

國立勤益科技大學 113 學年度日間部二年制冷凍空調與能源系國際學生產學合作專班學分計畫表

National Chin-Yi University of Technology

Curriculum Planning of 2024 Two-Year College Industry-Academia Collaboration Program for Mechatronics, Energy and Environment Control in Department of Refrigeration, Air Conditioning and Energy Engineering

112.10.11 系課程會議審議通過
 112.10.27 系務會議審議通過
 112.11.23 院課程會議審議通過
 112.12.07 校課程委員會議及 112.12.21 臨時教務會議審議通過
 113.04.22 系課程會議審議通過
 113.05.08 系務會議審議通過
 113.5.14 院課程會議審議通過
 113.5.21 校課程委員會議及 113.6.6 臨時教務會議審議修訂通過

第一學年 First Year						第二學年 Second Year						第三學年 Third Year					
科目 Courses	上學期 First Semester			下學期 Second Semester			科目 Courses	上學期 First Semester			下學期 Second Semester			科目 Courses	上學期 First Semester		
	學分 Credits	正課 Lecture	實習 Internship	學分 Credits	正課 Lecture	實習 Internship		學分 Credits	正課 Lecture	實習 Internship	學分 Credits	正課 Lecture	實習 Internship		學分 Credits	正課 Lecture	實習 Internship
共同科目 (17 學分) General Required Courses (17 credits hours)																	
華語聽說(一) Chinese Listening and speaking	3	5	0				華語聽說(三) Chinese Listening and speaking (III)	3	3	0							
華語讀寫(一) Chinese Reading and writing	3	5	0														
體育(一) Physical Education (I)	0	2	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											
藝術與哲學 Art and philosophy				2	2	0											
體育(二) Physical Education (II)				0	2	0											
小計	6	12	0	8	14	0		3	3	0							
校訂必修科目 (29 學分) Professional Required Courses (29 credits hours)																	
工程數學(一) Engineering Mathematics (I)	3	3	0				產業實習(一) Industry internship (I)	9	0	9				實務專題 Project Study	2	0	6
熱力學 Thermodynamics	3	3	0														
冷凍空調基礎裝修實務 Basic Practices of Refrigeration and Air-Conditioning	3	2	2														
空調工程與實習 Air-Condition Engineering and Practices				3	2	2											
冷凍工程及實習 Refrigeration Engineering and Practices				3	2	2											
機電整合實務 Mechatronics integration practice				3	2	2											
小計	9	8	2	9	6	6		9	0	9	0	0	0		2	0	6
校訂選修科目 (26 學分) Professional Electives Courses (26 credits hours)																	

專

業 選 修	自動控制 Automatic Control	3	3	0			工業安全 Industry Safety	3	3	0			通風工程 Ventilation and Air Moving Engineering	3	3	0		
	燃料電池概論 Introduction to Fuel Cells	3	3	0			現代控制 Modern Control	3	3	0			綠建築與照明節能 Energy Saving of Green Building and Lighting	3	3	0		
	變頻節能控制 Variable Frequency Energy Saving Control	3	3	0			精密加工技術 Precision Machining Technique	3	3	0			無塵室技術 Cleanroom Technology	3	3	0		
	虛擬儀控軟體應用 Basic Programming and Application of Virtual Instrument Software	3	3	0			熱交換器設計 Heat Exchanger Design	3	3	0			冷凍空調系統故障分析 Refrigeration and Air-Conditioning System Problem Diagnostic and Repair Procedure	3	3	0		
	環境控制 Environmental control	3	3	0			工程力學 Engineering Mechanics	3	3	0			振動與噪音控制 Vibration and Noise Control	3	3	0		
	模糊控制概論 Fuzzy Control Theory				3	3	0	電腦輔助設計與實習 Computer Aided Design	3	1	2			特殊空調系統 Distinctive Air-Conditioning System	3	3	0	
	電腦立體製圖 Computer 3D graphics				3	3	0	產業實習(二) industry internship (II)				9	0	9	能源工程原理與實習 Energy Engineering Principle and Practices	3	2	2
	消防控制概論 Introduction to Fire Fighting Engineering				3	3	0	風力發電 Wind Power Generation				3	3	0				
	工程數學(二) Engineering Mathematics (II)				3	3	0	專案研究 Project research				3	3	0				
	電子設備冷卻技術 Cooling Technique of Electronic Equipment				3	3	0	流場分析專業軟體應用 Computational Fluid Dynamics				3	3	0				
	科技溝通 Communication of Science and Technology				3	3	0	冷凍空調工程規劃及管理 Planning and Management of Refrigeration and Air-Conditioning Engineering				3	3	0				
	冷凍空調設備與實習 Equipment and Practices of Refrigeration and Air-Conditioning				3	2	2											
	冷凍空調裝修實務 Practice of Refrigeration and Air-Conditioning Installation and Maintenance				3	2	2											

備 註	<p>一、 畢業至少應修72學分(必修46學分，本系專業選修26學分)。 Students should complete at least 72 credits before graduation, including 46 required credits, 26 elective credits.</p> <p>畢業前應通過「華語文能力測驗A2級」。 Students should pass Level A2 on the TOCFL (Test of Chinese as a Foreign Language) to meet the Chinese Proficiency requirement for graduation</p>
	<p>二、 學生應於第一學期修畢華語輔導課程(0學分5學時)。 Students should complete the Extracurricular Chinese Class in the first Semester.</p>