

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
智慧自動化工程系機電整合實務專班學分計畫表
National Chin-Yi University of Technology Continuing Education Division
Curriculum for 2025 Department of Intelligent Automation Engineering Four-Year Bachelor Program of
Intelligent Electromechanical Technology

113.10.30 系課程委員會審議通過、113.10.30 系務會議審議通過
113.11.19 113學年度第1學期第1次院課程會議審議通過
113.12.05 校課程委員會及113.12.24 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 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							
國文(一)	Chinese (I)	2	2	0			
大一英文(一)	Freshman English (I)	3	3	0			
體育(一)	Physical Education (I)	0	2	0			
國文(二)	Chinese (II)				2	2	0
大一英文(二)	Freshman English (II)				3	3	0
微積分(一)	Calculus (I)				3	3	0
體育(二)	Physical Education (II)				0	2	0
第二學年Second Year							
微積分(二)	Calculus (II)	3	3	0			
第三學年Third Year							
音樂鑑賞	Music Appreciation	2	2	0			
第四學年Fourth Year							
人際關係與溝通協調	Interpersonal Communication and Coordination	2	2	0			
職場倫理與生涯規劃	Work Place Ethics and Career Plan				2	2	0
藝術鑑賞	Art 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(81學分)Department Required Courses(81credits hours)							
第一學年First Year							
應用數學	Applied Mathematics	3	3	0			
電腦輔助機械製圖	Computer Aided Mechanical Drawing	3	0	3			
靜力學	Statics	3	3	0			
產業製造程序實習(一)	Practical Training (I)	3	0	3			
產業製造程序實習(二)	Practical Training (II)				3	0	3
程式語言	Computer Programming				3	3	0
智慧自動化工程概論	Introduction to Intelligent Automation Engineering				3	3	0
第二學年Second Year							
產業生產設備實習(一)	Industrial Production Equipment Internship (I)	3	0	3			
精密量測原理與實習	Precision Measurement and Practice	3	3	0			
動力學	Dynamics	3	3	0			
工業4.0概論	Introduction to Industry 4.0	3	3	0			
產業生產設備實習(二)	Industrial Production Equipment Internship (II)				3	0	3
順序控制與實習	Sequence Control and Practice				3	0	3
工業電子學與實習	Industrial Electronics and Practice				3	0	3
智慧製造實務技術	Intelligent Manufacturing Technology Practice				3	3	0
第三學年Third Year							
產業自動化實習(一)	Industrial Internship in Automation (I)	3	0	3			
感測器原理應用與實習	Practice and Applications of Sensors	3	1	2			
自動控制與實習	Automatic Control and Practices	3	0	3			
產業自動化實習(二)	Industrial Internship in Automation (II)				3	0	3
機光電整合系統設計與實習	Mechatronics System Design and Practice				3	0	3
物聯網應用與實習	Internet of Things and Practice				3	0	3
第四學年Fourth Year							
產業智能實務實習(一)	Industrial Internship in Intelligent Applications (I)	3	0	3			
電腦輔助工程分析	Computer Aided Engineering Analysis	3	1	2			
智慧機械聯網整合技術	Networking Technology of Intelligent Mechanical	3	0	3			
產業智能實務實習(二)	Industrial Internship in Intelligent Applications (II)				3	0	3
工具機控制器實務	Practice of Controllers for Machine Tools				3	1	2
智能設備開發應用實務	Equipment Development and Application Practice				3	0	3
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							
第二學年Second Year							
半導體材料及先進材料概論	Introduction of Semiconductor Materials and Advanced Materials	3	3	0			
影像處理與應用實務	Digital Image Processing and Practical Applications	3	3	0			

動態系統概論與實務	Introduction to Dynamic Systems and Practice	3	1	2													
半導體設備設計應用概論	Introduction to Semiconductor Equipment Design and Application					3	3	0									
電腦輔助設計與實習	Computer Aided Design and Practice					3	1	2									
工業安全與衛生	Industrial Safety and Health					3	3	0									
第三學年Third Year																	
精密模具設計與加工	Precision Mold Design and Manufacturing	3	3	0													
自動化機構設計	Automatic Machine System Design	3	3	0													
科技英文(一)	English for Science and Technology(I)	3	3	0													
多軸精密加工實務技術	Practical Technology of Multi-axis Precision Machining	3	3	0													
創新產品開發設計	Innovative Product Development and Design					3	3	0									
工廠管理	Factory Management					3	3	0									
工具機系統設計實務	Practice and Design of Machine Tool System					3	0	3									
第四學年Fourth Year																	
工業用機器人	Industrial Robot	3	2	1													
大數據於智慧製造應用	Big Data in Smart Manufacturing Application	3	3	0													
智能工廠實務	Smart Factory Practice	3	0	3													
自動化量測實務	Automated Measurement Practice					3	0	3									
非傳統加工	Non-Traditional Machining Processes					3	3	0									
機械系統故障診斷與預測實務	Fault Diagnosis and Prediction of Mechanical System					3	0	3									
科目	Courses	上學期First Semester						下學期Second Semester									
		學分		正課		實習		學分		正課		實習					
		Credit	Lecture	Internship	Credit	Lecture	Internship	Credit	Lecture	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													
全民國防教育軍事訓練(三)	All-Out Defense Education Military Training (III)	1	2	0													
體育選修	Physical Education Elective					1	2	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 Education Elective	1	2	0													
全民國防教育軍事訓練(五)	All-Out Defense Education Military Training (V)	1	2	0													
體育選修	Physical Education Elective					1	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	17	19	17	19	15	15	12	12	11	11	9	9	11	11	13	13	
最低選修科目學分/時數 Minimum Electives Courses Credit / Hour	0	0	0	0	3	3	4	5	7	8	6	6	3	3	0	0	
總學分數/時數累計 Credits / Hours Total	17	19	17	19	18	18	16	17	18	19	15	15	14	14	13	13	

備註Note:

- 畢業至少應修滿 128 學分【必修 105 學分，選修至少 23 學分(其中至少需含本系專業選修 21 學分)】。
Students should complete at least 128 credits before graduation, including 105 required credits, 23 elective credits (elective credits should have at least 21 credits from department elective courses).
- 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.