

臺北城市科技大學四年制日間部機械工程系課程規劃表(114學年度入學適用)

TPCU four-year Undergraduate Program Day School Department of Mechanical Engineering Curriculum Planning(applicable to 114 semester year admission)

114年03月11日-113學年度第2學期第2次系課程發展委員會修訂
114年03月11日-113學年度第2學期第1次校課程發展委員會審議
114年04月08日-113學年度第2學期校課程發展委員會審議
2025-03-11 113 academic year 2nd semester 2nd committee of department curriculum development revised
2025-03-11 113 academic year 2nd semester 1st committee of college curriculum development reviewed
2025-04-08 113 academic year 2nd semester committee of school curriculum development reviewed

類別 category	科目名稱 subject name	第一學年 1st semester year				科目名稱 subject name	第二學年 2nd semester year				科目名稱 subject name	第三學年 3rd semester year				科目名稱 subject name	第四學年 4th semester year			
		上學期 fall		下學期 spring			上學期 fall		下學期 spring			上學期 fall		下學期 spring			上學期 fall		下學期 spring	
		學分 credit	時數 hour	學分 credit	時數 hour		學分 credit	時數 hour	學分 credit	時數 hour		學分 credit	時數 hour	學分 credit	時數 hour		學分 credit	時數 hour	學分 credit	時數 hour
基礎通識 basic general education	中文閱讀與寫作 Chinese Reading and Writing	2	2			體育(三) Physical Education(III)	2	2												
	共同外語(一) Common Foreign Language (I)			2	2	共同外語(二)(三) Common Foreign Language(II)(III)	2	2	2	2										
	體育(一) Physical Education (I)	2	2																	
	體育(二)-高爾夫 Physical Education II: Golf			2	2															
	小計 subtotal	4	4	4	4	小計 subtotal	4	4	2	2	小計 subtotal	0	0	0	0	小計 subtotal	0	0	0	0
	類別學分小計 category credits subtotal	14																		
1. 共同外語課程需修滿6學分。學生於修課前即可選擇「英語」或「日語」為外語課程。 1. Common foreign language courses require 6 credits. Students can choose "English" or "Japanese" as the foreign language course before taking the course. 2. 選定語言後，不可異動。 2. Once the language is selected, it cannot be changed.																				
職用通識 career application general education	職場應用文 Workplace Applied Chinese			2	2	法律與生活 Law and Life			2	2										
	社會責任實踐(一)(二) Social Responsibility Practice (I) (II)	0	1	0	1															
	職場禮儀與口語表達 Workplace Etiquette and Oral Communication	2	2																	
	小計 subtotal	2	3	2	3	小計 subtotal	0	0	2	2	小計 subtotal	0	0	0	0	小計 subtotal	0	0	0	0
類別學分小計 category credits subtotal	6																			
多元通識 multiple general education	1. 多元通識，由通識教育中心訂定預備課程，預選後列出應選修之人文藝術領域、自然科技領域及社會科學領域三類之通識課程後，每一領域至多選修4學分，共計8學分之課程。 1. The General Education Center would offer "Multiple General Education" courses selection for students to choose from. After the advance selection, the General Education center would list courses in the following three categories (domains): Arts and Humanities, Natural Technologies and Social Science. Students are to choose at most 4 credits from each category (domain), with the total of 8 credits. 2. 通識教育中心公布各院、系、學程所提供之輔助課程，亦可承認為通識選修課程，唯學生選修所隸屬之院、系及學程提供之課程，則不予承認。 2. Supplementary courses provided by various colleges, departments, and programs announced by the General Education Center can also be recognized as general elective courses. However, students taking elective courses provided by the colleges, departments, and programs to which they are affiliated will not be recognized. 3. 「名人講座」係跨類別選修課程，可承認為「多元通識課程」中任一領域課程，以一次為限。 3. "Celebrity Lecture" is a cross-category elective course and can be recognized as a course in any field of "Multiple General Education Courses", only once.																			
	類別學分小計 category credits subtotal	8																		
院訂必修 compulsory courses required by the college	工程通識 Engineering General Education	2	2			科技應用 Application of Science and Technology			2	2	生涯講堂 Occupation Career Lecture	2	2			工程產業講座 Engineering Industry Seminar			2	2
	小計 subtotal	2	2	0	0	小計 subtotal	0	0	2	2	小計 subtotal	2	2	0	0	小計 subtotal	0	0	2	2
	類別學分小計 category credits subtotal	8																		
專業必修 required for majors	電腦軟體應用 Computer Software Applications	3	3			工程材料與應用 Engineering Materials and Applications	3	3			工程術語專讀(一) English for Engineering Terminology (I)	2	2							
	工程概論 Introduction to Engineering	3	3			基礎電學與實習 Basic Electricity and Practice	3	3			電腦輔助設計 Computer Aided Design	3	3							
	機械製圖 Mechanical Drawing	2	3			電腦輔助立體繪圖 Computer Aided 3D Model Drafting	2	3			實務專題(一) Practical Project (I)	2	3							
	電腦輔助繪圖 Computer Aided Drawing			2	3	液壓控制與實習 Fluid Pressure Control and Internships			2	3	實務專題(二) Practical Project (II)			2	3					
	應用力學 Applied Mechanics			2	2	材料力學 Mechanics of Materials	2	2			工程術語專讀(二) English for Engineering Terminology (II)			2	2					
	機械創意思考與設計 Creative Thinking and Mechanical Design			3	3	焊接實務 Welding Practice	3	3			熱流學與實驗 Thermo-Fluid Science and Experiment			2	3					
	機車動力檢修實習 Motorcycle Power Inspection and Repair			3	3	應用電子學與實習 Application of Electronics Lab.			2	3	專利申請與撰寫 Patent Application and Writing	2	3							
						機械設計 Mechanical Design			3	3	機構設計模擬 Mechanical Design Simulation			2	3					
						微電腦概論與實習 Introduction of Microcomputer and its Practices			2	3										
	小計 subtotal	8	9	10	11	小計 subtotal	13	14	9	12	小計 subtotal	9	11	9	11	小計 subtotal	0	0	0	0
類別學分小計 category credits subtotal	58																			
專業選修 professional electives	工程數學 Engineering Mathematics	2	2			熱力學 Introduction to Thermodynamics	2	2			機電科技應用 Electromechanical Technology Application	3	3			校外實習(一) Off-campus Internship (I)	9	*		
	航空基礎實習 Vehicle Engineering Actual Affairs	3	3			視窗程式設計 Windows Programming Design	3	3			飛機系統檢修實務 Aircraft System Maintenance Practice	3	3			飛機電氣系統與實習 Avionics System and Maintenance Practical	3	3		
	品質管制 quality control	3	3			循序控制與實習 Sequence Control and Practice	3	3			五軸加工機實習 Five-axis machine practice	3	3			生產自動化技術 Production Automation Technology	3	3		
	無人機概論 Introduction to Unmanned Aerial Vehicles	2	2			數控工具機 Numerical Control Machine	3	3			逆向工程與實習 Reverse Engineering and Practice	2	2			精密鑄造 Precision Casting	3	3		
	精密量測 Precision Measurement			2	2	AI影像辨識與自動導航 AI Image Recognition and Autonomous Navigation	3	3			空氣動力學 Aerodynamics	2	2			生產自動化技術 Production Automation Technology	3	3		
	工業配電 Industrial Power Distribution			3	3	無人機應用實作專題 Practical Project on UAV Applications	3	3			校外實習(暑) Off-campus Internship (Summer)			3	*	飛行安全與管理(SMS) Flight Safety and Management System(SMS)			3	3
	機構與製造 Mechanism and Manufacturing			3	3	計算機程式 Computer Programming			3	3	飛機性能分析 Aircraft Performance Analysis			2	2	飛機導航與控制 Aircraft Navigation and Control			3	3
	無人機設計與製造 Drone design and manufacturing			3	3	塑性加工 Plastic Working			2	2	航空發動機實務 Aircraft Engine Practice			3	3	機構原理 Mechanism			3	3
	機電整合與基礎程式設計 Mechatronic Engineering and Computer Programming			3	3	電腦輔助立體繪圖 Computer Aided 3D Model Drafting			3	3	燃料電池技術 Fuel Cell Technology			3	3	沖壓模具專題 Special Stamping Die			3	3
						切削原理 Fundamentals of Machining			2	2	顧客抱怨處理技巧 Dealing with a Customer Complaint			2	2	模具工程實務 Mould Engineering Practice			3	3
						飛機燃油系統 Aircraft Fuel System			3	3	微電腦控制 Microcomputer Control			3	3	校外實習(二) Off-campus Internship (II)			9	*
						進階焊接實務 Advanced Welding Practice			3	3	熱傳學 Heat Transfer			2	2	電腦整合製造 Computer Integrated Manufacturing			3	3
						進階數控工具機 Advanced CNC Machine Tools			3	3	模具機構設計 Dies Structure Design			3	3					
						飛機結構與實務 Aircraft Structures and Practice			3	3	非破壞檢測實務 Non-destructive Testing Practices			2	2					
						產學合作與業界專案 Industry-Academia Collaboration and Industrial Projects			3	3										
小計 subtotal	15	15	18	18	小計 subtotal	24	24	28	28	小計 subtotal	21	21	23	20	小計 subtotal	24	15	27	18	
類別學分小計 category credits subtotal	180																			
備註 remark	基礎通識basic general education : 14																			
	職用通識career application general education : 6																			
	多元通識multiple general education : 8																			
	院訂必修compulsory courses required by the college : 8																			
	專業必修required for majors : 63																			
	專業選修Professional electives : 29																			
畢業最低學分數minimum credits for graduation : 128																				