

112學年度日間部 土木工程與環境資源管理系 四技課程規劃表

第一學年(112)					第二學年(113)					第三學年(114)					
	科目	上學期		下學期		科目	上學期		下學期		科目	上學期		下學期	
		學分	時數	學分	時數		學分	時數	學分	時數		學分	時數	學分	時數
校必修	體育	1	2	1	2	分類通識	2	2	2	2					
	分類通識	2	2	2	2	分類通識	2	2							
	分類通識	2	2	2	2										
	小計	5	6	5	6	小計	4	4	2	2	小計				
院必修	微積分(一)(二)	3	3	3	3	科技英文(三)(四)	2	2	2	2					
	物理(一)(二)	2	2	2	2	工程倫理	2	2							
	科技英文(一)(二)	2	2	2	2										
	應用中文(一)(二)	2	2	2	2										
	程式設計	2	2												
	人工智慧概論			2	2										
小計	11	11	11	11	小計	4	4	2	2	小計					
專業必修	土壤專業概論	2	2			應用數學	3	3			土木工程	3	3		
	測量與實習	3	3			混凝土配比與實務	3	3			鋼筋混凝土	3	3		
	電腦繪圖(一)			3	3	工程力學	3	3			土壤力學與實驗	3	3		
	土木材料與實驗			3	3	工程識圖			3	3	工程估價			3	3
						建築BIM建模			3	3	營建管理			3	3
						結構學			3	3	基礎工程與實務			3	3
小計	5	5	6	6	小計	9	9	9	9	實務專題			1	1	
專業選修						環境工程	3	3			施工安全			3	3
						電腦繪圖(二)	3	3			小計	9	9	13	13
						環境生態學	3	3			工程災害與防治	3	3		
						永續發展與環境教育	3	3			職業安全衛生法規	3	3		
						工程測量實務	3	3			無人機空拍操作實務	3	3		
						水文學	3	3			BIM應用與管理	3	3		
						地理資訊系統實務			3	3	土壤職能實務(一)	2	2		
						水土保持工程			3	3	環境資源規劃	2	2		
						水污染防治			3	3	交通工程	2	2		
						生態工程			3	3	營建法規	3	3		
						環境資源管理			3	3	工址調查實務			3	3
						景觀設計與實務			2	2	工程品質管理與實務			3	3
						專業管理			3	3	非破壞檢測實務			3	3
											橋樑工程			3	3
											下水道工程學			3	3
											工程污染防治			3	3

第四學年(115)					
	科目	上學期		下學期	
		學分	時數	學分	時數
校必修					
	小計				
院必修					
	小計				
專業必修	實務專題	1	1		
	小計	1	1	0	0
專業選修	校外實習	9	9	9	9
	環境影響評估	3	3		
	營造工程規劃設計	3	3		
	山坡地工程	3	3		
	鋼結構工程	3	3		
	土壤職能實務(二)	2	2		
	土地資源開發與管理	3	3		
	工程法律			3	3
水資源工程			3	3	
工程採購與發包			3	3	
資源再生			3	3	

專業選修課程開課規劃	
學期	時數
第一學年第一學期	0
第一學年第二學期	0
第二學年第一學期	6
第二學年第二學期	6
第三學年第一學期	6
第三學年第二學期	6
第四學年第一學期	5
第四學年第二學期	0
開課時數總計	29

科目類別：
 共同科目：體育
 通識科目：分類通識
 專業科目：院必修、專業必修、專業選修

項目	學分	時數
校必修	16	18
院必修	28	28
專業必修	52	52
專業選修	32	32
合計	128	130

注意事項：

- 本校訂有學生基本能力與畢業門檻實施辦法。
- 學生需修習勞作教育(0學分4小時)，並於第一學年上下二學期實施。
- 一~三年級每學期應修習16-30學分，四年級每學期應修習9-30學分。
- 最低畢業學分：128 學分；必修學分：96學分。
選修學分：32學分(選修學分含跨系選修學分)；惟於本系專業選修學分不得低於20學分。
- 畢業年級相當於國內高級中等學校二年級之國外或香港、澳門同類同級學校畢業生，以同等學歷修讀本校學士學位者，最低畢業學分：140學分；必修學分：96學分；
選修學分：44學分(選修學分含跨系選修學分)，惟於本系專業選修學分不得低於32學分，可延長修業年限三年。
- 學生若修習校外實習課程，相關辦法依「本校土木工程與環境資源管理系學生校外實習教學實施要點」辦理。
- 表列選修課程僅供參考，依實際狀況調整。

副教授 廖淑容

土環系主任 陳鴻輝

工程學院院長 張合

MUST Curriculum Planning for Undergraduate Students for Academic Years 2023-2026
Department of Civil Engineering and Environmental Informatics

1 st year(112)						2 nd year(113)						3 rd year(114)							
	Course	1 st semester		2 nd semester			Course	1 st semester		2 nd semester			Course	1 st semester		2 nd semester			
		Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.		
MUST Core Required Courses	Physical Education	1	2	1	2	MUST Core Required Courses	Classified general Education	2	2	2	2	MUST Core Required Courses							
	Classified general Education	2	2	2	2		Classified general Education	2	2										
	Classified general Education	2	2	2	2														
	Subtotal	5	6	5	6		Subtotal	4	4	2	2		Subtotal	0	0	0	0		
School Professional Required Courses	Calculus(I)(II)	3	3	3	3	School Professional Required Courses	Technical English(III)(IV)	2	2	2	2	School Professional Required Courses							
	Physics(I)(II)	2	2	2	2		Ethics for Engineers	2	2										
	Technical English(I)(II)	2	2	2	2														
	Applied Chinese(II)	2	2	2	2														
	Introduction to Computers and Programming	2	2																
	Introduction to artificial intelligence			2	2														
	Subtotal	11	11	11	11		Subtotal	4	4	2	2		Subtotal	0	0	0	0		
Department compulsory courses	Introduction to Civil Engineering & Environment and Resources	2	2			Department compulsory courses	Applied Mathematics	3	3			Department compulsory courses	Civil Engineering Construction	3	3				
	General Surveying & Lab	3	3				Concrete Mix Design	3	3				Reinforced Concrete	3	3				
	Computer Aided Drafting(I)			3	3		Engineering Mechanics	3	3				Soil Mechanics & Lab	3	3				
	Civil Engineering Materials & Practice			3	3		Illustration of Engineering Drawings			3	3		Construction Cost Estimating			3	3		
							Practice and Concept of BIM			3	3		Construction Management			3	3		
							Structure Analysis			3	3		Foundation Engineering & Practice			3	3		
	Subtotal	5	5	6	6		Subtotal	9	9	9	9		Special Topic Projects			1	1		
Department Elective Courses						Department Elective Courses	Environmental Engineering	3	3			Department Elective Courses	Construction Safety Measures			3	3		
							Computer Aided Drafting(II)	3	3				Natural Hazard Mitigation	3	3				
							Environmental Ecology	3	3				Occupational Safety and Health Regu	3	3				
							Sustainable Development and Environmental Education	3	3				UAV Operation Practice	3	3				
							Engineering Surveying Practice	3	3				Application and Management of BIM	3	3				
							Hydrology	3	3				Engineering Practical Training (I)	2	2				
							Geographic Information System			3	3		Environmental and Resources Manag	2	2				
							Water and Soil Conservation Engineering			3	3		Traffic Engineering	2	2				
							Water Pollution Control			3	3		Construction Laws	3	3				
							Ecological Engineering			3	3		Construction Site Investigation			3	3		
							Environmental and Resources Management			3	3		Engineering Quality Management			3	3		
							Landscape Design & Practice			2	2		Practice of Non-destructive Testing			3	3		
							Practical project management			3	3		Bridge Engineering			3	3		
													Sewer Engineering			3	3		
										Engineering Pollution Control			3	3					
										Sustainable Building			3	3					
										Practice of Intelligent Environmental Monitoring			3	3					
										Practice of Soil Improvement			3	3					
										National land use plan and urban-rural planning			3	3					
										Engineering Geology			3	3					

Cr./hr.=Credit/hour

Remarks:

- According to university regulations, students are required to meet the graduation requirement of basic language proficiency and professional skills.
- Students shall take 4 hours Service Education courses (0 credits) in the first and second semester of the first academic year.
- In the first three years, students must take 16-30 credits per semester, and 9-30 credits per semester in the 4th year.
- Minimum credits required for graduation: 128 credits including 96 compulsory credits, and at least 32 elective credits (interdepartmental credits are included), while elective professional course credits shall not be fewer than 20.
- Students having graduated from a foreign country, including Hong Kong and Macau, with the equivalent of the second year of high school study of the ROC's high school sophomore level, or with a high school equivalent degree, need to take 140 credits including 96 compulsory credits, and at least 44 elective credits (including inter-departmental elective credits), while elective professional course credits shall not be fewer than 32. The program can be extended up to 3 academic years.
- Students should take off-campus internship courses, and the relevant measures are handled in accordance with the Implementation of Off-campus Internship Teaching for Students in the Department of "Civil Engineering and Environmental Informatics".
- Elective courses are subject to change if necessary.

副教授廖淑容

土環系主任陳鴻輝

工程學院院長張合

4 th year(115)					
	Course	1 st semester		2 nd semester	
		Cr.	hr.	Cr.	hr.
MUST Core Required Courses	Subtotal	0	0	0	0
School Professional Required Courses	Subtotal	0	0	0	0
Department compulsory courses	Special Topic Projects	1	1		
	Subtotal	1	1	0	0
Department Elective Courses	Off-Campus Practice Training	9	9	9	9
	Environmental Impact Assessment	3	3		
	Construction Planning and Design	3	3		
	Sloped Land Engineering	3	3		
	Steel Structure Construction	3	3		
	Engineering Practical Training (II)	2	2		
	Land resource development and Engineering Law	3	3	3	3
	Water Resource Engineering			3	3
	Project Procurement & Contract Award			3	3
	Greenhouse Gas Evaluation			3	3