明志科技大學四技日間部115學年度入學 環境與安全衛生工程系 課程總表

Ming Chi University of Technology「2026 SchoolYear」Department of Safety, Health and Environmental Engineering Curriculum

115/07/07校課程委員會議審議通過
115/06/02院課程委員會議審議通過
115/05/28系課程委員會議審議通過
Examination at School Curriculum Committee Meeting on July 7,2026
Examination at College Curriculum Committee Meeting on June 02,2026
Examination at Department Curriculum Committee Meeting on May 28,2026

			科目名稱 Course Name	一上 學分 Credits	一上 時數 Hours	一下 學分 Credits	一下 時數 Hours	二上 學分 Credits	二上 時數 Hours	二下 學分 Credits	二下 時數 Hours	三上 學分 Credits	三上 時數 Hours	三下 學分 Credits	三下 時數 Hours	四上 學分 Credits	四上 時數 Hours	四下 學分 Credits	四下 時數 Hours	選課條件 Course Selection Conditions	每班人數 上限 Upper Limit	每班人數 下限 Lower Limit	備註 Remarks
必修 Compulsory	共同（42學分） Common Compulsory (Requires 42 Credits)	基礎課程 (22學分) Basic Course (22Credits)	文學鑑賞與情意表達(Appreciation of Literature and Emotional Expression)	2	2																		
			永續發展與社會實踐(Sustainable Development and Social Practice)	1	1																		
			生活與職場英文(English for Life and Business)	3	3	3	3																
			全民國防教育軍事訓練(All-out Defense Education Military Training)	0.5	2	0.5	2																
			體育(Physical Education)	1	2	1	2	1	2	1	2												
			藝文涵養與社會參與(Art Literacy and Social Participation)			2	2																
			歷史思維與多元文化領域(Historical Thinking and Multicultural Studies)					2	2														
			英語聽講(Aural-Oral English)					1	2	1	2												
			英文實務(一)-(二)(Practical English)													1	2	1	2		50		
			合 計 Total	7.5	10	6.5	9	4	6	2	4	0	0	0	0	1	2	1	2	22			
		核心課程 (2學分) Core Course (2 Credits)	大學之道(The Goal of University Education)	1	2																		
			設計思考(Design Thinking)			1	1																
			合 計 Total	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2			
		校共同課程 18學分) Common School Course (18 Credits)	多元學習前素養訓練模組(Reliminary Literacy Training for Multimodal Learning)									1	1										專業研究實習前素養訓練」、「海外交換學習前素養訓練」、「工讀實務實習前素養訓練」課程三擇一修課"Choose one course to take from 'Work-study Practicum (I)', 'Professional Research Practicum (I)', or 'Overseas Exchange Learning (I).'"
			多元學習模組(一)(Multimodal Learning Module I)											4	40								「工讀實務實習(一)」、「專業研究實習(一)」、「海外交換學習(一)」課程三擇一修課"Choose one course to take from 'Work-study Practicum (I)', 'Professional Research Practicum (I)', or 'Overseas Exchange Learning (I).'"
			多元學習模組(二)(Multimodal Learning Module II)											4	40								「工讀實務實習(二)」、「專業研究實習(二)」、「海外交換學習(二)」課程三擇一修課"Choose one course to take from 'Work-study Practicum (II)', 'Professional Research Practicum (II)', or 'Overseas Exchange Learning (II).'"
			多元學習模組(三)(Multimodal Learning Module III)											4	40								「工讀實務實習(三)」、「專業研究實習(三)」、「海外交換學習(三)」課程三擇一修課"Choose one course to take from 'Work-study Practicum (III)', 'Professional Research Practicum (III)', or 'Overseas Exchange Learning (III).'"
			多元學習模組(四)(Multimodal Learning Module IV)											5	40								「工讀實務實習(四)」、「專業研究實習(四)」、「海外交換學習(四)」課程三擇一修課"Choose one course to take from 'Work-study Practicum (IV)', 'Professional Research Practicum (IV)', or 'Overseas Exchange Learning (IV).'"
			合 計 Total	0	0	0	0	0	0	0	0	1	1	17	160	0	0	0	0	18			
	專業（49學分） Professional Compulsory (Requires 49 Credits)	院專業必修 (0學分) College	環資學院未開設共同必修課程 College does not offer compulsory courses																				
			合 計 Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		系專業必修 (50學分) Department Professional Compulsory (49 Credits)	普通化學(General Chemistry)	3	3																		
			工業安全(Industrial Safety)	2	2																		
			電腦在環境工程上的應用(Application of Computer on Environmental Engineering)	2	3																		
			微積分(Calculus)	3	3	3	3																
			普通化學實驗(General Chemistry Experiment)			1	2																
			有機化學(Organic Chemistry)			2	2																
			工業衛生(Industrial Hygiene)			2	2																
			質能均衡(Mass and Energy Balances)			2	2																
			工程數學(一)(Engineering Mathematics (1))					3	3														
			工程統計與程式語言(Engineering Statistics and Programming Language)					3	3														
			流體力學(Fluid Mechanics)					2	2														
			物理化學(Physical Chemistry)					2	2														
			環境科學與工程概論(Introduction to Environmental Science and Engineering)					2	2	2	2												模組A、模組B Module A, Module B
			環境微生物學(Environmental Microbiology)							3	3												
			環境化學(Environmental Chemistry)							2	2												模組B Module B
			水質分析實驗(Water Analysis Experiment)							1	2												
			實務專題研究(Special Projects Research)					1	2	1	2	1	2			1	2						
			環境微生物學實驗(Environmental Microbiology Experiment)									1	2										模組B Module B
			儀器分析及實驗(Instrumental Analysis and Laboratory Experiment)									3	3										模組B Module B
			工程倫理與實務講座(Special Topics on Engineering Ethics and Practice)													1	2						
			環境工程單元操作實驗(Experiments of Unit Operations on Environmental Engineering)															1	2				
			合 計 Total	10	11	10	11	13	14	9	11	5	7	0	0	2	4	1	2	50			
選修 Elective	共同 (至少應修畢8學分) Common Elective (Requires at least 8 Credits)	通識選修 Elective General Education courses	一、開課清冊請參考「通識課程彙總表」。 二、通識選修至少 8 學分（五類型，任選四類各 2 學分）。 1. For the course list, please refer to the "General Education Course Curriculum Table" 2. At least 8 credits from elective General Education courses (choose four categories from the given five categories; 2 credits for each category)																				
	專業（應修畢至少48學分） Professional Elective (Requires at least 49 Credits)	院專業選修 (開設5學分) College	基石專題(Cornerstone project)			1	3																
			頂石專題(Capstone project)									1	3										
			合 計 Total	0	0	1	3	0	0	0	0	1	3	0	0	0	0	0	0	2			
		系專業選修 (開設76學分) Department Professional Elective (79 Credits)	普通物理(General Physics)	3	3																		
			淨零碳排導論(Introduction to Net-Zero Carbon Emissions)	2	2																		模組A Module A
			綠色能源概論(Introduction to Green Energy)			3	3																模組A Module A
			工程圖學(Engineering Graphics)			3	3																
			施工安全(Construction Safety)					3	3														
			循環經濟導論(Introduction to Circular Economy)					2	2														模組B Module B
			工業與環境毒物學(Industrial and Environmental Toxicology)					2	2														
			溫室氣體減量與管理(Greenhouse Gas Reduction and Management)					3	3														模組A、模組B Module A, Module B
			職業安全衛生技術特論(Special topic of occupational safety and health technology)							3	3												
			職業安全衛生法規(Occupational Safety and Health Regulations)							2	2												
			噪音與振動(Noise and Vibration)							3	3												
			環安衛系海外移地教學(International field study program for the Department of Safety, Health and Environmental Engineering)									1	1										
			淨零碳規劃管理(Net-Zero Carbon Emission Planning Management)									2	2										
			作業環境監測(Workplace Monitoring)									2	2										
			廢棄物處理(Solid Waste Treatment and Disposal)									3	3										模組A、模組B Module A, Module B
			碳盤查與碳足跡管理實務(Carbon inventory and carbon footprint management practices)									3	3										模組A Module A
			工業通風(Industrial Ventilation)									2	2										
			熱處理技術(專業選修遠距教學)(Thermal Treatment Technology)											3	3								
			環境規劃管理(Environmental Planning and Management)													3	3						模組A、模組B Module A, Module B
			空氣污染防制(Fundamentals of Air Pollution)													3	3						模組A Module A
			環境保護法規(Environmental Protection Regulations)													3	3						模組A Module A
			污水工程(Wastewater Engineering)													3	3						模組A、模組B Module A, Module B
			大數據分析在環境工程上的應用(The Application of Data Mining in the Environmental Engineering)													3	3						
			廢棄物分析實驗(Waste Analysis Experiment)													1	2						模組B Module B
			廢棄物資源化工程(Waste Resourcization Engineering)															3	3				模組B Module B
			下水道工程設計(Sewer Engineering Design)															3	3				
			土壤與地下水污染整治概論(Introduction to Soil and Groundwater Pollution Remediation)															3	3				模組A Module A
			室內空氣品質(Indoor Air Quality)															3	3				
			淨零技術與能源管理(Net-Zero Carbon Emission Technologies and Energy Management)															3	3				模組A Module A
			合 計 Total	5	5	6	6	10	10	8	8	13	13	3	3	16	17	15	15	76			

備註
1 修畢第二專長學分學程者：最低畢業學分結構調整為共同必修42學分，通識選修至少8學分(五類型，任選四類各2學分)，專業必修50學分，專業選修48學分，合計148學分；已修畢之第二專長學分學程外系學分，採計為系專業選修學分。
2 修畢跨領域學分學程者；最低畢業學分結構調整為共同必修42學分，通識選修至少8學分(五類型，任選四類各2學分)，專業必修50學分，專業選修48學分，合計148學分；已修畢之跨領域學分學程外系學分，採計為系專業選修學分。
3 學生依〈學生修讀雙主修辦法〉或〈學生選讀輔修科系組辦法〉修畢雙主修或輔系者，得免修畢第二專長學分學程或跨領域學分學程
4 已申請環資能源電池科技專班者，須符合菁英班各項畢業學分要求且修畢菁英班之化工或材料或環安衛專業選修至少30學分。
5 每學期選課上限為 27 學分，一至二年級不得少於16學分，三至四年級不得少於9學分。
6 專業畢業門檻：取得本系專業能力畢業門檻及輔導要點所訂定之專業證照。
7 必修體育(三)、體育(四)，於大二至大四，採興趣選項教學。
8 淨零碳排與永續管理跨領域學分學程(模組A)、循環經濟跨領域學分學程(模組B)。跨領域模組需修滿合作科系專業課程6學分，專業核心課程14學分。

Course Catalog Remarks
1 Students who have completed a second-specialization credit program: The minimum graduation credit structure is adjusted as follows: 42 credits from common required courses, at least 8 credits from elective General Education courses (choose four categories from the given five categories; 2 credits for each category), and 50 credits from major required, 48 credits from
2 Students who have completed an interdisciplinary credit program: The minimum graduation credit structure is adjusted as follows: 42 credits from common required courses, at least 8 credits from elective General Education courses (choose four categories from the given five categories; 2 credits for each category), and 50 credits from major required, 48 credits from elective
3 Students who complete their double major or minor programs based on the "Regulations Governing the Pursuit of Double Majors for Students" or the "Regulations Governing Students' Selection of Minor Subjects and Courses" are waived from the requirement of completing a second major credit program or an interdisciplinary credit program.
4 Students who have applied forBachelor Program in Energy and Battery Technology, College of Environment and Resources, College of Environment and Resources, must complete at least 30 credits from elective courses for Materials Engineering/Chemical Engineering/Safety, Health and Environmental Engineering.
5 The upper limit of course selection per semester is 27 credits, with no less than 16 credits for the first- and second- grade students and no less than 9 credits for the third- and fourth- grade students.
6 Students are required to obtain at least one certificate as specified by the Regulations Governing Graduation Thresholds of Professional Competence of Department of Safety, Health and Environmental Engineering.
7 Students are required to take Physical Education (III) and Physical Education (IV). PE courses can be selected based on students' interest in their second to fourth years.
8 The Interdisciplinary Credit Program in Net-Zero Carbon Emissions and Sustainable Management (Module A) and the Interdisciplinary Credit Program in Circular Economy (Module B) require students to complete 6 credits of specialized courses offered by collaborating departments and 14 credits of core professional courses.