

明志科技大學113入學年化學工程系碩士班 課程表
Ming Chi University of Technology 「2024 SchoolYear」 MS Program in Chemical Engineering Curriculum

113/06/18校課程委員會會議通過
113/06/06院課程委員會會議通過
113/06/04系課程委員會會議通過

Examination at School Curriculum Committee Meeting on June 18,2024

Examination at College Curriculum Committee Meeting on June 6,2024

Examination at Department Curriculum Committee Meeting on June 4,2024

類別 category	課程名稱 Course name	上學期 Semester I		下學期 Semester II		備註		
		學分 Credit	時數 Hours	學分 Credit	時數 Hours			
必修課程 Required Courses	產業實務與書報討論(I) Industrial and Practical Discussion(1)	0	2			演講式課程 Lecture series		
	產業實務與書報討論(II) Industrial and Practical Discussion(2)			0	2	演講式課程 Lecture series		
	科技論文寫作 Technical English Writing	1	2			全英語授課 English-medium instruction		
	專題研究 (I) Special Topics(1)	1	2			全英語授課 English-medium instruction		
	專題研究 (II) Special Topics(2)			1	2	全英語授課 English-medium instruction		
	小計	2	6	1	4			
核心選修課程 Core Elective Courses	高等工程數學 Advanced Engineering Mathematics	3	3					
	高等化工熱力學 Advanced Chemical Engineering Thermodynamics	3	3					
	高等輸送現象 Advanced Transport Phenomena			3	3	全英語授課 English-medium instruction		
	高等反應工程 Advanced Reaction Kinetics			3	3	全英語授課 English-medium instruction		
	小計	6	6	6	6	1.上下學期各至少選1門核心選修課程 2.超過兩門可抵專業選修課程 1.The credits of core elective courses should exceed 6 and should be earned from semester I and II respectively. 2. Credits obtained from core elective courses exceeding the minimum requirement can be transferred to professional elective course credits.		
專業選修課程 Professional Elective Courses	陶瓷工程 Ceramic Engineering	3	3			奇數年開授 Offered in odd-numbered academic years		
	高等高分子化學 Advanced Polymer Chemistry	3	3			偶數年開授/產業學院 Offered in even-numbered academic years /Industrial college courses		
	高等儀器分析 Advanced Instrumental Analysis	3	3			偶數年開授 Offered in even-numbered academic years		
	結晶技術 Crystallization Technology	3	3			奇數年開授 Offered in odd-numbered academic years		
	光催化：基本原理與應用 Photocatalysis: Fundamentals and Applications	3	3			全英語授課 English-medium instruction		
	高等有機化學 Advanced Organic Chemistry			3	3			
	膠體與表面化學 Colloid and Surface Chemistry			3	3			
	高等高分子物理 Advanced Polymer Physics			3	3			
	塑膠產業實務 Plastic and Rubber Industrial Practice			3	3	產業學院 Industrial college courses		
	化工程序模擬 Chemical Engineering Process Simulation	3	3					
	高等聚合反應原理 Advanced Principle of Polymerization	3	3			奇數年開授 Offered in odd-numbered academic years		
	分離技術 Separation Technology	3	3					
	光電顯示與半導體製程 Photoelectric Display & Semiconductor	3	3					
	工程數值分析與應用 Engineering Numerical Analysis & Application			3	3			
	應用熱力學 Applied Thermodynamics			3	3	偶數年開授 Offered in even-numbered academic years		
	深度學習之化工應用 Deep Learning for Chemical Engineering			3	3	偶數年開授 Offered in even-numbered academic years		
	高分子加工電腦模擬 Simulation of Polymer Processing			3	3	產業學院 Industrial college courses		
	高等電化學工程 Advanced Electrochemical Engineering	3	3			全英語授課 English-medium instruction		
	穿透式電子顯微鏡實務 Transmission Electron Microscopy Practice	3	3			全英語授課 English-medium instruction		
	分子薄膜成長與探針顯微技術 Growth of Molecular Thin Films and Scanning Probe Microscopy Technique	3	3			全英語授課 English-medium instruction		
	綠色資源與技術 Green Resources and Technology	3	3					
	X光繞射原理與應用 Principle & Application of X-Ray Diffraction			3	3	全英語授課 English-medium instruction		
	觸媒原理與應用 Principle & Application of Catalytic			3	3			
	高等無機材料 Advanced Inorganic Materials			3	3	偶數年開授/全英語授課 Offered in even-numbered academic years /English-medium instruction		
	電池技術 Technology of Battery			3	3	奇數年開授/全英語授課 Offered in odd-numbered academic years /English-medium instruction		
	小計			39	39	36	36	專業選修課程至少18學分 Professional elective courses must be a minimum of 18 credits

1.畢業學分下限為27學分(不含論文6學分)·每學期修課上限為17學分·開課人數最低為5人。
The minimum graduation credits for degree are 27 (excluding 6 credits for the thesis). The maximum credits earned are 17 per semester. The minimum enrollment for a course is 5 students.

2.必修科目3學分;核心課程6學分;選修科目18學分(經指導教授簽名同意·可跨所選課·最多3門);合計27學分。
There are a total of 27 credits for graduation, including 3 credits of required courses, 6 credits of core elective courses, and 18 credits of professional elective courses. The transferable credits of 3 courses only from other institutes are earned with the agreement of the advisor.

3.奇偶數年開授課程以學年度為準。
Courses offered in alternate years are subject to the content announced for that academic year

4.外籍生之核心與專業選修課程得跨生工所核心與專業選修課程·不受跨所選課最多3門之限制·The credits of core courses and professional elective courses can be earned from Department of Biochemical Engineering for foreign students, and not limited with 3 courses only.