

113學年度水資源及環境工程學系課程規畫表(113學年度入學新生適用)
Department of Water Resources and Environmental Engineering
Curriculum Planning Chart for 113 academic year (2024-2025) incoming freshmen

科目名稱 /subjects		學分 credits	第 1 學年		第 2 學年		第 3 學年		第 4 學年		備註 Remarks	
			1st academic year		2nd academic year		3rd academic year		4th academic year			
			上 1st semester	下 2nd semester	上 1st semester	下 2nd semester	上 1st semester	下 2nd semester	上 1st semester	下 2nd semester	上 1st semester	下 2nd semester
基本知能課程12學分 12 credits for general education curriculum	外國語文學門(Q) Foreign Language (Field Q)	8	2	2	2	2					大1英文必修、大2外文自由選 Required English in freshman year; elective foreign language in sophomore year.	
	中國語文能力表達 ABILITY OF EXPRESSING IN SPOKEN AND WRITTEN CHINESE	2									語文表達 ABILITY OF EXPRESSING	
	大學學習 LEARNING IN UNIVERSITY	1	1								學習與發展學門(N) Learning And Development (Field N)	
	社團學習與實作(K) LEARNING AND PRACTICE OF CLUBS	1		1							課外活動與團隊發展 Extracurricular Activities and Team-Ship Development (Field	
通識核心課程12學分 12 credits for General Education Curriculum	AI與程式語言 AI and Programmiing Language	1	1									
	探索永續 Exploring Sustainability	1	1									
	文學經典學門(L) Classics In World Literature (Field L)	2									人文領域 至少2學分 At least 2 credits in the Humanitie s field.	每學門至多修習2科4學分 Students may take up to 2 courses (4 credits) in each academic field.
	歷史與文化學門(P) History And Culture (Field P)	2										
	哲學與宗教學門(V) Philosophy and Religion (Field V)	2										
	藝術欣賞與創作學門(M) Arts Appreciation and Invention (Field M)	2										
	全球視野學門(T) Global Outlook (Field T)	2									社會領域 至少2學分 At least 2 credits in the Social Sciences field.	
	未來學學門® Futures Studies (Field R)	2										
	社會分析學門(W) Social Analysis (Field W)	2										
	公民社會及參與學門(S) Civil Society And Participation (Field S)	2										
	資訊教育學門(O) Information & Computer Education (Field O)	2									科學領域 至少2學分 At least 2 credits in the Science field.	
	*商管學院學生請另詢所屬學系 Students of the College of Business Management, please consult your respective departments.											
	全球科技革命學門(Z) Global Technology Revolution (Field Z)	2										
自然科學學門(U) Natural Sciences (Field U)	2											
其他課程 other subjects	體育 Physical Education	4	1	1	1	1					不計入畢業學分 Not counted toward graduation credits.	
	全民國防教育軍事訓練(一)-國防科技 ALL-OUT DEFENSE EDUCATION MILITARY TRAINING(I)-NATIONAL DEFENSE TECHNOLOGY	0									1年級；單學期0學分 First-year; zero credits in a single semester.	
校園與社區服務學習 CAMPUS AND COMMUNITY SERVICE-LEARNING		2	1	1							不計入畢業學分 Not counted toward graduation credits.	
■本系必修課程：58學分 Required Courses：58 credits	普通物理 GENERAL PHYSICS	2	2									
	微積分 CALCULUS	3	3									
	環境化學 ENVIRONMENTAL CHEMISTRY	3	3									
	水資源及環境工程概論 INTRORODUCTION TO WATER RESOURCES AND ENVIRONMENTAL ENGINEERING	2	2									
	基礎工程數學 BASIC ENGINEERING MATHEMATICS	3		3								
	水文學 HYDROLOGY	3		3								
	應用力學 APPLIED MECHANICS	3		3								
	水質實驗 WATER QUALITY ANALYSIS	1		1							實驗課程 Laboratory course	
	工程數學 ENGINEERING MATHEMATICS	6			3	3						

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	流體力學(一) FLUID MECHANICS(I)	3			3								
	工程統計 ENGINEERING STATISTICS	3			3								
	流體力學(二) FLUID MECHANICS(II)	3				3							
	工程圖學 ENGINEERING GRAPHICS	2				2							
	給水工程 WATER SUPPLY ENGINEERING	3				3							
	明渠水力學 HYDRAULICS AND OPEN CHANNELS	3					3						
	污水工程 WASTEWATER ENGINEERING	3					3						
	土壤力學 SOIL MECHANICS	3					3						
	流體力學實驗 FLUID MECHANICS LAB.	1					1				實驗課程 Laboratory course		
	數值方法 NUMERICAL METHOD	3						3					
	水資源工程 WATER-RESOURCES ENGINEERING	3						3					
	專題實作 PRACTICE OF PROJECTS	2						2					
	■本系系選修課程：至少須修24學分以上。 Department Elective Courses: A minimum of 24 credits must be completed. 附註： 系選修課程之開設科目，將依據本校規定可開課學分數開課。不是每個科目都會開課。 Note: The elective courses offered by the department will be arranged based on the number of credits permitted under the university's regulations. Not all listed courses will necessarily be offered.	工程經濟學 ENGINEERING ECONOMICS	2	2									
		水環境生態學 WATERSHED ECOLOGY AND THE ENVIRONMENT	2	2									
工程材料學 ENGINEERING MATERIALS		2	2										
程式設計 PROGRAM DESIGN		2		2									
環境微生物學 ENVIRONMENTAL MICROBIOLOGY		3		3									
環境永續概論 INTRODUCTION TO ENVIRONMENTAL SUSTAINABILITY		2		2									
材料力學 STRENGTH OF MATERIALS		3			3								
水文測量與實習 PRACTICE & SURVEY OF HYDROLOGY		2			2								
環境土壤學 ENVIRONMENTAL SOIL SCIENCE		2			2								
環境毒物學 ENVIRONMENTAL TOXICOLOGY		2			2								
環境污染物分析(一) ENVIRONMENTAL ANALYSIS(I)		1			1						實驗課程 Laboratory course		
中等水文學 INTERMEDIATE HYDROLOGY		3				3							
結構學 STRUCTURAL THEORY		2				2							
環境生物技術概論 INTRODUCTION TO ENVIRONMENTAL BIOTECHNOLOGY		2				2							
循環經濟 CIRCULAR ECONOMY		2				2							
水利工程應用軟體 HYDRAULIC MODELING SOFTWARES		2					2						
鋼筋混凝土 REINFORCED CONCRETE		3					3						
固體廢棄物 SOLID WASTES TREATMENT		3					3						
環境儀器分析 ENVIRONMENTAL INSTRUMENTAL ANALYSIS		2					2						
環境污染物分析(二) ENVIRONMENTAL ANALYSIS(II)		1					1				實驗課程 Laboratory course		
水資源規劃 WATER RESOURCES PLANNING		3						3					
基礎工程 FOUNDATION ENGINEERING		3						3					

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	防洪工程 FLOOD ENGINEERING	2						2				
	渠道水力學實驗 OPEN CHANNEL HYDRAULICS EXPERIMENTS□	1						1			實驗課程 Laboratory course	
	空氣污染控制 AIR POLLUTION CONTROL	3						3				
	有害廢棄物 HAZARDOUS WASTE	2						2				
	資源回收再利用 RESOURCE RECOVERY AND REUSE	2						2				
	灌溉及排水工程 IRRIGATION AND DRAINAGE ENGINEERING	2							2			
	環境規劃與管理 ENVIRONMENTAL PLANNING AND MANAGEMENT	3							3			
	環工專業實務設計 PRACTICAL DESIGN IN ENVIRONMENTAL ENGINEERING FIELD	2							2			
	污水工程設計 WASTEWATER ENGINEERING DESIGN	2							2			
	地理資訊在工程上之應用 GIS AND ITS ENGINEERING APPLICATION□	2							2			
	地下水及土壤污染 GROUNDWATER AND SOIL POLLUTION	3							3			
	企業實習 PRACTICUM IN EDUCATIONAL TECHNOLOGY	2							2			
	海岸工程 COASTAL ENGINEERING	3								3		
	水土保持工程 SOIL AND WATER RESERVATION ENGINEERING	2								2		
	企業永續管理 SOIL AND WATER RESERVATION ENGINEERING	2								2		
	噪音及振動 NOISE AND VIBRATION CONTROL	2								2		

(1)必修科目總學分數：82學分(含通識教育課程24學分)

(1)Total Credits for Required Courses: 82 credits (including 24 credits in General Education courses)

(2)最低應修本系選修科目總學分數：24學分

(2)Minimum Credits Required for Departmental Elective Courses: 24 credits

(3)其他選修總學分數：22學分

(3)Minimum Number of Credits Required for Other Elective Courses: 22 credits

畢業總學分數：128學分

Total Number of Credits Required for Graduation: 128 credits