

# 114 學年度系所課程地圖 Department Curriculum Map for Academic Year(s) 114

系所概要 Department	
系所名稱 Department Name	土木工程學系 Department of Civil Engineering
班別 Program	碩專班 Master's Degree Program

教育目標 Education Goals	
編號 Number	項目內容 Content
A	培育兼顧理論與實務能力之土木工程及科技人才。 To train students to have theoretical and practical capabilities in civil engineering and technology
B	培養學生具備團隊合作、國際視野與工程倫理之認知與能力。 To cultivate students with team-work competence, global vision and engineering ethics
C	強化防災與永續工程教育。 To enhance education in hazard mitigation and sustainable engineering

學生核心能力 Student Core Competencies		
編號 Number	項目內容 Content	對應教育目標編號 Corresponding Education Goal Number
A	土木工程計算、分析與設計能力。 Capability in computation and analysis for civil engineering theory	A
B	土木工程實務之分析、評估、設計、執行能力。 Capability in analysis, evaluation, design, and implementation for civil engineering practices	A、C
C	計畫管理、溝通、團隊合作、問題處理能力。 Capability in project management, communication, team work, and problem-solving	B
D	認識時事議題、瞭解土木工程人員之社會責任、重視工程與資訊倫理及培養持續學習之精神。 Acknowledgements in contemporary issues, societal responsibilities, engineering and information ethics, and continuing learning as civil engineers	B、C
E	結構工程、水利工程、大地工程、測量資訊、營建管理、土木防災、永續工程之專業知識 Professional knowledge in structural engineering, hydraulic engineering, geotechnical engineering, geomatics, construction management, hazard mitigation, and sustainable engineering	A、B
F	策劃、執行專題研究及撰寫專業論文之能力 Capability in the initiation and fulfillment of research proposals and writing professional theses	B、C

※附註 Note:

- 各系所所屬之班別，含學士班、碩士班、博士班等，請分別填寫。1. Complete the map separately for each division, including Bachelor's, Master's, and Doctoral program.  
例如：資管學士班需填寫表二及表三；資管碩士班也須填寫表二及表三。For example, Forms 2 and 3 must be completed for Bachelor's program in Management Information Systems, and also for Master's program in for Bachelor's program in Management Information Systems.
- 教育目標及核心能力之代號皆以英文字母大寫為主。2. Codes for Education Goals and Core Competencies must be in uppercase English alphabet letters.
- 可依不同班（組）別填寫教育目標及核心能力。3. Education Goals and Core Competencies can be specific to the division in question.

承辦人簽章 Signature of Processing Clerk:

規劃單位主管簽章 Head of Planning Unit:

114 年 9 月 26 日 Date:2025/9/26

# 土木工程學系 Department of Civil Engineering ■碩專班 Master's Degree Program

## 課程規畫表 Curriculum Plan

中文課程名稱 Course Title in Chinese	英文課程名稱 Course Title in English	規劃要點 (附註) Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	建議修課年級 Recommended Year of Study	開課單位 Course Offering Unit	備註 Remarks
		1	2	3	4				
<b>院核心課程(若無免填，請加註必修、選修) College Core Courses</b> <b>(not required if none, otherwise please indicate Required Courses and Elective Courses)</b>									
<b>必修課程 Required Courses</b>									
碩士論文	Thesis	M	C	Y	6	EF		土木系 Department of Civil Engineering	
土木工程特論	Introduction to Advanced Civil Engineering	M	A	S	3	DE		土木系 Department of Civil Engineering	110 學年改必修 110 Required

※附註：規劃要點填表說明：( 1 到 4 各欄位請填正確代表字母 )

Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)

- 1 : U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
- 2 : A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究.....等。2: A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
- 3 : S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
- 4 : 科目 ( 全期或全年 ) 總學分數 ( 請填阿拉伯數字 )。4: Total course (full-semester or full-year) credits (in Arabic numerals).

承辦人簽章 Signature of Processing Clerk:

規劃單位主管簽章 Head of Planning Unit:

114 年 10 月 22 日 Date:2025/10/22

# 土木工程學系 Department of Civil Engineering ■碩專班 Master's Degree Program

## 課程規畫表 Curriculum Plan

中文課程名稱 Course Title in Chinese	英文課程名稱 Course Title in English	規劃要點 (附註) Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	建議修課年級 Recommended Year of Study	開課單位 Course Offering Unit	備註 Remarks
		1	2	3	4				
選修課程 Elective Courses									
彈性力學	Theory of Elasticity	M	A	S	3	ABDEF		土木系 Department of Civil Engineering	
地震工程分析	Earthquake Engineering Analysis	M	A	S	3	ABCDEF		土木系 Department of Civil Engineering	
結構分析理論	Computer-Assisted Structural Analysis and Modeling	M	A	S	3	ABCDEF		土木系 Department of Civil Engineering	
鋼筋輕質混凝土	Reinforced Light Weight Concrete	M	A	S	3	ABDEF		土木系 Department of Civil Engineering	
耐震設計	Earthquake Resistant Design	M	A	S	3	ABCDE		土木系 Department of Civil Engineering	
非破壞檢測與結構健康監測	Nondestructive Testing and Structural Health Monitoring	M	A	S	3	ABE		土木系 Department of Civil Engineering	原混凝土非破壞檢測 107-2 改名 Nondestructive Testing of Concrete 107-2 renamed
結構動力學	Structural Dynamics	M	A	S	3	ABEF		土木系 Department of Civil Engineering	
營建安全	Safety Implementation in Construction	M	A	S	3	ABE		土木系 Department of Civil Engineering	
水文分析與設計	Hydrological Analysis and Design	M	A	S	3	ABCDEF		土木系 Department of Civil Engineering	原水資源系統分析(一) 107-1 申請改名 Analysis of Water Resources System(I) 107-1 renamed
橋樑水力學	Bridge Hydraulics	M	A	S	3	ABCDE		土木系 Department of Civil Engineering	
生態環境施工法	Environment-friendly Engineering Methods	M	A	S	3	BCDEF		土木系 Department of Civil Engineering	
高等應用土壤力學	Advanced Applied Soil Mechanics	M	A	S	3	ABCEF		土木系 Department of Civil Engineering	
海岸環境與保護工程	Coastal Environment and Protection Engineering	M	A	S	3	ABCDEF		土木系 Department of Civil Engineering	
高等基礎工程	Advanced Foundation Engineering	M	A	S	3	ABCDEF		土木系 Department of Civil Engineering	
電子計算機在大地工程上之應用	Computer Application in Geotechnical Engineering	M	A	S	3	ABCDEF		土木系 Department of	

承辦人簽章 Signature of Processing Clerk:

規劃單位主管簽章 Head of Planning Unit:

114 年 10 月 22 日 Date:2025/10/22

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		1	2	3	4				
								Civil Engineering	
高等工程地質學	Advanced Engineering Geology	M	A	S	3	ABEF		土木系 Department of Civil Engineering	
影像處理	Image Processing	M	A	S	3	ABCEF		土木系 Department of Civil Engineering	
GPS 衛星定位測量	GPS Satellite Surveying	M	A	S	3	ABEF		土木系 Department of Civil Engineering	
高等測量平差法(一)	Advanced Data Adjustment (I)	M	A	S	3	ABEF		土木系 Department of Civil Engineering	
遙測學	Remote Sensing	M	A	S	3	ABDEF		土木系 Department of Civil Engineering	
工程專案管理與實務	Theory and Practice in Construction Project Management	M	A	S	3	BF		土木系 Department of Civil Engineering	原營建工程專案管理 106 改名 Construction Project Management 106 renamed
土木工程特論	Introduction to Advanced Civil Engineering	M	A	S	3	DE		土木系 Department of Civil Engineering	107 新增課程 110 學年改必修 107 new course & 110 required
氣候變遷與災害風險評估	Climate Change and Disaster Risk Assessment	M	A	S	3	ACDEF		土木系 Department of Civil Engineering	108-1 新增課程 108-1 new course
灌溉與排水	Irrigation and drainage	M	A	S	3	ABCE		土木系 Department of Civil Engineering	108-1 新增課程 108-1 new course
瀝青材料	Bituminous Materials	M	A	S	3	ABCD		土木系 Department of Civil Engineering	108-1 新增課程 108-1 new course
河川水力學	River Hydraulics	M	A	S	3	ABEF		土木系 Department of Civil Engineering	110-1 新增課程 110-1 new course
地理資訊系統	Geographic Information System	M	A	S	3	ABC		土木系 Department of Civil Engineering	110-2 新增課程 110-2 new course
BIM 在土木建築的應用與實作	Application and Practice of BIM in Civil Engineering and Architecture	M	A	S	3	BCDE		土木系 Department of Civil Engineering	114-1 新增課程 114-1 new course

※附註：規劃要點填表說明：( 1 到 4 各欄位請填正確代表字母 )

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