國立勤益科技大學日間部四年制115學年度人工智慧應用工程系
產學合作海外青年半導體製造實務技術專班學分計畫表
National Chin-Yi University of Technology Curriculum for 2026 Four-Year Bachelor Program of Department of Artificial Intelligence and Computer Engineering

114.09.16 系課程委員會審議通過
114.11.13 院課程會議審議通過
114.12.4 校課程委員會議及 114.12.23 臨時教務會議審議通過

科目	Courses	上學期 First Semester			下學期 Second Semester		
		學分 Credits	正課 Lecture	實習 Internship	學分 Credits	正課 Lecture	實習 Internship
共同必修科目(24學分) General Required Courses (24 credits)							
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	Chinese Tutoring Courses	0	5	0			
體育(一)	Physical Education (I)	0	2	0			
英文聽與說(一)	English Listening and Speaking(I)	3	3	0			
英文聽與說(二)	English Listening and Speaking(II)				3	3	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
體育(二)	Physical Education (II)				0	2	0
微積分	Calculus				3	3	0
第二學年 Second Year							
華語聽說(三)	Chinese Listening and Speaking (III)	3	3	0			
第三學年 Third Year(無必修課程 No General Required Courses)							
第四學年 Fourth Year (無必修課程 No General Required Courses)							
專業必修科目 (74學分) Department Required Courses (74 credits)							
第一學年 First Year							
專業外語(一)	Professional Foreign Language (I)	3	3	0			
人際溝通	Interpersonal communication	3	3	0			
工程實務訓練(一)	Engineering Practical Training (I)	1	1	0			
專業外語(二)	Professional Foreign Language (I)				3	3	0
勞動法規	Labor Regulations				3	3	0
工程實務訓練(二)	Engineering Practical Training (II)				1	1	0
第二學年 Second Year							
△程式設計	△Programming	3	3	0			
電腦軟體應用與設計	Computer Software Application and Design	3	2	1			
●產業製造程序實習(一)	●Industrial Manufacturing Program Internship (I)				3	0	6
●產業生產設備實習(一)	●Industrial Production Equipment Internship (I)				3	0	6
●工業4.0概論	●Introduction to Industry 4.0				3	2	1
△數位邏輯與實習	△Digital Logic and Experiment				3	2	1
基本電學	Basic Electricity				3	3	0
第三學年 Third Year							
半導體元件概論	Introduction to Semiconductor Components	3	3	0			
●計算機組織	●Computer Organization	3	2	1			
資料結構(一)	Data Structures(I)	3	2	1			
●產業製造程序實習(二)	●Industrial Manufacturing Program Internship (II)				3	0	6
●產業生產設備實習(二)	●Industrial Production Equipment Internship (II)				3	0	6
資料結構(二)	Data Structures(II)				3	2	1
AI機器學習	AIMachine Learning				3	3	0
△●資料庫管理系統實務	△●Database Management System Practice				3	2	1
第四學年 Fourth Year							
●積體電路封測實務	●Integrated Circuit Testing Practice	3	2	1			
●產業製造程序實習(三)	●Industrial Manufacturing Program Internship (III)				3	0	6
●產業生產設備實習(三)	●Industrial Production Equipment Internship (III)				3	0	6
積體電路製程實務	Integrated Circuit Processing				3	2	1
●機電整合實務	●Mechatronics Integration				3	2	1

科目	Courses	上學期 First Semester			下學期 Second Semester		
		學分 Credits	正課 Lecture	實習 Internship	學分 Credits	正課 Lecture	實習 Internship
共同選修科目 General Electives Courses							
第一學年 First Year							
全民國防教育軍事訓練(一)	All-Out Defense Education Military Training (I)	1	2	0			
全民國防教育軍事訓練(二)	All-Out Defense Education Military Training (II)				1	2	0

第二學年 Second Year							
全民國防教育軍事訓練(三)	All-Out Defense Education Military Training (III)	1	2	0			
生活關懷實務	Life Care Practices	3	3	0			
全民國防教育軍事訓練(四)	All-Out Defense Education Military Training (IV)				1	2	0
第三學年 Third Year							
體育選修	Physical Elective Course	1	2	0	1	2	0
第四學年 Fourth Year							
體育選修	Physical Elective Course	1	2	0	1	2	0
專業選修科目 Department Elective Courses							
第一學年 First Year							
△C 語言程式設計	△Python Programming	3	3	0			
微處理機概論	Introduction to Microprocessors				3	2	1
AI 人工智慧概論	AI Introduction to Artificial Intelligence				3	2	1
第二學年 Second Year							
●產業產品組裝實習(一)	●Industrial Product Assembly Internship (I)	6	0	12			
AI 智慧製造實務技術	AIIntelligent Manufacturing Technology	3	2	1			
●積體電路封裝製程實務(一)	●Integrated Circuit Packaging and Testing Processes(I)	3	2	1			
●VLSI 概論	●Introduction to VLSI	3	3	0			
半導體產品概論	Introduction to Semiconductor Products	3	3	0			
●智慧機械概論	●Introduction to Intelligent Machinery	3	2	1			
科技英文	English for Science and Technology	3	3	0			
●半導體製程概論	●Introduction to Semiconductor Process				3	2	1
電子電路概論	Introduction to Electronic Circuits				3	2	1
電腦輔助繪圖	Computer Aided Drafting				3	2	1
第三學年 Third Year							
●產業產品組裝實習(二)	●Industrial Product Assembly Internship (II)	6	0	12			
AI△●實務專題(Ⅰ)	AI△● Project Study(I)	3	2	1			
●智慧機械 APP 設計實務	●Smart Machinery APP Design Practice	3	2	1			
機械與自動控制	Mechanical and automatic control	3	2	1			
●積體電路封裝製程實務(二)	●Integrated Circuit Packaging and Testing Processes(II)	3	2	1			
AI△●實務專題(Ⅱ)	AI△●Project Study(II)				3	2	1
●智慧機械 SMB 實務	●Smart Machinery SMB Practice				3	2	1
覆晶技術製程實務	Flip chip technology process practice				3	2	1
AOI 工程應用實務	AOI engineering application practice				3	2	1
凸塊技術製程實務	Bump Technology Processing Practice				3	2	1
生涯規劃	Career Planning				3	3	0
第四學年 Fourth Year							
AI●產學合作專題(一)	AI●University-Industry Collaboration (I)	3	2	1			
AI 機器人學	AI Robotics	3	2	1			
測試製程實務	Test Program Practice	3	2	1			
●封裝結構力學	●Package Structural Mechanics	3	3	0			
科技報告寫作	Technical Report Writing	3	3	0			
●產業產品組裝實習(三)	●Industrial Product Assembly Internship (III)	6	0	12			
AI●產學合作專題(二)	AI●University-Industry Collaboration (II)				3	2	1
●積體電路封裝製程實務(三)	●Integrated Circuit (IC) Packaging Process (III)				3	2	1
●工業機械手臂實務	●Industrial Robotics Practice				3	2	1
AI●AI 產業應用實務	AI●AI Industry Application Practice				3	2	1
半導體元件	Semiconductor Components				3	3	0

學分/時數統計 Credit/Hour Total	第一學年 First Year				第二學年 Second Year				第三學年 Third Year				第四學年 Fourth Year			
	上學期 First Semester		下學期 Second Semester		上學期 First Semester		下學期 Second Semester		上學期 First Semester		下學期 Second Semester		上學期 First Semester		下學期 Second Semester	
	學分 Credit	學時 Hour	學分 Credit	學時 Hour	學分 Credit	學時 Hour	學分 Credit	學時 Hour	學分 Credit	學時 Hour	學分 Credit	學時 Hour	學分 Credit	學時 Hour	學分 Credit	學時 Hour
必修科目學分/時數 Required Courses Credit/Hour	16	27	19	25	6	6	15	21	9	9	15	21	3	3	12	18
最低選修科目學分/時數 Minimum Electives Courses Credit/Hour	3	3	3	3	9	15	0	0	6	12	0	0	12	18	3	3
總學分數/時數累計 Credits/Hours Total	19	30	22	28	15	21	15	21	15	21	15	21	15	21	15	21

備註 Note:

1. 畢業至少應修滿128學分【必修98學分，選修至少30學分(其中至少需含本系專業選修科目30學分)】。
   At least 128 credits should be completed for graduation [98 credits of required courses and at least 30 credits of electives (including at least 30 credits of electives required for the major of the department)].
2. .課程名稱前有標示「●」符號者，為「職能專業課程」。
   Courses with a "●" refer to a professional competence course.
3. 課程名稱前有標示「△」符號者，為程式設計課程。
   Courses with a "△" refers to an application design course.
4. 課程名稱前有標示「AI」符號者，為「人工智慧相關課程」。
   Courses with an "AI" refer to an artificial intelligence related course.
5. 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.

6. 本專班須具**華語文能力測驗快篩測驗**(TOCFL)A2 以上標準，或華語文學習時數達 480 小時(詳僑委會採認僑生具備華語文聽講及筆記能力標準表)。如報名本專班時，尚未符合以上規定，須於錄取後至**第一學年結束前**，透過以下華語文學習管道，加強華語文能力，並達**華語文能力測驗快篩測驗 A2 以上**或**補足學習時數 480 小時**。建議同學可於第 2 學期修讀 1 門華語選修課程（2 學分，每週 2 小時)，作為提升華語能力的途徑之一。

   Students enrolled in this program must have a TOCFL score of A2 or above, or have completed 480 hours of Chinese language study (see the Overseas Chinese Affairs Commission's table of standards for overseas Chinese students' listening and note-taking abilities). If you do not meet these requirements when applying for this program, you must improve your Chinese language proficiency through the following Chinese language learning channels between admission and the end of the first academic year, achieving a TOCFL score of A2 or above, or completing 480 hours of study. Students are recommended to take a Chinese language elective course (2 credits, 2 hours per week) in the second semester as a way to improve their Chinese language proficiency.Affairs Commission. Students are recommended to take a Chinese elective course (2 credits, 2 hours per week) in the second semester as a way to improve their Chinese language proficiency.