

國立勤益科技大學113學年度進修部碩士在職專班
冷凍空調與能源系學分計畫表

National Chin-Yi University of Technology Continuing Education Division
Curriculum for 2024 In-Service Master Program 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
113.12.05.校課程委員會議及113.12.24.臨時教務會議審議通過

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							
書報討論(一)	Seminar (I)				2	2	0
第二學年Second Year							
書報討論(二)	Seminar (II)	2	2	0			
論文或技術報告	Thesis or Technical Reports	3	3	0			
論文或技術報告	Thesis or Technical Reports				3	3	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							
高等熱力與熱傳學	Advanced Thermodynamics and Heat Transfer	3	3	0			
工程最適化方法	Engineering Optimization Methods	3	3	0			
建築物理環境控制	Control of Physical Environment of Buildings	3	3	0			
無塵無菌室設計	Cleanroom HVAC System Design	3	3	0			
食品冷凍冷藏	Refrigeration and Freezing of Foods	3	3	0			
熱交換器設計與分析	Heat Exchanger Design and Analysis	3	3	0			
空調節能技術	Energy Conservation for Air-Conditioning	3	3	0			
冷凍空調精密控制實務	Precise Control Practice of Refrigeration and Air-Condition System	3	3	0			
真空凍結乾燥	Vacuum Freeze Drying				3	3	0
特殊空調設計	Special HVAC System Design				3	3	0
能源工程實務	Energy Engineering Practices				3	3	0
恆溫恆濕系統設計	Temperature and Humidity Control Design				3	3	0
室內植栽環境節能技術	Indoor Planting and Energy Conservation Technology				3	3	0
煙控系統設計與分析	Design and Analysis of Smoke Management Systems				3	3	0
第二學年Second Year							
冷凍空調管理自動化	Automatic Management of HVAC and R	3	3	0			
冷凍空調測試標準與規範	HVAC and R Testing Standards and Guidelines	3	3	0			
綠建築評估與分析	Green Building Assessment and Analysis	3	3	0			
特殊冷凍應用技術	Special System Application on Refrigeration	3	3	0			
室內空氣品質	Indoor Air Quality				3	3	0
節能服務技術	Energy Service Technology				3	3	0
特殊通風技術	Particular Ventilation Technology				3	3	0
能源應用與原動力廠	Energy Applications and Power Plants				3	3	0

備註Note:

- 一、 畢業至少應修滿34學分【必修10學分(含論文6學分)，選修至少24學分】，系內專業選修不得低於18學分。
Students should complete at least 34 credits before graduation including 10 required credits (containing 6 credits for Thesis) and 24 elective credits (at least 18 professional elective credits).
- 二、 研究生必須通過碩士班論文口試，方准予畢業。
Graduate students are only qualified for graduation after passing the thesis oral examination of the master's program and will be awarded with the master's degree according to law by the time of graduation.
- 三、 學生應於申請學位考試前至「教育部臺灣學術倫理教育資源中心」網路平臺完成學術研究倫理教育課程，至少6小時課程。
Students need to complete the academic research ethics education course for at least 6 hours before the final defence application.
- 四、 以同等學力資格入學之學生（冷凍空調工程技師及相關技師除外）須補修本系四技日間部、進修部四技課程(課程名稱需經系主任同意)至少二門〔6學分(含)以上〕，以60分為及格，不計入畢業學分。
Students admitted with an equivalent education level (except for the refrigeration and air-conditioning engineering technicians and other related technicians) must complete all course of the 4-year College of the Day School Division where reaching 60 points will be regarded as qualification and not included into the graduation credits.
- 五、 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.
- 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.