Curriculum map for 2019 freshmen

Grade	Freshmen		Sophomore		Junior		Senior	
Semester	2022 fall (111-I)	2023 spring (111-II)	2023 fall (112-I)	2024 spring (112-II)	2024 fall (113-I)	2025 spring (113-II)	2025 fall (114-I)	2026 spring (114-II)
Compulsory courses 61 credits	Environmental science/ 環境科學(2) Presentation and Communication skills 簡報與溝通技巧(2) Environmental ethics/ 環境倫理(2) Sustainable development for the environment/ 環境永續發展(3) Experiential learning I/ 校園永續體驗學習 I(3) Seminars on sustainable development I/ 永續發展專題討論 I(2)	Natural science Ⅰ: Chemistry/ 自然科學Ⅰ：化學(2) Introduction to social science/ 社會科學概論(2) Introduction to computer/ 計算機概論(2) Essential mathematical skills/ 基礎數學(2) Experiential learning II/ 校園永續體驗學習 II(3)	Scientific writing/ 科學寫作(2) Seminars on sustainable development II/ 永續發展專題討論 II(2) Environmental education/ 環境教育(2) Natural science Ⅱ: Physics/ 自然科學Ⅱ：物理(2)	Exploring scientific issues: methods and practices/ 科學議題探討(3) Environmental education material and methods/ 環境教育教材教法(2) Green Economy/ 綠色經濟(2) Urban planning and sustainable development/ 都市計畫與永續發展(2) Urban planning and sustainable development practice/ 都市計畫與永續發展實作(1) Project Design and Evaluation/ 方案設計與評估(2)	Seminars on sustainable development III/ 永續發展專題討論 III(2) Special topics / 專題實作(3)		Roots & Shoots Internship I/ 根與芽行動實習 I(9)	
	total credits 14	total credits 11	total credits 8	total credits 12	total credits 4	total credits 3	total credits 9	total credits 0
Watershed Management		Introduction to watershed management/ 流域環境管理概論(2)	Environment sampling and analysis/ 環境採樣與分析(2)	Water and wastewater treatment and reuse/ 水與廢水處理及再利用(2)	Applied limnology & wetland management/ 應用湖泊學與濕地管理(2)	Environmental Impact Assessment/ 環境影響評估(2)		

Grade	Freshmen		Sophomore		Junior		Senior	
Semester	2022 fall (111-I)	2023 spring (111-II)	2023 fall (112-I)	2024 spring (112-II)	2024 fall (113-I)	2025 spring (113-II)	2025 fall (114-I)	2026 spring (114-II)
		Watershed management practice/ 流域環境管理實作(1) Introduction to geoscience and earth history/ 地球科學概論(2) Applied ecology/ 應用生態學(2) Applied ecology practice/ 應用生態學實作(1)	Site planning and design/ 場域規劃與設計(2) Site planning and design practice/ 場域規劃與設計實作(1) Conservation biology/ 保育生物學(2) Conservation biology practice/ 保育生物學實作(1)	Industrial pollution/ 工業污染(2)	Environmental toxicology/ 環境毒物學(2) Community Planning/ 社區規劃(2)	Recycling and waste management/ 資源回收與廢棄物管理(2) Environmental remediation/ 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 and Adaptation		Introduction to watershed management/ 流域環境管理概論(2) Watershed management practice/ 流域環境管理實作(1)	Environment sampling and analysis/ 環境採樣與分析(2) Introduction to Metorology and climatology/ 天氣與氣候學概論(2) Clomatological practices 氣候學實作(1) Meteorological data analysism, forecasting and	Mitigation and adaptation to climate change/ 氣候變遷減緩及調適 (2) Mitigation and adaptation to climate change/ 氣候變遷減緩及調適實作(1) Coastal areas, hazards, and society/ 海岸地區之脆弱與社會議題(2) Oceanography and climate change/	Climate change: global challenges and local responses/ 氣候變遷:全球挑戰與在地因應(2) Climate change and public health/ 氣候變遷及公共健康(2) Climate change and health: From theory to practice/ 氣候變遷與健康:從理論到實作(1)	Geographic information system (GIS)/ 地理資訊系統(2)		Climate change resilience in practice/ 氣候變遷脆弱度調查實作(2)

Grade	Freshmen		Sophomore		Junior		Senior	
Semester	2022 fall (111-I)	2023 spring (111-II)	2023 fall (112-I)	2024 spring (112-II)	2024 fall (113-I)	2025 spring (113-II)	2025 fall (114-I)	2026 spring (114-II)
			practice/ 氣候資料分析、預測及實作(1)	海洋學與氣候變遷(2) Affordable and Clean Energy/ 可負擔之清潔能源(2)				
	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 Development		Sustainable landscape and cooperation construction/ 永續地景與協力營造(2) Sustainable landscape and cooperation construction practice/ 永續地景與協力營造實作(1) Globalization and humanistic care/ 全球化與人文關懷(2)	Site planning and design/ 場域規劃與設計(2) Site planning and design practice/ 場域規劃與設計實作(1) Becoming a changemaker: Introduction to social innovation/ 成為創變客：談社會革新概論(2)	Sociology of food and agriculture/ 食農社會學(2) Sociology of food and agriculture practice/ 食農社會學實作(1) Indigenous economic development strategy/ 原住民經濟發展策略(2) Coastal areas, hazards, and society/ 海岸地區之脆弱與社會議題(2)	Climate change and public health/ 氣候變遷及公共健康(2) Climate change and health: From theory to practice/ 氣候變遷與健康: 從理論到實作(1) Ecotourism: challenges and opportunities 生態旅遊之挑戰與機會(2) Community Planning/ 社區規劃(2)	Cultural and natural heritage conservation/ 文化與自然資產保存(2) Recycling and waste management/ 資源回收與廢棄物管理(2) Human rights and sustainable development/ 人權與永續發展(2)		Climate change resilience in practice/ 氣候變遷脆弱度調查實作(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/ 環境法與可持續性(2)	Environmental Leadership and Consciousness Development/	Computer aid design/ 電腦輔助設計(2)	Sustainability marketing/ 市場永續性(2)	Green Building Principles and Practices/ 綠建築原則與實務(2)		

Grade	Freshmen		Sophomore		Junior		Senior	
Semester	2022 fall (111-I)	2023 spring (111-II)	2023 fall (112-I)	2024 spring (112-II)	2024 fall (113-I)	2025 spring (113-II)	2025 fall (114-I)	2026 spring (114-II)
			環境領導和意識發展(2)					
					Plants and Landscape/ 植栽與地景(2)	Environmental Security and Sustaining Peace/ 環境安全與和平(2)		
						Behavior-Based Safety and Life/ 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) Practice and Education for the Environment II / 環境教育國際實驗微學分 II (1) Roots & Shoots Deep Bowl credit / 根與芽深碗學分 (2) Basic Roots & Shoots Deep Bowl credit / 根與芽初階深碗課程 (1) Interdisciplinary Microcredit Course I / 跨領域微學分 I (1) Interdisciplinary Microcredit Course II / 跨領域微學分 II (1) Interdisciplinary Microcredit Course III / 跨領域微學分 III (1)							

Compulsory credits	59
Credits from 1 modules	16 (the overlapped credits between 1 modules must be deducted)
IPSD elective credits	38~53 (should include the deducted overlapped credits from modules)
Non-IPSD credits	15
Graduate credits	128