

授課教師：郭輝龍

Instructor: KUO, HUI-LUNG

課程名稱：建築設備

Course Title : Building Utilities

2026/5/6

課程代號：CT4008701 Course Code 學分數：3 Credits	必選修：選修/半學年 Required/Elective: Elective/Half Yr. 先修課程： Prerequisites
節次教室：T7(IB-608) T8(IB-608) W8(IB-608) Time/Location	
專業核心能力： Core Professional Competencies <ol style="list-style-type: none"> 1. 具有管理與執行工程實務以及使用現代化科技之能力。 An ability to use techniques and skills to manage or execute engineering projects and to efficiently use modern tools and technologies. 2. 具有設計營建工程元件及系統之能力。 An ability to plan and design components and processes in construction engineering projects. 3. 具有溝通、協調及團隊合作之能力。 An ability to work and collaborate in a team with effective communications. 	
課程網址： Course Website	
課程宗旨： Course Objectives <ol style="list-style-type: none"> 1. 了解機電設備之種類與材質特性 Understand the types and material characteristics of Building Utilities. 2. 增進機電設備之應用能夠學以致用 Improve the application of Building Utilities and study it. 3. 加強機電設備工程管理 Strengthen engineering management of Building Utilities. 	
課程大綱： Outline of Lectures <ol style="list-style-type: none"> 1. 機電設備工程概論 2. 空調工程(1) 3. 空調工程(2) 4. 消防設備工程 5. 管路工程 6. 水泵的應用 7. 機電工程相互匹配 8. 低壓電力工程及中央監控設備 9. 升降設備工程 10. 機電設備工程介面整合 11. 機電設備應用於綠建築設計 12. 期中考試 13. 期末報告 <ol style="list-style-type: none"> 1. Introduction of Building Utilities 2. HVAC Engineering (1) 3. HVAC Engineering (2) 4. Fire Protection Engineering 5. Piping, Water Supply and Sanitary Engineering 6. Pump Application 7. Mechanical and Electrical Engineering Internal Supports 8. LV Power Engineering and Central Control Equipment 9. Escalator and Elevator Engineering 10. Integration of Building Utilities Engineering Interfaces 11. Building Utilities Application for Green Building Design 12. Midterm Examination 13. Weeks - Final Reports 	

授課方式： Method of Instruction	講授 Lecture：50% 分組討論 Group discussion：0% 案例研討 Case study：50% 操做練習 Practical exercises：0% 講授 Lecture：%
教科書： Textbooks	自編的設計題目、計算題目，是PPT檔.
參考書目： References	建築設備概論 /莊嘉文/ 詹氏書局 建築設備/陳啓中/詹氏書局
修課須知： Notice	無助教，不必很勵害才來學，來學了才會變很勵害
評量方式： Grading	1出席20% 2課堂練習或作業20% 3期中考30% 4期末考30%
備註說明： Notes	