

國立勤益科技大學 113 學年度日間部四年制電
機工程系資電國際學生產學合作專班學分計畫表

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

113 學年度入學適用
113.03.28 系課程會議及 113.04.24.系務會議審議通過
113.04.30 院課程會議審議修正通過
113.5.21.校課程委員會及 113.6.6.臨時教務會議審議修正通過
114.04.21.系課程會議及 114.04.23.系務會議修正通過
114.05.07 院課程會議審議修正通過
114.5.20.校課程委員會及 114.6.5.臨時教務會議審議修正通過

科目	Courses	上學期 Fall Semester			下學期 Spring Semester		
		學分 Credit	正課 Lecture	實習 Internship	學分 Credit	正課 Lecture	實習 Internship
共同必修科目(25 學分) General Required Courses (25 credits hours)							
第一學年First Year							
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			
華人文化與生活	Chinese Culture and Life	2	2	0			
體育(一)	Physical Education (I)	0	2	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
人權與法治	Human Rights and Rule of Law				2	2	0
英文聽與說(一)	English Listening and Speaking (I)				3	3	0
體育(二)	Physical Education (II)				0	2	0
第二學年Second Year							
華語聽說(三)	Chinese Listening and Speaking (III)	3	3	0			
英文聽與說(二)	English Listening and Speaking (II)	3	3	0			
科目	Courses	上學期 Fall Semester			下學期 Spring Semester		
		學分 Credit	正課 Lecture	實習 Internship	學分 Credit	正課 Lecture	實習 Internship
專業必修科目(63 學分) Department Required Courses (63credits)							
第一學年First Year							
微積分	Calculus				3	3	0
邏輯設計	Logic Design				3	3	0
電路學(一)	Electric Circuit Analysis (I)				3	3	0
第二學年 Second Year							
工程數學	Engineering Mathematics	3	3	0			
電路學(二)	Electric Circuit Analysis (II)	3	3	0			
計算機程式及實習(一)	Computer Programming and Practice (I)	3	1	2			
電子電路及實習(一)	Electronics Circuit and Practice (I)	3	1	2			
計算機程式及實習(二)	Computer Programming and Practice (II)				3	1	2
電子電路及實習(二)	Electronics Circuit and Practice (II)				3	1	2
工業配電設計及實習(一)	Industrial Power Distribution Design and Practice(I)				3	1	2
第三學年 Third Year							
工業配電設計及實習(二)	Industrial Power Distribution Design and Practice(II)	3	1	2			
機電整合及實習	Mechatronics and Practice				3	1	2
電機機械及實習	Electric Machinery and Practice				3	1	2
產業實務實習(一)	Industrial Practice Internship (I)	9	0	9			

產業實務實習(二)	Industrial Practice Internship (II)				9	0	9
第四學年 Fourth Year							
電力電子學及實習	Power Electronics and Practice	3	1	2			
電機控制及實習	Electric Drive Control and Practice				3	1	2

科目	Courses	上學期 Fall Semester			下學期 Spring Semester		
		學分 Credits	正課 Lecture	實習 Internship	學分 Credits	正課 Lecture	實習 Internship
選修科目 Elective Courses							
第一學年 First Year							
基礎華語	Basic Mandarin	2	2	0			
計算機概論	Introduction to Computer				3	3	0
第二學年 Second Year							
PLC 應用及實習	PLC Application and Practice	3	1	2			
校外實習(一)	Internship (I)				6	0	6
第三學年 Third Year							
工業電子學及實習	Industrial Electronics and Practice	3	1	2			
信號與系統	Signals and Systems	3	3	0			
感測原理	Principle of Sensors	3	3	0			
自動控制	Automatic Control				3	3	0
微處理應用及實習	Microprocessor Application and Practice				3	1	2
圖控程式設計及實習	Graphical Programming and Practice				3	1	2
第四學年 Fourth Year							
模糊控制	Fuzzy Control	3	3	0			
數位影像處理及實習	Digital Image Processing and Practice	3	1	2			
嵌入式系統設計及實習	Embedded System Design Practice	3	1	2			
物聯網應用及實習	IoT Sensing System Applications and Practice	3	1	2			
智慧型機器人概論	Introduction to Intelligent Robotics				3	3	0
智慧型系統設計概論	Introduction to Smart-Living System Design				3	3	0
校外實習(二)	Internship (II)	6	0	6			
校外實習(三)	Internship (III)				6	0	6

備註 Note:

- 畢業至少應修滿 128 學分【必修 88 學分(包含共同科目 25 學分、專業科目 63 學分)，選修至少 40 學分】
Graduation should be at least 128 credits【Required courses 88 credits (Include Common subjects 25 credits、Department Required Courses 63 credits)、Elective Courses at least 40 credits】
- 以高中同等學歷入學者，畢業至少應修滿 146 學分【必修 88 學分(包含共同科目 25 學分、基礎科目 63 學分)，選修至少 58 學分】。
Through in equivalent qualifications for university entrance examination, graduation should be at least 146 credits【Required courses 88 credits (Include Common subjects 25 credits、Basic subjects 63 credits)、Elective Courses at least 58 credits】.
- 依據印尼政府規定，印尼籍學生畢業應修得 144 學分，回國後方得予承認其學歷。
According to the Indonesian government regulations, in order for the oversea bachelor's degree to be recognized, students must earn at least 144 credits.
- 修習【校外實習專業課程】課程及格者，相關抵免作業依照國立勤益科技大學學生校外實習課程開設要點與國立勤益科技大學學生校外實習要點辦理。
For pass the course of Internship, according to the【Special Points for Students' Outside Practice Course】and【Students outside the school practice points】.
- 依臺教技(四)字第 1070108718 號函，排課時段為週一至週五日間時段，得於暑假期間排課。
Based on Taiwan Education Technology (Fourth) Letter No. 1070108718, the courses should be scheduled daily from Monday to Friday and may be scheduled during summer vacations.
- 專業必修科目：產業實務實習(一)~(二)、專業選修科目：校外實習(一)~(三)為職場校外實習課程，每週實際實習時數為 24 小時。
Department Required Courses: Industry Practice Internship (I) – (II), Department Elective

Courses: Off-Campus Internship (I) – (III) are workplace off-campus internship courses with an actual weekly internship duration of 24 hours.

- 七、學生須於一年級第二學期結束前通過華語文能力 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，則逕予退學。

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.

- 八、為因應法規變更、評鑑建議或政府計畫規定等外在因素，本系保有調整學分計畫之權利。若有修訂，將於學期開始前公告，並明確說明修訂內容、影響範圍及相關配套措施，以保障學生權益。

The department reserves the right to adjust the curriculum in response to external factors such as changes in regulations, suggestions of evaluation and accreditation, or government program regulations. If there are any revisions, will be announced before the start of the semester, and the revised content, scope of impact, and related supporting measures will be clearly stated to protect the rights and interests of students.

- 九、校外實習課程為本系專業課程，說明如下：

- (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「預備選修與實習替代課程選修科目表」中選擇三門課程修讀。
(2)校外實習(一)、(二)、(三)為選修課程，當學期末選修者，須由「預備選修與實習替代課程選修科目表」中選擇兩門課程修讀。

預備選修與實習替代課程選修科目表 Alternative Practical courses for off- campus internships											
課程名稱 Course Name	學分 Credits	時數 Hours	課程名稱 Course Name	學分 Credits	時數 Hours	課程名稱 Course Name	學分 Credits	時數 Hours	課程名稱 Course Name	學分 Credits	時數 Hours
電腦輔助繪圖設計與實習 Computer Aided Drafting and Practice	3	3	可程式控制與實習 Programmable Logic Controller Principles and Applications and Practice	3	3	感測器原理應用與實習 Sensor Principle and Application and Practice	3	3	電路設計模擬及實習 Circuit Design Simulation and Practice	3	3
非傳統加工實習 Non-Traditional Machining Processes and Practice	3	3	自動控制與實習 Automatic Control and Practice	3	3	物聯網應用與實習 IoT Application and Practice	3	3	網路語言 I/O 應用及實習 Network Language I/O Application and Practice	3	3
MATLAB程式設計與實習 MATLAB Programming and Practice	3	3	電腦輔助產品設計與實習 Computer Aided Product Design and Practice	3	3	控制系統設計及實習 Control System Design and Practice	3	3	專業軟體應用及實習 Professional Software Application and Practice	3	3
機器人控制實務 Robot Control Practice	3	3	微控制器應用及實習 Microcontroller Application and Practice	3	3	機電整合應用實習 Mechatronics Application and Practice	3	3	科技英文實務 (一) English for Science and Technology I	3	3
精密量測原理與實習 Precision Measurement and Practice	3	3	氣液壓學與實習 Pneumatic Hydraulic and Practice	3	3	Python程式設計與實習 Python Programming and Practice	3	3	科技英文實務 (二) English for Science and Technology II	3	3