

Curriculum Map for
2021 2+i Industry-Academia Collaboration Program of Mechatronic Engineering
國立勤益科技大學2021年2+i冷凍空調與能源系機械工程專班 課程地圖

	First Year 一年級		Second Year 二年級		Third Year 三年級	Ability 能力	Job Occupation 就業職稱
	First semester 上學期	Second semester 下學期	First semester 上學期	Second semester 下學期	First semester 上學期		
General Required courses 通識基礎課程	Chinese Listening and speaking 華語聽說					Language 語文能力	
	Chinese Speaking and writing 華語讀寫						
	Theme-based Chinese Reading and writing 華語主題式讀寫						
	Theme-based Chinese Speaking and writing 華語主題式聽說						
	Training for Test of Chinese as a Foreign Languages 華語檢定輔導						
	Physical Education(I) 體育(一)	Physical Education(II) 體育(二)				Physical Fitness 體能	
	Art and philosophy 藝術與哲學				Art 藝術鑑賞		
	Engineering Mathematics(I) 工程數學(一)	Engineering Mathematics (II) 工程數學(二)				Methematical Logic Analysis 數理邏輯分析	
		Air- Condition Engineering and Practices 空調工程與實習				Operation & Installation 實施與安裝	
		Refrigeration Engineering and Practices 冷凍工程及實習					

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Professional Courses 專業課程		Equipment and Practices of Refrigeration and Air-Conditioning 冷凍空調設備與實習	Refrigeration and Air Conditioning System Problem Diagnostic and Repair Procedure 冷凍空調系統故障分析	Industry practice (I) 產業實習(一)	Industry practice (II) 產業實習(二)	Practice & Test 實作及測試	Electrical and Mechanical Engineer 機電工程師 Refrigeration and air conditioning engineer 冷凍空調工程師
		Practice of Refrigeration and Air-Conditioning Installation and Maintenance 冷凍空調裝修實務		Off-campus internship on summer 校外實習(暑期)			
	Variable Frequency Energy Saving Control 變頻節能控制	Fundamental Practical Application of HVAC & R 冷凍空調基礎裝修實務	Project Study(I) 實務專題(一)	Project Study(II) 實務專題(二)			
	Automatic Control 自動控制	Cooling Technique of Electronic Equipment 電子設備冷卻技術	Vibration and Noise Control 振動與噪音控制				
			Cleanroom Technology 無塵室技術	Distinctive Air-Conditioning System 特殊空調系統	Ventilation and Air Moving Engineering 通風工程	Air conditioning & Design 空調與設計	
		Introduction to Fire Fighting Engineering 消防控制概論	Industry Safety 工業安全			Health and Safety 衛生安全	
		Thermodynamics 熱力學	Environmental control 環境控制			Basic Theory 基礎概論	
	Fuzzy Control Theory 模糊控制概論	Engineering Mechanics 工程力學					
	Mechatronics integration practice 機電整合實務	Project Study(I) 實務專題(一)	Industry practice (I) 產業實習(一)	Industry practice (II) 產業實習(二)			

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Professional Courses 專業課程			Energy Engineering Principle and Practices 能源工程與實習	Off-campus internship on summer 校外實習(暑期)	Project research 專案研究	Theory & Internship 理論與實習	
			Modern Control 現代控制	Project Study(II) 實務專題(二)			
	Basic Programming and Application of Virtual Instrument Software 虛擬儀控軟體應用	Computer 3D graphics 電腦立體製圖	Heat Exchanger Design 熱交換器設計	Computational Fluid Dynamics 流場分析專業軟體應用		Software application & design 軟體應用與設計	
	Introduction to Fuel Cells 燃料電池概論			Wind Power Generation 風力發電	Energy Saving of Green Building and Lighting 綠建築與照明節能	Power application 能源應用	
				Planning and Management of Refrigeration and Air- Conditioning Engineering 冷凍空調工程規劃及管理		Planning & Management 規劃及管理	
		Communication of Science and Technology 科技溝通				Communication and Self-growth 溝通與自我成長	
General Required courses 通識必修		Professional Required Courses 專業必修		Professional Elective Courses 專業選修			