國 立 勤 益 科 技 大 學 1 1 3 學 年 度 進 修 部 二 年 制 電 機 工 程 系 學 分 計 畫 表

National Chin-Yi University of Technology Continuing Education Division
Curriculum for 2024 Two-year Bachelor Program of Department of Electrical Engineering

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(10學分)General Required Courses(10credits hours)							
第一學年First Year							
中國文學	Chinese Literature				2	2	0
實用英文	Practical English				2	2	0
第二學年Second Year							
歷史與文化	History and Culture	2	2	0			
憲法與民主	Constitution and Democracy				2	2	0
藝術與哲學	Art and Philosophy				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
校訂必修科目(21學分)Department Required Courses(21credits hours)							
第一學年First Year							
工程數學	Engineering Mathematics	3	3	0			
△計算機程式	Computer Programming	3	3	0			
△計算機程式實習	Computer Programming Practice	1	0	2			
控制系統	Control System				3	3	0
電力系統	Power System				3	3	0
△微處理機介面控制及實習	Microprocessor Interface Control and Practice				3	1	2
第二學年Second Year							
書報討論（一）	Seminar (I)	1	2	0			
電機控制及實習	Electric Drive Control and Practice				3	1	2
書報討論（二）	Seminar (II)				1	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
專業選修科目Department Electives Courses							
第一學年First Year							
油氣壓應用	Hydraulic and Pneumatic Application	3	3	0			
△連網型系統晶片嵌入式軟體	Networked SoC Embedded Software	2	2	0			
△專業軟體應用及實習	Professional Software Application and Practice	3	1	2			
微控制器入門	Microcontrollers Primer	2	2	0			
可程式控制器原理	Principle of Programmable Logic Control	3	3	0			
△PLC應用	PLC Application	2	2	0			
數位電子學	Digital Electronics	3	3	0			
網路分析	Network Analysis	3	3	0			
△圖控軟體應用	Graphics Control Software Application	2	2	0			
發變電工程	Generation Transformation Engineering				3	3	0
電力品質	Power Quality				3	3	0
監控系統設計及實習	SCADA System Design and Practice				3	1	2
變頻器原理及應用	Principle and Application of Frequency Convertor				2	2	0
線性代數	Linear Algebra				3	3	0
電力電子學及實習	Power Electronics and Practice				3	1	2
信號與系統	Signals and Systems				3	3	0
微機電概論	Introduction to Micro Electromechanical				2	2	0
△微控制器應用及實習	Microcontroller Application and Practice				3	1	2
第二學年Second Year							
能源應用	Energy Application	3	3	0			
控制系統實務	Control System Practice	3	2	2			
△物聯網電子系統應用與設計	IoT Electronic Systems Application and Design	3	3	0			
太陽能工程及實習	Solar Energy Engineering and Practice	3	1	2			
感測轉換及實習	Sensors and Transducers Practice	3	1	2			
電機機械及實習	Electric Machinery and Practice	3	1	2			
電磁學	Basic Electromagnetics	3	3	0			
系統動態模擬	System Dynamic Simulation	3	1	2			
△圖控程式應用及實習	Graphical Programming Application and Practice	3	1	2			
工業配線及實習	Industrial Wiring Practice	3	1	2			

課程名稱	Course Name						
電腦輔助繪圖設計及實習	Computer Aided Drafting Design and Practice				3	1	2
電機設備保護實習	Electrical Equipment Protection Practice				3	1	2
機電整合	Mechatronics				3	3	0
無線感測網路	Wireless Sensor Network				3	3	0
消防工程設計	Fire Protection Engineering Design				3	3	0
類神經網路應用	Neural Network and Application				3	3	0
電腦輔助電機設計及實習	Computer Aided Design and Practice of Electrical Machinery				3	1	2
△數位信號處理及實習	Digital Signal Processing and Practice				3	1	2
超大型積體電路設計導論	Introduction to Very Large Scale Integration (VLSI) Design				3	3	0

學分/時數統計 Credit/Hour Total	第一學年First Year				第二學年Second Year			
	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
必修科目學分/時數 Required Courses Credit / Hour	7	8	13	13	3	4	9	9
最低選修科目學分/時數 Minimum Electives Courses Credit / Hour	12	12	5	5	15	15	9	9
總學分數/時數累計 Credits / Hours Total	19	20	18	18	18	19	18	18

備註Note:

一、 畢業至少應修滿 73 學分【必修 32 學分，選修至少 41 學分(其中至少需含本系專業選修 27 學分)】。
Students should complete at least 73 credits before graduation, including 32 required credits, 41 elective credits (elective credits should have at least 27 credits from department elective courses).

二、 選修41學分內，必須修習三門以上（含）具有實驗（習）課之課程。

三、 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.

四、 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.

五、 實際開課狀況需依當學期、依各科目授課進度與老師可配合授課情形安排，本系歷年開課，請至本校「校務行政網路系統-學生篇」查詢。
The actual commencement of classes will be arranged based on the current semester situation, the progress of each subject's curriculum, and the availability of teachers for instruction. Information about courses offered in previous years for this department can be found by checking the 'Student Information Management System' on our school's website.

六、 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.

七、 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.

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.