

國立勤益科技大學 111 學年度日間部四年制智慧自動化工程系學分計畫表
National Chin-Yi University of Technology
Curriculum for 2022 Four-Year Bachelor Program of Department of Intelligent Automation Engineering

110.11.17 籌備系務會議審議通過
 110.11.23 院課程會議審議通過
 110.12.9 校課程委員會議及 110.12.16 教務會議審議通過
 111.06.02 校課程委員會議及 111.06.16 臨時教務會議審議修正通過

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(28 學分) General Required Courses (28credits)							
第一學年First Year(16)							
國文(一)	Chinese (I)	2	2	0			
大一英文(一)	Freshman English (I)	2	2	0			
英文聽講(一)	Listening and Speaking (I)	1	1	0			
歷史與文化(一)	History and Culture (I)	2	2	0			
音樂鑑賞	Music Appreciation	1	1	0			
體育(一)	Physical Education (I)	0	2	0			
全民國防教育軍事訓練(一)	National Defense Education and Military	0	2	0			
勞作與社會服務教育(一)	Labor and Social services Education (I)	0	0	1			
國文(二)	Chinese (II)				2	2	0
大一英文(二)	Freshman English (II)				2	2	0
英文聽講(二)	Listening and Speaking (II)				1	1	0
歷史與文化(二)	History and Culture (II)				2	2	0
藝術鑑賞	Art Appreciation				1	1	0
體育(二)	Physical Education (II)				0	2	0
全民國防教育軍事訓練(二)	National Defense Education and Military				0	2	0
勞作與社會服務教育(二)	Labor and Social services Education (II)				0	0	1
第二學年Second Year(6)							
博雅通識課程	Liberal Education	2	2	0			
體育(三)	Physical Education (III)	0	2	0			
博雅通識課程	Liberal Education				2	2	0
博雅通識課程	Liberal Education				2	2	0
體育(四)	Physical Education (IV)				0	2	0
第三學年Third Year(6)							
博雅通識課程	Liberal Education	2	2	0			
博雅通識課程	Liberal Education				2	2	0
憲法與民主	Constitution and Democracy				2	2	0
第四學年Fourth Year (無必修課程No General Required Courses)							
專業必修科目(39 學分) Department Required Courses (39credits)							
第一學年First Year(17)							
微積分(一)	Calculus (I)	3	3	0			
程式語言(一)	Computer Programming (I)	3	3	0			
工廠實習	Workshop Practices	1	0	3			
電腦輔助機械製圖	Computer Aided Mechanical Drawing	1	0	3			
微積分(二)	Calculus (II)				3	3	0
程式語言(二)	Computer Programming (II)				3	3	0
智慧自動化工程概論	Intelligent Automation Engineering				3	3	0
第二學年Second Year(12)							
工程數學	Engineering Mathematics	3	3	0			
精密量測原理與實習	Precision Measurement and Practice	1	0	3			
動態系統概論與實務	Introduction and Practice of Dynamic System	2	0	2			
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
第三學年Third Year(10)							
機器學習	Machine Learning	3	3	0			
微電腦控制與實習	Microcomputer control and practice	3	0	3			
實務專題 (一)	Project study (I)	2	0	6			
實務專題 (二)	Project study (II)				2	0	6
第四學年Fourth Year (無必修課程No General Required Courses)							

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
共同選修科目 General Electives Courses							
第一學年First Year (無排定共同選修課程 None)							
第二學年Second Year							
全民國防教育軍事訓練(三)	National Defense Education and Military Training (Ⅲ)	1	2	0			

全民國防教育軍事訓練(四)	National Defense Education and Military Training (IV)				1	2	0
第三學年Third Year							
體育選修	Physical Education, Elective Course	1	2	0			
全民國防教育軍事訓練(五)	National Defense Education and Military Training (V)	1	2	0			
體育選修	Physical Education, Elective Course				1	2	0
第四學年Fourth Year (無必修課程)							
體育選修	Physical Education, Elective Course	1	2	0			
體育選修	Physical Education, Elective Course				1	2	0
專業選修科目 Professional Electives Courses							
第一學年First Year (無排定專業選修課程 None)							
選修學程 第二學年Second Year							
共同專業選修							
工業4.0 概論	Introduction of Industry 4.0	3	3	0			
半導體材料及先進材料概論	Introduction of Semiconductor Materials and Advanced Materials	3	3	0			
生產品質工程實務	Production Quality Engineering Practice	3	3	0			
機構學實務與應用	Mechanism Practice and Application				3	3	0
半導體設備設計應用概論	Introduction of Semiconductor Equipment Design and Application				3	3	0
機光電整合應用模組 選修學程 Category of Opto-Mechatronics and Application							
影像處理與應用實務	Image Processing and Application Practice				3	0	3
智慧製造應用模組 選修學程 Category of Intelligent Manufacturing and Application							
智慧製造實務技術	Intelligent Manufacturing Technology Practice				3	0	3
選修學程 第三學年Third Year							
共同專業選修							
自動控制與實習	Automatic Control Practices	3	0	3			
感測器原理應用與實習	Practice, Principles and Applications of Sensors	3	0	3			
機械設計實習	Mechanical Design Practice	3	0	3			
物聯網應用與實習	Internet of Things and Practice				3	0	3
精密模具設計與加工	Precision Mold Design and Manufacturing				3	0	3
工具機系統設計實務	Design of Machine Tool System				3	3	0
機光電整合應用模組 選修學程 Category of Opto-Mechatronics and Application							
數值分析	Numerical Analysis	3	3	0			
機光電整合系統設計與實習	Mechatronics System Design and Practice				3	0	3
智慧製造應用模組 選修學程 Category of Intelligent Manufacturing and Application							
多軸精密加工實務技術	Practical Technology of Multi-axis Precision Machining	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
第四學年Fourth Year							
共同專業選修							
工具機控制器實務	The Practice of Controllers for Machine Tools	3	3	0			
電腦輔助工程分析	Computer Aided Engineering Analysis	3	3	0			
校外實習(一)	Out-of-campus Intern Practice (I)	9	0	9			
校外實習(二)	Out-of-campus Intern Practice (II)				9	0	9
智能工廠實務	Smart Factory Practice				3	0	3
機光電整合應用模組 選修學程 Category of Opto-Mechatronics and Application							
工業用機器人	Industrial Robot	3	3	0			
自動化量測實務	Automated Measurement Practice				3	0	3
智能設備開發應用實務	Equipment Development and Application Practice				3	0	3
智慧製造應用模組 選修學程 Category of Intelligent Manufacturing and Application							
大數據於智慧製造應用	Big data in Smart Manufacturing Application	3	3	0			
智慧機械聯網整合技術	The networking technology of Intelligent mechanical				3	0	3
先進製造實務	Advanced Manufacturing Practice				3	0	3

備註 Note:

一、畢業至少應修滿 131 學分【必修 67 學分，選修至少 64 學分】

Students should complete at least 131 credits before graduation, includes 67required credits, 64 elective credits.

二、本校訂有「國立勤益科技大學學生畢業門檻辦法」，畢業門檻條件：英文能力及自主學習，請依規定辦理。

Our school has established the "National Chin-yi University of Science and Technology Student Graduation Threshold Measures", Graduation threshold: English proficiency and independent study, please follow the regulations.

三、通識教育學院所開設之「博雅通識課程」學分數(時)為 2 學分 2 學時或 3 學分 3 學時，經 101 學年度第二學期校課程委員會會議通過。

Liberal Arts General Study courses provided by College of General Education, are divided into 2 hours course with 2 credits or 3 hours course with 3 credits, ratified by the School Course Committee in 2012.

四、學生皆需修習本系開設「跨領域學分學程」所有課程，若修畢所有學程課程及格者，可取得修畢跨領域學分學程證明書，未取得本證明書者仍可畢業。

五、學生須選讀本系所訂跨領域學程課程 並有成績登錄。

Students need to register for the course of inter-disciplinary program set by this department and have a record of grades