國立台灣科技大學 114學年 第2學期　課程大綱

Spring 2026 NTUST Course Outline

授課教師：江佳穎

Instructor:Chia-Ying Chian

課程名稱：質能均衡

Course Title：Material and Energy Balances

2026/11/3

課程代號：CH2201302 Course Code 學分數：3 Credits	必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites
節次教室：R10(IB-502) R9(IB-502) W2(IB-502) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	介紹化工質量、能量平衡之原理與計算。內容包括單位轉換、質量平衡、能量平衡、物理性質之計算。目的在使學生能列出質能平衡之基本公式尋找相關物性資料以及解出問題。 This class is intended to serve as an introduction to the principles and techniques used in the field of chemical engineering as well as biological, petroleum, and environmental engineering. The primary objective of this class is to train you how to systematically formulate and solve material and energy balance problems. This class is organized as follows: Part I Introduction: background information. Part II Material balances: how to formulate and solve material balances. Part III Gas, Vapors, and Liquids: how to describe gases and liquids. Part IV Energy balances: how to formulate and solve energy balances.
課程大綱： Outline of Lectures	介紹化工質量、能量平衡之原理與計算。內容包括單位轉換、質量平衡、能量平衡、物理性質之計算。目的在使學生能列出質能平衡之基本公式尋找相關物性資料以及解出問題。
授課方式： Method of Instruction	講授 Lecture：% 分組討論 Group discussion：% 案例研討 Case study：% 操做練習 Practical exercises：% 講授 Lecture：%
教科書： Textbooks	
參考書目： References	
修課須知： Notice	
評量方式： Grading	

備註說明：
Notes