

I. Program Introduction 專班簡介

The field of refrigeration and air conditioning and energy is an education that focuses on the combination of solid-foundational theorem and practical applications. The department of Refrigeration, Air Conditioning and Energy Engineering incorporates energy topics in response to the demands of the industries, and develops refrigeration and air Conditioning, environmental control, electromechanical integration, energy application technologies around energy saving and new energy. Graduates have integrated technique for refrigerating, air conditioning and energy applications, and can integrate into the industries with excellent and technical capabilities. In addition to teaching on-campus, the education in special program also incorporates off-campus internship at industries. It could not only cultivate students' professional abilities, but also let students realize the development trend of the industries and enhance their future employability.

冷凍空調與能源領域在工程學門上是一門著重於基礎理論與實務應用結合的教育，冷凍空調與能源系因應產業需求，發展關於冷凍空調、環境控制、機電整合、節能與新能源等能源應用技術，使畢業生具備冷凍空調與能源應用之整合性技術。專班教育除透過學校課程授與外亦結合企業實習，除培養學生專業能力並能讓學生瞭解產業發展趨勢，增進學生未來就業力。

There are three major directions in the education goals of this department:

本系在教育目標上有三大方向：

1. To make students become professionals in refrigeration, air conditioning and energy with theoretical and practical capabilities. 使學生成為具有理論與實務能力之冷凍空調與能源之專業

The department grants relevant knowledge and skills in mathematical science, refrigeration and air conditioning and energy, and electromechanical control. The training will enable students to solve basic and related engineering problems about refrigeration, air conditioning and energy. The education not only meets the demands of the industries, but also is a unique feature of the department for making graduates with the engineering ability of refrigeration, air conditioning and energy.

本系授與數理科學、冷凍空調與能源、機電控制之相關知識與技能，使學生具備解決基礎冷凍空調與能源相關工程問題，不僅可滿足業界的需求，本系畢業學生所具備的能力也是本系教育獨有的特色。

2. To train the abilities of growth and learning 培養成長與學習的能力

In addition to the training of professional abilities, the period of student learning, practices and corporate internship with the resources of the department can motivate students to have the ability and spirit of active learning, and also enable students to understand the trend of industrial development and influences around the world.

除了專業能力的培養與訓練之外，學生學習、實務實作與企業實習的期間輔以系上與學校的資源能激勵學生有主動學習的能力與精神，亦能讓學生瞭解全球產業發展的趨勢及影響。

3. To attach importance to cultivation of humanities and responsible attitude

重視人文與負責態度的培養

The department also focuses on the growth of students' attitudes towards learning and work. Therefore, we greatly pay attention to the cultivation of teamwork for students, and enhance students' learning ability through communication and teamwork.

本系亦著重於學生在學習與工作上態度的成長，因此我們相當重視學生團隊合作精神的培養，藉由溝通與團隊合作的方式來提升學生的學習能力。

Therefore, the planning of the department in terms of professionalism, growth and learning attitude is to meet the industrial characteristics and talent demand of refrigeration air conditioning and energy applications. According to the policy of the Ministry of Education, the core curriculum and three major directions, including refrigeration and air conditioning, electromechanical integration and energy application, have made. The department uses the consultation committee to discuss with relevant experts, scholars, alumnus, teachers, industry insider, etc., and carry curriculum planning and revision out. Then after discussion through the department meetings, the establishment of a two-cycle continuous improvement mechanism is to ensure that the developing direction of the department, education goals and curriculum planning are in accordance with the trend of the demands of industries. 因此，本系在專業、成長與學習態度上的規劃為配合冷凍空調與能源應用的產業特性與人才需求，並且依據教育部的政策，擬定出核心課程與冷凍空調、機電整合與能源應用等三大發展特色，並利用系所諮詢委員會議與相關專家學者、系友、教師、產業人士等進行諮詢與討論。再經系務會議討論通過後實施，我們所建立之雙循環持續改進機制，能確保系所發展方向、教育目標與課程規劃符合業界需求。