

**National Chin-Yi University of Technology**  
**Curriculum Planning for 2024 Four-Year Bachelor Industry-Academia Collaboration Program for International Students: Department of Mechanical Engineering**

科目	Courses	上學期 First Semester			下學期 Second Semester		
		學分 Credits	正課 Lecture	實習 Practice	學分 Credits	正課 Lecture	實習 Practice
共同必修科目(32 學分) General Required Courses (32credits )							
第一學年First Year							
英文聽與說(一)	English Listening and Speaking (I)	3	3	0			
華語聽說(一)	Chinese Listening and speaking (I)	3	5	0			
華語讀寫(一)	Chinese Reading and writing (I)	3	5	0			
華語輔導課程	Extracurricular Chinese Class	0	5	0			
體育(一)	Physical Education (I)	0	2	0			
華人文化與生活	Chinese Culture and Life	2	2	0			
音樂鑑賞	Music Appreciation	1	1	0			
藝術鑑賞	Art Appreciation	1	1	0			
華語聽說(二)	Chinese Listening and speaking (II)				3	5	0
華語讀寫(二)	Chinese Reading and writing (II)				3	5	0
英文聽與說(二)	English Listening and Speaking (II)				3	3	0
體育(二)	Physical Education (II)				0	2	0
微積分	Calculus				3	3	0
第二學年Second Year							
人權與法治	Human Rights and Rule of Law	2	2	0			
華語聽說(三)	Chinese Listening and speaking (III)	3	3	0			
職場倫理與生涯規劃	Work Place Ethics and Career Plan	2	2	0			
專業必修科目(69 學分) Department Required Courses (69credits )							
第一學年First Year							
電腦輔助機械製圖	Computer Aided Mechanical Drawin				3	1	2
靜力學	Statics				3	3	0
產業發展概論	Introduction to Industrial Development				3	3	0
第二學年Second Year							
製造學	Manufacturing Processes	3	3	0			
材料力學	Mechanics of Materials	3	3	0			
數控工具機	CNC Machine Tool	3	1	2			
程式語言	Programming Language	3	1	2			
半導體製程概論	Introduction to Semiconductor Manufacturing Processes	3	3	0			
電機學與實習	Electrical Machinery and Practice	3	1	2			
機構學	Mechanism				3	3	0
半導體設備概論	Introduction to Semiconductor Equipment				3	3	0
工程材料與實習	Engineering Material and Practice				3	1	2
產業實務實習(一)	Industry Internship (I)				9	0	9
第三學年Third Year							
產業實務實習(二)	Industry Internship (II)	9	0	9			
應用熱傳學	Applied Heat Transfer	3	3	0			
電腦輔助設計	Computer Aided Design	3	1	2			
精密量具檢驗	Precision Measuring Test	3	1	2			
電腦輔助製造	Computer Aided Manufacturing				3	1	2
第四學年 Fourth Year							
機電整合與實習	Mechatronics Theory and Practice	3	1	2			

科目	Courses	上學期 First Semester			下學期 Second Semester		
		學分 Credits	正課 Lecture	實習 Practice	學分 Credits	正課 Lecture	實習 Practice
專業選修科目 Professional Electives Courses							
第一學年 First Year (無排定專業選修課程 No Professional Electives Courses)							

第二學年Second Year (無排定專業選修課程 No Professional Electives Courses)							
第三學年 Third Year							
校外實習(一)	Extracurricular Internship (I)				6	0	6
自動化機構設計	Automatic Machine System Design				3	3	0
沖壓模設計	Stamping Die Design				3	3	0
逆向工程與快速原型技術	Reverse Engineering and Rapid Prototyping				3	3	0
塑膠模具設計	Plastics Mold Design				3	3	0
半導體材料與檢測分析	Semiconductor Materials and Detection Analysis				3	3	0
第四學年Fourth Year							
自動化量測	Automated Measurement	3	3	0			
綜合加工機技術概論	Introduction to Comprehensive Processing Machine Technology	3	3	0			
人因工程	Human Factor Engineering	3	3	0			
電腦繪圖證照班	Computer Aided Graphics Certification Class	3	3	0			
工業設計	Design of Industrial	3	3	0			
校外實習(二)	Extracurricular Internship (II)	6	0	6			
半導體物理導論	Introduction to Semiconductor Physics	3	3	0			
半導體薄膜與製程	Semiconductor Thin Films and Processes	3	3	0			
非傳統加工	Non-Traditional Machining Processes				3	3	0
製程規劃	Manufacturing Process Planning				3	3	0
精密加工技術	Precision Machining				3	3	0
可程式控制器	Programmable Logic Controller Principles and Applications				3	1	2
創新產品開發設計	Innovative Product Development and Design				3	3	0
校外實習(三)	Extracurricular Internship (III)				6	0	6
半導體元件導論	Introduction to Semiconductor Components				3	3	0
半導體封裝導論	Introduction to Semiconductor Packaging				3	3	0

學分學時總數計算表															
第一學年				第二學年				第三學年				第四學年			
	上學期		學分	下學期		學分		上學期		學分		上學期		學分	
	學分	學時		學分	學時			學分	學時			學分	學時		
必修科目學分/時數	13	24	21	27		必修科目學分/時數	25	25	18	18		必修科目學分/時數	3	3	0
最低選修科目學分/時數	0	0	0	0		最低選修科目學分/時數	0	0	0	0		最低選修科目學分/時數	9	9	12
總學分數及時數累計	13	24	21	27		總學分數及時數累計	25	25	18	18		總學分數及時數累計	12	12	12

備註 Note:

一、畢業至少應修滿 131 學分【必修 101 學分，專業選修 30 學分】。

Students should complete at least 128 credits before graduation, includes 101 required credits, 27 professional elective credits.

二、學生須於一年級第二學期結束前通過華語文能力測驗(TOCFL)A2(含)級以上測驗。如未能通過華語文能力 A2(含)級以上測驗者，則准予退學。

Students must pass the Chinese Language Proficiency Test of A2 (inclusive) or above before the end of the second semester of the first grade. Those who fail to pass the Chinese language proficiency test of A2 (included) or above will be expelled from the school.

三、校外實習課程為本系專業課程，說明如下：

The off-campus internship course is a professional course of this department, explained as follows:

(1). 產業實務實習(一)、(二)為必修課程，因故無法參與校外實習者，須由「實習替代課程選修課程表」中選擇三門課程修讀。

Industry Internship (I) and (II) are compulsory courses. Students who are unable to participate in off-campus internships for any reason must select and complete three courses from the " Internship Substitution Course List."

(2). 校外實習(一)、(二)、(三)為選修課程，當學期未選修者，須由「實習替代課程選修課程表」中選擇兩門課程修讀。 Extracurricular Internship (I), (II), and (III) are elective courses. Students who do not enroll in these courses during the semester must select and complete two courses from the " Internship Substitution Course List."

實習替代課程選修課程表 Internship Substitution Course List		
課程名稱	學分	學時
電腦輔助繪圖設計與實習 Computer Aided Drafting and Practice	3	3
非傳統加工實習 Non-Traditional Machining Processes and Practice	3	3
MATLAB 程式設計與實習 MATLAB Programming and Practice	3	3
機器人控制實務 Robot Control Practice	3	3
精密量測原理與實習 Precision Measurement and Practice	3	3

實習替代課程選修課程表 Internship Substitution Course List		
課程名稱	學分	學時
感測器原理應用與實習 Sensor Principle and Application and Practice	3	3
物聯網應用與實習 IoT Application and Practice	3	3
控制系統設計及實習 Control System Design and Practice	3	3
機電整合應用實習 Mechatronics Application and Practice	3	3
Python 程式設計與實習 Python Programming and Practice	3	3

可程式控制與實習 Programmable Logic Controller Principles and Applications and Practice	3	3
自動控制與實習 Automatic Control and Practice	3	3
電腦輔助產品設計與實習 Computer Aided Product Design and Practice	3	3
微控制器應用及實習 Microcontroller Application and Practice	3	3
氣液壓學與實習 Pneumatic Hydraulic and Practice	3	3

電路設計模擬及實習 Circuit Design Simulation and Practice	3	3
網路語言 I/O 應用及實習 Network Language I/O Application and Practice	3	3
專業軟體應用及實習 Professional Software Application and Practice	3	3
科技英文實務 (一) English for Science and Technology I	3	3
科技英文實務 (二) English for Science and Technology II	3	3