修訂校訂必修與多元選修等）課程：                                                                                                                       |  |  |  |  | <input type="checkbox"/> 能，請於右欄說明實施方式<br><input type="checkbox"/> 不能，請於右欄說明困難或原因 |                                                                                                         |
| 系統課程評鑑與回饋 | 10. 建立課程發展回饋機制管理多元的課程評鑑結果。         | 10.1 建立學生與其它利益相關人的課程回饋意見之管道。                    | 有無建立學生與其它利益相關人的課程回饋意見之管道                                                                                                                             |  |  |  |  | <input type="checkbox"/> 有，請於右欄說明實施方式<br><input type="checkbox"/> 無，請於右欄說明困難或原因  | 說明：「利益相關人」是指參與學校課程及其組織的一員，對於課程的成功是有責任、有興趣 / 利益的人。<br>例如：發展、設計、執行或經驗課程、甚至關心課程的人，因此包含學生，某些狀況下也可能涵蓋社區成員或家長 |



|                   |                                      |                                   |                                                                                                                            |                                                                                 |  |  |
|-------------------|--------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--|--|
|                   |                                      | 10.2 能系統整理與妥善保存各類課程回饋意見。          | 有無系統整理與妥善保存各類課程回饋意見                                                                                                        | <input type="checkbox"/> 有，請於右欄說明實施方式<br><input type="checkbox"/> 無，請於右欄說明困難或原因 |  |  |
| 11. 善用評鑑結果增進學習成效。 | 11.1 能根據學生學習評量結果與提出的課程回饋意見，進行課程調整。   | 根據學生學習評量結果與提出的課程回饋意見進行課程調整情形      | <input type="checkbox"/> 課程已根據學生評量結果進行調整<br><input type="checkbox"/> 課程調整規劃尚在討論中<br><input type="checkbox"/> 學生評量結果尚在彙整分析中 |                                                                                 |  |  |
|                   | 11.2 能根據他人回饋如公開觀課、議課或共備社群討論等）進行課程調整。 | 能根據他人回饋（如公開觀課、議課或共備社群討論等）進行課程調整情形 | <input type="checkbox"/> 課程已根據他人回饋進行調整<br><input type="checkbox"/> 課程調整規劃尚在討論中<br><input type="checkbox"/> 他人回饋尚在彙整分析中     |                                                                                 |  |  |

## 二、112學年度學校課程評鑑結果

[381306\\_私立靜心高中112學年度課程評鑑結果\(PDF格式\)](#)