112學年度水資源及環境工程學系環境工程組課程規畫表(112學年度人學新生適用) Division of Environmental Engineering, Department of Water Resources and Environmental Engineering Curriculum Planning Chart for 112 academic year (2023-2024) incoming freshmen

	Carriourum Trannin								*** 4	eta Ive		
科目名稱 /subjects			第1學年 1st academic year		第2學年 2nd academic year		第3學年 3rd academic year		第4學年 4th academic year		備註 Remarks	
		學分 credit										
		S	上	下	上	下	上	下	上	下		
			1st semester	2nd semester	1st semester	2nd semester	lst semester	2nd semester	1st semester	2nd semester		
			Joine J. C.	DOMEST CT	Joine J. C.	Joine J. C.	Joine J. C.	DOMEST CT	Bome B CO	Joine J. C.	大1英文必	修、大2外文自由選
	外國語文學門(Q) Foreign Languagae (Field Q) 中國語文能力表達	8	2	2	2	2					Required English in freshman year; elective foreign language in sophomore year. 語文表達	
基本知能課程12學分	ABILITY OF EXPRESSING IN SPOKEN AND WRITTEN CHINESE	2										F EXPRESSING
12 credits for general education curriculum	大學學習										學習與發展	長學門(N)
caacatron carricaram	LEARNING IN UNIVERSITY	1	1								Learning ((Field N)	And Development
											課外活動與	!團隊發展
	社團學習與實作(K)	1		1								cular Activities
	LEARNING AND PRACTICE OF CLUBS									(Field K)	Ship Development	
通識核心課程14學分	AI與程式語言	1	1									
14 credits for General Education Curriculum	AI and Programmiing Language	1	1								↓	
Education Culticulum	探索永續 Exploring Sustainabiltiy	1	1									
	文學經典學門(L)											
	Classics In World Literature (Field L)	2									At least 2 Credits in the 4學分	每學門至多修習2科 4學分 Students may take up to 2 courses (4 credits) in each academic
	歷史與文化學門(P)	2										
	History And Culture (Field P)	Z										
	哲學與宗教學門(V) Philosophy and Religion (Field	2										
	V)											
	藝術欣賞與創作學門(M) Arts Appreciation and	2										
	Invention (Field M)											
	全球視野學門(T) Global Outlook (Field T)	2										
	未來學學門®	2										
	Futures Studies (Field R)	Z										
	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(0)											
	Information & Computer Education (Field 0)	2										
	*商管學院學生請另詢所屬學系	_										
	Students of the College of 全球科技革命學門(Z)											
	Global Technology Revolution	2										
	(Field Z)											
	自然科學學門(U) Natural Sciences (Field U)	2										
	體育											<u>I</u>
	Physical Education	0	0	0	0	0						
其他課程 other subjects	全民國防教育軍事訓練(一)-國											
	防科技 ALL-OUT DEFENSE EDUCATION	0									1年級;單	學期0學分 r; zero credits in
	MILITARY TRAINING(I)-NATIONAL	U									a single	
校園與社區服務學習	DEFENSE TECHNOLOGY											
CAMPUS AND COMMUNITY SERV	ICE-LEARNING	0	0	0								
■本系必修課程: 72 學分	普通物理											
Required Courses: 72	GENERAL PHYSICS	4	2	2							<u> </u>	
credits	微積分 CALCULUS	3	3									
	環境化學(一)	2	2	 				 			†	
	ENVIRONMENTAL CHEMISTRY(I) 工程圖學			1	-	-	-	1	-		+	
	工任画学 ENGINEERING GRAPHICS	2	2								<u> </u>	
	環境永續概論	2		2								
	INTRODUCTION TO ENVIRONMENTAL SUSTAINABILITY	Z		2								
	環境化學(二)	2		2								
	ENVIRONMENTAL CHEMISTRY (II) 環境微生物學										+	
	ENVIRONMENTAL MICROBIOLOGY	3		3							<u> </u>	
	應用力學 APPLIED MECHANICS	3		3								
	環境污染物分析(一)	1		1	Ī						實驗課程	
	ENVIRONMENTAL ANALYSIS(I)	1		1]]		Laborator	y course

112學年度水資源及環境工程學系環境工程組課程規畫表(112學年度人學新生適用) Division of Environmental Engineering, Department of Water Resources and Environmental Engineering Curriculum Planning Chart for 112 academic year (2023-2024) incoming freshmen

Curriculum Planning		g Chart					_				<u> </u>
科目名稱 /subjects		學分	上下		第2學年 2nd academic year 上 下		第3學年 3rd academic year 上 下		第4學年 4th academic year 上 下		備託 Remarks
		credit s									
	should be seen		1st semester	2nd semester	1st semester	2nd semester	lst semester	2nd semester	1st semester	2nd semester	
	流體力學(一) FLUID MECHANICS(I)	3			3						
	環境土壤學 ENVIRONMENTAL SOIL SCIENCE	3			3						
	環境污染物分析(二)	1			1						實驗課程
	ENVIRONMENTAL ANALYSIS(II) 工程統計(一)										Laboratory course
	ENGINEERING STATISTICS(I)	2			2						
	工程數學 ENGINEERING MATHEMATICS	6			3	3					
	工程統計(二) ENGINEERING STATISTICS(II)	2				2					
	流體力學(二)	3				3					
	FLUID MECHANICS II 給水工程										
	WATER SUPPLY ENGINEERING	3				3					777 EA YO 417
	流體力學實驗 FLUID MECHANICS LAB.	1					1				實驗課程 Laboratory course
	水文學 HYDROLOGY	3					3				
	污水工程	3					3				
	WASTEWATER ENGINEERING 空氣污染概論			-						-	
	INTRODUCTION TO AIR POLLUTION	2					2				
	固體廢棄物 SOLID WASTES TREATMENT	3					3				
	專題實作(一)	2					2				
	PRACTICE OF PROJECTS (I) 專題實作(二)	2						2			
	PRACTICE OF PROJECTS (II) 空氣污染控制										
	AIR POLLUTION CONTROL	3						3			
	電子計算機工程應用 ENGINEERING APPLICATION OF COMPUTERS	3						3			
	專題實作(三) PRACTICE OF PROJECTS (III)	2							2		
	環境規劃與管理 ENVIRONMENTAL PLANNING AND MANAGEMENT	3							3		
■本系系選修課程:至少須修10學分以上。	環境生態學 ENVIRONMENTAL ECOLOGY	2	2								
Department Elective Courses: A minimum of 10 credits must be	全球環境議題 GLOBAL ENVIRONMENTAL ISSUES	2	2								
completed.	環境毒物學 ENVIRONMENTAL TOXICOLOGY	2			2						
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.	工程材料學 ENGINEERING MATERIALS	2				2					
	環境污染物分析(三) ENVIRONMENTAL ANALYSIS (III)	1					1				實驗課程 Laboratory course
	有害廢棄物 HAZARDOUS WASTE	2						2			
	環境經濟學 Environmental Economics	2						2			
	環境生物技術概論 INTRODUCTION TO ENVIRONMENTAL BIOTECHNOLOGY	2						2			
	循環經濟 CIRCULAR ECONOMY	2						2			
	CAROLIN LOOKONII										這門課開設於水環系水資源工程 組
	企業實習 PRACTICUM IN EDUCATIONAL TECHNOLOGY	2							2		This course is offered by the Division of Water Resources Engineeriing, Department of Water
	地下水及土壤污染 GROUNDWATER AND SOIL POLLUTION 噪音及振動	4							4		這門課開設於水環系水資源工档 組 This course is offered by the Division of Water Resources Engineeriing, Department of Water Resources and Environmental
	NOISE AND VIBRATION CONTROL	2							2		

112學年度水資源及環境工程學系環境工程組課程規畫表(112學年度入學新生適用)

Division of Environmental Engineering, Department of Water Resources and Environmental Engineering Curriculum Planning Chart for 112 academic year (2023-2024) incoming freshmen

科目名稱 /subjects		第1學年 lst academic it year		第2學年 2nd academic year		第3學年 3rd academic year		第4學年 4th academic year		備註 Remarks
										上 1st
		semester	semester	semester	semester	semester	semester	semester	semester	
		大氣化學與物理 ATMOSPHERIC CHEMISTRY AND PHYSICS	2							2
環境儀器分析 ENVIRONMENTAL INSTRUMENTAL ANALYSIS	3							3		
污水工程設計 WASTEWATER ENGINEERING DESIGN	2							2		
企業環境管理 CORPORATE ENVIRONMENT MANAGEMENT	2								2	
環境工程單元操作及實驗 UNIT OPERATION AND LABORATORY FOR ENVIRONMENTAL ENGINEERING	3								3	實驗課程 Laboratory course
環境影響評估 ENVIRONMENTAL IMPACT ASSESSMENT									2	
環工專業實務設計 PRACTICAL DESIGN IN ENVIRONMENTAL ENGINEERING FIELD									2	

(1)必修科目總學分數:98學分(含通識教育課程26學分)

(1)Total Credits for Required Courses: 98 credits (including 26 credits in General Education courses)

(2)最低應修本系選修科目總學分數:10學分 (2)Minimum Credits Required for Departmental Elective Courses: 10 credits

(3)其他選修總學分數:20學分 (3)Minimum Number of Credits Required for Other Elective Courses: 20credits

畢業總學分數:128學分 Total Number of Credits Required for Graduation: 128 credits