

Examination at School Curriculum Committee Meeting on July 22,2025

Examination at College Curriculum Committee Meeting on July 15,2025

Examination at Department Curriculum Committee Meeting on June 23,2025

類別 category		課程名稱 Course name	上學期 Semester I		下學期 Semester II		備註
			學分 Credits	時數 Hours	學分 Credits	時數 Hours	
必修課程 Required Courses		產業實務與書報討論(I) Industrial and Practical Discussion(1)	1	2			演講式課程 Lecture series
		產業實務與書報討論(II) Industrial and Practical Discussion(2)			1	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	3	6	2	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	前瞻應用化學領域 Emerging Applied Chemistry	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
		薄膜成長與高等儀器分析 Thin Film Growth and Advanced Instrumental Analysis	3	3			全英語授課 English-medium instruction
		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	
	先進化工製程領域 Advanced Chemical Engineering Processes	化工程序模擬 Chemical Engineering Process Simulation	3	3			
		分離技術 Separation Technology	3	3			
		光電顯示與半導體製程 Photoelectric Display & Semiconductor Manufacturing	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
		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 Concepts and applications of catalysis			3	3	
		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	30	30	21	21	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29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 29 (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5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29學分。  
There are a total of 29 credits for graduation, including 5 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，不受到跨所選課最多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.