

I-SHOU UNIVERSITY Department of Chemical Engineering

2-Year Curriculum for Students Admitted in Academic Year 2024

*** Credits required for graduation from the Program: 33, including:**

I. Required professional courses: 12 credits

II. Elective professional courses: 21 credits (Elective courses “Independent Study” will not be included.)

III. Dissertation: required courses 0 without credits (capstone courses)

Note: Students are required to meet the requirements set by the Program for _____ in addition to earning the required number of credits to be eligible for graduation.

博一課程表(113) First Year (2024)

類別 Category	課程代碼 Code	課程名稱 Subject	上學期 Fall	下學期 Spring	必/選修 (C/E)	備註 Remark
系必修 Department of Chemical Engineering Core	D05645	書報討論(一) Seminar (I)	2		必/C	
	D05646	書報討論(二) Seminar (II)		2	必/C	
	D05649	論文指導(一) Independent Study(I)	1		必/C	
	D05650	論文指導(二) Independent Study (II)		1	必/C	
系選修 Department of Chemical Engineering Elective	D05603	高等化工熱力學 Advanced Chemical Engineering Thermodynamics	3		選/E	
	D05606	高等輸送現象 Advanced Transport Phenomena	3		選/E	
	D05609	分子生物學 Molecular Biology	3		選/E	
	D05611	高等生物化學 Advanced Biochemistry	3		選/E	
	D05623	高等高分子化學 Advanced Polymer Chemistry	3		選/E	
	D05627	高等有機化學 Advanced Organic Chemistry	3		選/E	
	D05489	醱酵工程 Fermentation Technology	3		選/E	
	D05607	材料化學 Material Chemistry	3		選/E	
	D05621	高等化工數學 Advanced Mathematics in Chemical	3		選/E	
	D05665	統計與實驗設計 Statistics and Experimental Design	3		選/E	
	D05633	奈米技術特論 Special Topics of Nanotechnology	3		選/E	
	D05604	高等化學反應工程學 Advanced Chemical Reaction	3		選/E	
	D05608	高等生化工程 Advanced Biochemical Engineering	3		選/E	
	D05605	高等物理化學 Advanced Physical Chemistry	3		選/E	
	D05610	生物技術程序 Biotechnology Processes	3		選/E	
	D05618	相平衡 Phase Equilibrium	3		選/E	
	D05624	高等程序控制 Advanced Process Control	3		選/E	
	D05626	高等高分子物理 Advanced Polymer Physics	3		選/E	
	D05632	材料分析技術 Material Analysis	3		選/E	
	D05636	高等電化學 Advanced Electrochemistry	3		選/E	
	D05617	生物資訊學 Bioinformatics	3		選/E	
	D05613	細胞生物學 Cell Biology	3		選/E	
	D05612	基因工程 Genetic Engineering	3		選/E	
	D05639	生物無機化學 Bio-inorganic Chemistry	3		選/E	
	D05376	酵素工程 Enzyme Engineering	3		選/E	
	D05616	應用免疫學 Applied Immunology	3		選/E	
	D05635	天然物分離與應用 Separation and Application of Natural Products	3		選/E	
	D05667	科技論文寫作 Technical Thesis Writing	3		選/E	
	D05671	生物技術特論 Introduction to Biotechnology	3		選/E	
	D05470	生物科技產業產銷與管理 Marketing and management of Bio-tech industry	3		選/E	
本學年度必修學分數 Total Required credits for this year			6			

博二課程表(114) Second Year (2025)

類別 Category	課程代碼 Code	課程名稱 Subject	上學期 Fall	下學期 Spring	必/選修 (C/E)	備註 Remark
系必修 Department of Chemical Engineering Core	D05647	書報討論(三) Seminar (III)	2		必/C	Core
	D05648	書報討論(四) Seminar (IV)		2	必/C	Core
	D05651	論文指導(三) Independent Study (III)	1		必/C	
	D05652	論文指導(四) Independent Study (IV)		1	必/C	
	D05D00	博士論文 Doctoral dissertation		0	必/C	
	D05D01	學術研究倫理 Research Ethics		0	必/C	
本學年度必修學分數 Total Required credits for this year			6			

博三課程表(115) Third Year (2026)

類別 Category	課程代碼 Code	課程名稱 Subject	上學期 Fall	下學期 Spring	必/選修 (C/E)	備註 Remark
系選修 Department of Chemical Engineering Elective	D05653	論文指導(五) Independent Study (V)	1		選/E	
	D05654	論文指導(六) Independent Study Study(VI)		1	選/E	
本學年度必修學分數 Total Required credits for this year			0			

博四課程表(116) Fourth Year (2027)

類別 Category	課程代碼 Code	課程名稱 Subject	上學期 Fall	下學期 Spring	必/選修 (C/E)	備註 Remark
系選修 Department of Chemical Engineering Elective	D05657	論文指導(七) Independent Study(VII)	1		選/E	
	D05658	論文指導(八) Independent Study (VIII)		1	選/E	
本學年度必修學分數 Total Required credits for this year			0			

博五課程表(117) Fifth Year (2028)

類別 Category	課程代碼 Code	課程名稱 Subject	上學期 Fall	下學期 Spring	必/選修 (C/E)	備註 Remark
系選修 Department of Chemical Engineering Elective	D05659	論文指導(九) Independent Study(IX)	1		選/E	
	D05660	論文指導(十) Independent Study(X)		1	選/E	
本學年度必修學分數 Total Required credits for this year			0			

博六課程表(118) Sixth Year (2029)

類別 Category	課程代碼 Code	課程名稱 Subject	上學期 Fall	下學期 Spring	必/選修 (C/E)	備註 Remark
系選修 Department of Chemical Engineering Elective	D05661	論文指導(十一) Independent Study(XI)	1		選/E	
	D05662	論文指導(十二) Independent Study(XII)		1	選/E	
本學年度必修學分數 Total Required credits for this year			0			

博七課程表(119) Seventh Year (2030)

類別 Category	課程代碼 Code	課程名稱 Subject	上學期 Fall	下學期 Spring	必/選修 (C/E)	備註 Remark
系選修 Department of Chemical Engineering Elective	D05663	論文指導(十三) Independent Study(XIII)	1		選/E	
	D05664	論文指導(十四) Independent Study(XIV)		1	選/E	
本學年度必修學分數 Total Required credits for this year			0			