

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：洪儒生

Instructor:Lu-Sheng Hong

課程名稱：反應工程

Course Title : Chemical Reaction
Engineering

2026/6/22

課程代號： CH3206302 Course Code	必選修：必修/半學年 Required/Electve:Required/Half Yr.
學分數： 3 Credits	先修課程： Prerequisites
節次教室： F3(IB-410-1) F4(IB-410-1) W2(IB-410-1) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	討論均系與不均系化學反應系統的設計、化學反應方程式與反應器之選擇、反應動力數據的獲得與分析、以及反應速率與反應機構間之關係、並對催化反應作簡要介紹。 "Chemical Reaction Engineering" aims to provide discussion of chemical reactor analysis and design. This is discussed based on mole balance analysis, in combination with reactor operating mode and conditions. The chemistry descriptors of a reaction such as conversion and rate equation are also included in the discussion. Furthermore, this course will discuss the rate equation of catalytic reactions and the possible mechanism.
課程大綱： Outline of Lectures	討論均系與不均系化學反應系統的設計、化學反應方程式與反應器之選擇、反應動力數據的獲得與分析、以及反應速率與反應機構間之關係、並對催化反應作簡要介紹。 "Chemical Reaction Engineering" aims to provide discussion of chemical reactor analysis and design. This is discussed based on mole balance analysis, in combination with reactor operating mode and conditions. The chemistry descriptors of a reaction such as conversion and rate equation are also included in the discussion. Furthermore, this course will discuss the rate equation of catalytic reactions and the possible mechanism.
授課方式： Method of Instruction	講授 Lecture : 80% 分組討論 Group discussion : 0% 案例研討 Case study : 10% 操做練習 Practical exercises : 10% 講授 Lecture : %
教科書： Textbooks	書名： Elements of Chemical Reaction Engineering 版本： 第 6 版 (6th Edition, Global Edition) 作者： H. Scott Fogler 出版年份： 2022 出版社： Pearson ISBN-13： 978-1-292-41666-3
參考書目： References	

修課須知：
Notice

評量方式： 期中考+期末考 (80%)
Grading 平時作業 (10%)
 案例研討 (分組) (10%)

備註說明：
Notes