

國立勤益科技大學114學年度進修部四年制產攜2.0－產學攜手合作計畫  
電子工程系智慧電子技術產業專班學分計畫表

National Chin-Yi University of Technology Continuing Education Office  
Curriculum for 2025 Department of Electronic Engineering Four-Year Bachelor Program of Intelligent  
Electronic Technology

114.4.1系課程委員會會議審議通過  
114.5.7 113學年度第1次院課程委員會審議通過  
114.5.20.校課程委員會及114.6.5.臨時教務會議審議修訂通過

科目	Courses	上學期First Semester			下學期Second 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(24學分)General Required Courses(24credits hours)							
第一學年First Year							
應用國文(一)	Applied Chinese (I)	3	3	0			
體育(一)	Physical Education (I)	0	2	0			
微積分	Calculus	3	3	0			
應用國文(二)	Applied Chinese (II)				3	3	0
體育(二)	Physical Education (II)				0	2	0
第二學年Second Year							
英文(一)	English (I)	3	3	0			
英文(二)	English (II)				3	3	0
第三學年Third Year							
英文聽講(一)	English Listening and Speaking (I)	2	2	0			
英文聽講(二)	English Listening and Speaking (II)				2	2	0
第四學年Fourth Year							
英文檢定	Certificate of English	3	2	1			
音樂鑑賞	Music Appreciation				2	2	0
科目	Courses	上學期First Semester			下學期Second 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(59學分)Department Required Courses(59credits hours)							
第一學年First Year							
產業實務實習(一)	Industrial Practice Internship (I)	4	0	6			
企業文化與職場倫理	Corporate Culture and Workplace Ethics	3	3	0			
計算機概論	Introduction to Computer	3	3	0			
產業實務實習(二)	Industrial Practice Internship (II)				4	0	6
電路學	Electric Circuit Analysis				3	3	0
第二學年Second Year							
產業實務實習(三)	Industrial Practice Internship (III)	4	0	6			
電子學	Electronics	3	3	0			
電子電路	Electronic Circuits				3	3	0
產業實務實習(四)	Industrial Practice Internship (IV)				4	0	6
第三學年Third Year							
產業實務實習(五)	Industrial Practice Internship (V)	4	0	6			
電子實習	Electronic Experiment	3	1	2			
印刷電路板技術	Printed Circuit Board Process Technology				3	3	0
產業實務實習(六)	Industrial Practice Internship (VI)				4	0	6
第四學年Fourth Year							
產業實務實習(七)	Industrial Practice Internship (VII)	4	0	6			
人工智慧	Artificial Intelligence	3	3	0			
電子封裝技術	Electronic Packaging Technology				3	3	0
產業實務實習(八)	Industrial Practice Internship (VIII)				4	0	6
科目	Courses	上學期First Semester			下學期Second Semester		
		學分 Credit	正課 Lecture	實習 Internship	學分 Credit	正課 Lecture	實習 Internship
專業選修科目Department Electives Courses							
第一學年First Year							
VLSI概論	Introduction to VLSI				3	3	0
邏輯設計	Digital Logic Design				3	3	0
物聯網概論	Introduction to Internet of Things				3	3	0
生產作業流程	Production Process				3	3	0
工程數學	Engineering Mathematics				3	3	0
半導體物理導論	Introduction to Semiconductor Physics				3	3	0
第二學年Second Year							
工業與環境安全	Industrial and Environmental Safety	3	3	0			
信號與系統	Signals and Systems	3	3	0			
控制系統	Control System	3	3	0			
△Python程式語言	Programming in Python	3	3	0			
數位邏輯原理	Principle of Digital Logic	3	3	0			
半導體元件	Semiconductor Devices	3	3	0			
半導體設備概論	Introduction to Semiconductor Equipment	3	3	0			

產品製程與測試	Product Manufacturing and Testing				3	3	0									
光電元件	Optoelectronic Devices				3	3	0									
半導體設備實務(一)	Semiconductor Equipment Practice (I)				3	1	2									
數位信號處理	Digital Signal Processing				3	3	0									
數位IC導論	Introduction to Digital IC				3	3	0									
光電轉換導論	Introduction to Optical-Electrical Transfer				3	3	0									
半導體製程實務(一)	Semiconductor Processes Practice (I)				3	1	2									
第三學年Third Year																
自動光學檢測	Automated Optical and Electrical Inspection	3	3	0												
機器視覺	Machine Vision	3	3	0												
工業機器人原理與應用	Principle and Application of Industrial Robots	3	3	0												
影像處理概論	Introduction to Image Processing	3	3	0												
半導體製程實務(二)	Semiconductor Processes Practice (II)	3	1	2												
自動化圖控介面	Automatic Graphical Control Interface	3	3	0												
半導體設備實務(二)	Semiconductor Equipment Practice (II)	3	1	2												
全面品質管理	Total Quality Management				3	3	0									
機器學習	Machine Learning				3	3	0									
數位影像處理實作	Practice of Digital Image Processing				3	1	2									
FPGA系統設計	FPGA System Design				3	3	0									
記憶體元件	Memory Devices				3	3	0									
深度學習應用	Applied Deep Learning				3	3	0									
全客戶IC佈局	Full Custom IC Layout				3	3	0									
第四學年Fourth Year																
機電整合實務(一)	Mechatronics Practice (I)	3	1	2												
光機電整合	Photo-Electrical and Mechanical Integrated Technology	3	3	0												
雲端科技應用	Applied Cloud Computing	3	3	0												
類比積體電路設計	Analog IC Design	3	3	0												
虛擬實境	Virtual Reality	3	3	0												
半導體量測實務	Semiconductor Measurement Practice	3	1	2												
半導體薄膜工程與元件	Semiconductor Thin Film Engineering and Components	3	3	0												
雷射原理與應用	Principle and Application of Laser	3	3	0												
機電整合實務(二)	Mechatronics Practice (II)				3	1	2									
科目	Courses	上學期First Semester			下學期Second Semester											
		學分 Credit	正課 Lecture	實習 Internship	學分 Credit	正課 Lecture	實習 Internship									
共同選修科目General Elective 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																
體育選修	Physical Education Elective	1	2	0												
體育選修	Physical Education Elective				1	2	0									
第四學年Fourth Year																
終身學習與生涯規劃	Lifelong Learning and Career Planning				2	2	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	20	10	14	10	12	10	12	9	11	9	11	10	12	9	11
最低選修科目學分/時數 Minimum Electives Courses Credit / Hour	1	2	7	8	7	8	7	8	9	9	6	6	6	6	2	2
總學分數/時數累計 Credits / Hours Total	17	22	17	22	17	20	17	20	18	20	15	17	16	18	11	13

備註Note:

- 畢業至少應修滿 128 學分【必修 83 學分，選修至少 45 學分(其中至少需含本系專業選修 30 學分)】。  
Students should complete at least 128 credits before graduation, including 83 required credits, 45 elective credits (elective credits should have at least 30 credits from department elective courses).
- 選修通識課程包含性別平等、智慧財產權、海洋教育等相關課程；選修通識課程由通識學院協助開設。  
Liberal Education Courses include gender equality courses、intellectual property courses、marine education courses, and these courses provided by College of General Education.
- 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.
- 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.
- 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.
- 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.