

## Curriculum map for 2021 freshmen

| Grade                            | Freshmen  |   | Sophomore   |  | Junior  |   | Senior               |                         |
|----------------------------------|---|---|---|--|---|---|----------------------|-------------------------|
| Semester                         | 2021 fall<br>(110-I)                                      | 2022 spring<br>(110-II)                           | 2022 fall<br>(111-I)                                      | 2023 spring<br>(111-II)  | 2023 fall<br>(112-I)  | 2024 spring<br>(112-II)                       | 2024 fall<br>(113-I) | 2025 spring<br>(113-II) |
| Compulsory courses<br>52 credits | Environmental science/<br>環境科學(2)                         | Natural science II: Chemistry/<br>自然科學 II : 化學(2) | Scientific writing/<br>科學寫作(2)                            | Exploring scientific issues:<br>methods and practices/<br>科學議題探討(3)    | Seminars on sustainable development III/<br>永續發展專題討論 III(2) | Special topics /<br>專題實作(3)                   |                      |                         |
|                                  | Presentation and communication skills/<br>簡報與溝通技巧(2)      | Introduction to social science/<br>社會科學概論(2)      | Seminars on sustainable development II/<br>永續發展專題討論 II(2) | Environmental education material and methods/<br>環境教育教材教法(2)           | Project Design and Evaluation/<br>方案設計與評估(2)                |   |                      |                         |
|                                  | Natural science I: Biology/<br>自然科學 I : 生物(2)             | Introduction to computer/<br>計算機概論(2)             | Environmental education/<br>環境教育(2)                       | Natural science III: Physics/<br>自然科學 III : 物理(2)                      |   |   |                      |                         |
|                                  | Sustainable development for the environment/<br>環境永續發展(3) | Essential mathematical skills/<br>基礎數學(2)         | Environmental ethics/<br>環境倫理(2)                          | Urban planning and sustainable development/<br>都市計畫與永續發展(2)            |   |   |                      |                         |
|                                  | Experiential learning I/<br>校園永續體驗學習 I(3)                 | Experiential learning II/<br>校園永續體驗學習 II(3)       |   | Urban planning and sustainable development practice/<br>都市計畫與永續發展實作(1) |   |   |                      |                         |
|                                  | Seminars on sustainable development I/<br>永續發展專題討論 I(2)   |   |   | Green Economy/<br>綠色經濟(2)  |   |   |                      |                         |
|                                  | total credits 14  | total credits 11                                  | total credits 8   | total credits 12   | total credits 4   | total credits 3                               | total credits 0      | total credits 0         |
| Watershed Management             |   | Introduction to watershed management/             | Environment sampling and analysis/                        | Water and wastewater treatment and reuse/                              | Applied limnology & wetland management/                     | Environmental Impact Assessment/<br>環境影響評估(2) |                      |                         |

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|                | 流域環境管理概論(2)<br>Watershed management practice/<br>流域環境管理實作(1)<br><br>Introduction to geoscience and earth history/<br>地球科學概論(2)<br><br>Applied ecology/<br>應用生態學(2)<br><br>Applied ecology practice/<br>應用生態學實作(1) | 環境採樣與分析(2)<br><br>Site planning and design/<br>場域規劃與設計(2)<br><br>Site planning and design practice/<br>場域規劃與設計實作(1)<br><br>Conservation biology/<br>保育生物學(2)<br><br>Conservation biology practice/<br>保育生物學實作(1) | 水與廢水處理及再利用(2)<br><br>Industrial pollution/<br>工業污染(2)  | 應用湖泊學與濕地管理(2)<br><br>Environmental toxicology/<br>環境毒物學(2)<br><br>Community Planning/<br>社區規劃(2)   | Recycling and waste management/<br>資源回收與廢棄物管理(2)<br><br>Environmental remediation/<br>環境污染整治(2) |                         |  |                         |
|                | total credits 0   | total credits 8  | total credits 8  | total credits 4  | total credits 6   | total credits 6         | total credits 0  | total credits 0         |
| Climate Change | Introduction to watershed management/<br>流域環境管理概論(2)<br><br>Watershed management practice/<br>流域環境管理實作(1)   | Environment sampling and analysis/<br>環境採樣與分析(2)<br><br>Introduction to Meteorology and climatology/<br>天氣與氣候學概論(2)<br><br>Climatological practices<br>氣候學實作(1)  | Mitigation and adaptation to climate change/<br>氣候變遷減緩及調適 (2)<br><br>Mitigation and adaptation to climate change/<br>氣候變遷減緩及調適實作(1)<br><br>Coastal areas, hazards, and society/<br>海岸地區之脆弱與社會議題(2) | Climate change: global challenges and local responses/<br>氣候變遷:全球挑戰與在地因應(2)<br><br>Climate change and public health/<br>氣候變遷及公共健康(2)<br><br>Climate change and health:<br>From theory to practice/ | Geographic information system (GIS)/<br>地理資訊系統(2)   |                         | Climate change resilience in practice/<br>氣候變遷脆弱度調查實作(2) |                         |

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|                        |  |   | Meteorological data analysis, forecasting and practice/<br>氣候資料分析、預測及實作(1)   | Oceanography and climate change/<br>海洋學與氣候變遷(2)<br><br>Affordable and Clean Energy/<br>可負擔之清潔能源(2)   | 氣候變遷與健康:<br>從理論到實作(1)  |                         |                      |  |
|                        | total credits 0  | total credits 3   | total credits 6  | total credits 9  | total credits 5  | total credits 2         | total credits 0      | total credits 2  |
| Community Construction | Sustainable landscape and cooperation construction/<br>永續地景與協力營造(2)<br><br>Sustainable landscape and cooperation construction practice/<br>永續地景與協力營造實作(1)<br><br>Globalization and humanistic care/<br>全球化與人文關懷(2) | Site planning and design/<br>場域規劃與設計(2)<br><br>Site planning and design practice/<br>場域規劃與設計實作(1)<br><br>Becoming a changemaker: Introduction to social innovation/<br>成為創變客：談社會革新概論(2) | Sociology of food and agriculture/<br>食農社會學(2)<br><br>Sociology of food and agriculture practice/<br>食農社會學實作(1)<br><br>Indigenous economic development strategy/<br>原住民經濟發展策略(2)<br><br>Coastal areas, hazards, and society/ | Climate change and public health/<br>氣候變遷及公共健康(2)<br><br>Climate change and health: From theory to practice/<br>氣候變遷與健康：從理論到實作(1)<br><br>Ecotourism: challenges and opportunities<br>生態旅遊之挑戰與機會(2)<br><br>Community Planning/<br>社區規劃(2) | Cultural and natural heritage conservation/<br>文化與自然資產保存(2)<br><br>Recycling and waste management/<br>資源回收與廢棄物管理(2)<br><br>Human rights and sustainable development/<br>人權與永續發展(2) |                         |                      | Climate change resilience in practice/<br>氣候變遷脆弱度調查實作(2) |

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|                       |   |  |   | 海岸地區之脆弱與社會議題(2)         |                                       |  |  |                         |
|                       | total credits 0   | total credits 5                                      | total credits 5   | total credits 7         | total credits 7                       | total credits 6  | total credits 0                              | total credits 2         |
| IPSD Elective courses |   | Environmental Law and Sustainability/<br>環境法與可持續性(2) | Environmental Leadership and Consciousness Development/<br>環境領導和意識發展(2) |                         | Sustainability marketing/<br>市場永續性(2) | Plants and Landscape/<br>植栽與地景(2)                          | Roots & Shoots Internship I/<br>根與芽行動實習 I(9) |                         |
|                       |   |  | Computer aid design/<br>電腦輔助設計(2)                                       |                         |                                       | Green Building Principles and Practices/<br>綠建築原則與實務(2)    |  |                         |
|                       |   |  |   |                         |                                       | Environmental Security and Sustaining Peace/<br>環境安全與和平(2) |  |                         |
|                       |   |  |   |                         |                                       | Behavior-Based Safety and Life/<br>行為安全與生活(2)              |  |                         |
|                       | Practice and Education for the Environment I / 環境教育國際實驗微學分 I (1)<br>Practice and Education for the Environment II / 環境教育國際實驗微學分 II (1)<br>Roots & Shoots Deep Bowl credit / 根與芽深碗學分 (2)<br>Basic Roots & Shoots Deep Bowl credit / 根與芽初階深碗課程 (1)<br>Interdisciplinary Microcredit Course I / 跨領域微學分 I (1)<br>Interdisciplinary Microcredit Course II / 跨領域微學分 II (1)<br>Interdisciplinary Microcredit Course III / 跨領域微學分 III (1) |  |   |                         |                                       |  |  |                         |

Compulsory credits

52

Credits from 1 modules

16 (the overlapped credits between 1 modules must be deducted)

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|----------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|
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IPSD elective credits                          45~60 (should include the deducted overlapped credits from modules)

Non-IPSD credits                          15

Graduate credits                          128