

中信科技大學 四年制 冷凍空調與能源系 日間部 課程規劃表(適用115學年度新南向專班)
 CTBC University of Technology Curriculum of Refrigeration Air Conditioning and Energy Department for Four-Year Bachelor's Degree Program-Day Division (New Southbound International Student Industry-Academia Cooperation Program (Effective from Fall 2026))

科目名稱		第一學年 1st school year				第二學年 2nd school year				第三學年 3rd school year				第四學年 4th school year			
		上學期 1st semester		下學期 2nd		上學期 1st semester		下學期 2nd		上學期 1st semester		下學期 2nd		上學期 1st semester		下學期 2nd	
		學分	時數	學分	時數	學分	時數	學分	時數	學分	時數	學分	時數	學分	時數	學分	時數
		Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours
校訂必修 課程 Stipulated Required Courses	生活華語會話 Living Mandarin Conversation	2/ 4															
	華語聽力與閱讀(1) Chinese Reading and Writing (1)	3/ 6															
	體育(1)(2) Physical Education(1)(2)	2/ 2		2/ 2													
	華語聽力與閱讀(2) Chinese Reading and Writing (2)			3/ 6													
	實用生活華語初階 Practical Chinese for Everyday Life-Beginner Level			2/ 2													
	華語文能力檢定輔導 Chinese Ability Certificate			2/ 2													
	台灣歷史與文化 Taiwan History and Culture					2/ 2											
	職場溝通華語 Chinese for Workplace Communication					2/ 2											
	實用生活華語進階 Practical Chinese for Everyday Life-Advanced Level							2/ 2									
	生活美學 Aesthetics for Better Life							2/ 2									
	小 計Subtotal	7/ 12		9/ 12		4/ 4		4/ 4		0/ 0		0/ 0		0/ 0		0/ 0	
專業必修 課程 Professional Required Courses	工業安全與衛生 Industrial Safety and Health	2/ 2															
	職場倫理 Workplace Ethics			2/ 2													
	電腦輔助繪圖 Computer Assisted Drafting			2/ 2													
	冷凍空調原理 Principles of Refrigeration and Air Conditioning					2/ 2											
	程式設計 Programming Course					4/ 4											
	流體力學 Fluid Mechanics							2/ 2									
	冷凍空調原理實驗 Experiment of Refrigeration and Air Condition Principle							2/ 2									
	冷凍空調裝修實習 Maintenance & Practice of Refrigeration and Air Conditioning							4/ 4									
	能源工程 Energy Engineering									2/ 2							
	冷凍工程與設計 Refrigeration Engineering and Design									2/ 2							
	簡報製作與表達 Presentation Production and Presentation									2/ 2							
	電工學 Electricity Engineering									2/ 2							
	空調工程與設計 Air Conditioning Engineering and											2/ 2					
	冷凍空調自動控制 Automatic Control of Refrigeration and Air Conditioning											2/ 2					

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		Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours
	校外實習(1) Off-Campus Training(1)					6/											
	校外實習(2) Off-Campus Training(2)							6/									
	校外實習(3) Off-Campus Training(3)									6/							
	小 計Subtotal	2/ 2		4/ 4		12/ 6		14/ 8		14/ 8		4/ 4		0/ 0		0/ 0	
系專業選修課程 Professional Elective Courses	數學演練習作 Math exercises	2/ 2															
	工程圖學 Engineering Drawing	2/ 2															
	生活物理 physics of life			2/ 2													
	熱力學 Thermodynamics					2/ 2											
	基礎冷凍空調裝修實習 Basic Practice of Refrigeration and Air Conditioning					4/ 4											
	半導體概論 Introduction to Semiconductors					2/ 2											
	感測與量測原理 Sensing and measurement principles							2/ 2									
	電力電子學 Power Electronics							2/ 2									
	電器修護實習 Electrical Appliances Repair Practice							4/ 4									
	電腦軟體應用 Computer Software Application									2/ 2							
	可程式控制與實習 Programmable Logic Control and									2/ 2							
	進階冷凍空調裝修實習 Maintenance & Practice of Refrigeration and Air Conditioning									4/ 4							
	電腦輔助冷凍空調繪圖 Computer Aided Refrigeration and Air Conditioning Drawing									2/ 2							
	太陽能工程 Solar Energy Engineering											2/ 2					
	風力發電 Wind Power Generation											2/ 2					
	智慧生活應用與實習 Smart Life Application and Practice											4/ 4					
	通風工程 Ventilation Engineering											2/ 2					
	熱傳學 Heat Transfer											2/ 2					
	機電與能源實習 Practice of Mechatronics and Energy											2/ 2					
	空調設計實務 Design Practice of Air Conditioning													2/ 2			
	冷凍空調節能技術 Refrigeration and Air Conditioning Energy-Saving Technology													2/ 2			
	流體機械 Fluid Machinery													2/ 2			

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	冷凍空調工程管理 Refrigeration and air conditioning engineering management													2/ 2			
	智慧能源管理技術 Smart Energy Management Technology													2/ 2			
	熱交換設計 Heat exchange design														2/ 2		
	冷凍空調系統設計 Refrigeration and air conditioning system design														2/ 2		
	電腦輔助空調系統分析 Computer Aided Air Conditioning System Analysis														4/ 4		
	物聯網應用與實習 Internet of Things Engineering and Network Analysis														2/ 2		
	企業實務實習(1) Business Practice(1)											6/					
	企業實務實習(2) Business Practice(2)												6/				
	企業實務實習(3) Business Practice(3)														6/		
	冷凍空調裝修實務訓練(1)~(6) Practices of Refrigeration and Air Conditioning(1)~(6)					3/ 3		3/ 3		3/ 3		3/ 3		3/ 3		3/ 3	
	電器修護實務訓練(1)~(6) Practices of Electrical Appliance Repair(1)~(6)					3/ 3		3/ 3		3/ 3		3/ 3		3/ 3		3/ 3	
	小 計Subtotal	4/ 4		2/ 2		14/ 14		14/ 14		16/ 16		26/ 20		22/ 16		22/ 16	
	合 計Total	13/ 18		15/ 18		30/ 24		32/ 26		30/ 24		30/ 24		22/ 16		22/ 16	

115年01月07日 校課程發展委員會會議通過Amended Date：2026-01-07

備註
Note

一、畢業總學分至少128學分：
The total number of credits completed to be eligible to graduate shall not be less than 128 credits.
1.校訂必修24學分(含華語基礎必修16學分、通識博雅必修8學分)。
The general required credits shall be 24 credits.(16credits for required basic Chinese courses, and 8credits for required liberal arts courses.)
2.專業必修50學分(系必修50學分)。
The professional required credits shall be 50 credits. (50 credits for required department courses)
3.系專業選修至少54學分。
The professional elective credits shall be not less than 54 credits.
二、畢業門檻：Graduation Threshold
學生於修業年限內，應修畢「校訂必修」、「專業必修」、「系專業選修(含一般選修)」共計128學分。
Students are required to complete a total of 128 credits of "Stipulated Compulsory Course", "Professional Compulsory Course", "Department Professional Elective Course", ("General Elective Course" included) within their academic years.
三、一年級上學期不具學分輔導課程：華語聽力閱讀輔導班(0/3)/華語文檢測輔導班(0/2)
Grade 1, First Semester Non-Credit Support Courses:Chinese Listening and Reading Support Class (0/3)/Chinese Proficiency Test Preparation Class (0/2)
四、「校外實習」、「企業實務實習」課程實習實際時數，每週實習時數為20小時，實習18週共360小時。
Internship Hours for the“ Off-campus Internship”、“Corporate Internship Practice” Course:The internship requires 20 hours per week over a period of 18 weeks, totaling 360 hours.
五、因故未實習者，以「冷凍空調裝修實務訓練(1)~(6)」、「電器修護實務訓練(1)~(6)」課程代替校外實習。實習替代課程6學分/6學時，與實習替代課程規劃相符。本系列課程為獨立單元，雖編有序號，但各單元內容不相互重疊，不限修課先後順序。
In cases where students are unable to complete the internship due to certain circumstances, they will take substitute courses titled “Practices of Refrigeration and Air Conditioning(1)~(6)” and “Practices of Electrical Appliance Repair(1)~(6)”. These courses account for 6 credits / 6 hours, aligning with the approved internship substitution curriculum plan. Each unit is a stand-alone course. Students can enroll in any order.