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：林宗寬

Instructor:LIN TSUNG KUAN

課程名稱：化學(下)

Course Title：Chemistry (II)

2026/11/3

課程代號： CH165B003 Course Code 學分數： 3 Credits	必選修：必修/全學年 Required/Electve:Required/Full Yr. 先修課程： Prerequisites
節次教室： F2(IB-501) F3(IB-501) R2(IB-501) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	介紹原子結構、化學鍵、焓、電子組態、週期表、分離方法、沈澱反應、酸鹼反應和電化學電池。 Topics include atomic structure, electronic configurations, periodic table, chemical bonds, molecular structure, chemical equilibrium and oxidation-reduction reaction.
課程大綱： Outline of Lectures	介紹原子結構、化學鍵、焓、電子組態、週期表、分離方法、沈澱反應、酸鹼反應和電化學電池。 Topics include atomic structure, electronic configurations, periodic table, chemical bonds, molecular structure, chemical equilibrium and oxidation-reduction reaction. Chapter 2 Atoms, Molecules, and Ions, Naming Compounds Chapter 3 Stoichiometry Chapter 4: Types of Chemical Reactions and Solution Stoichiometry Chapter 5: Gases Chapter 6: Chemical Equilibrium Chapter 7: Acids and Bases Chapter 8: Applications of Aqueous Equilibria Chapter 9: Energy, Enthalpy, and Thermochemistry Chapter 10: Spontaneity, Entropy, and Free Energy Chapter 11: Electrochemistry Chapter 12: Quantum Mechanics and Atomic Theory Chapter 13: Bonding: General Concepts Chapter 14: Covalent Bonding: Orbitals Chapter 15: Chemical Kinetics Chapter 16: Liquids and Solids Chapter 17: Properties of Solutions Chapter 18: The Representative Elements Chapter 19: Transition Metals and Coordination Chemistry
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:Chemical Principles 8/e Asia Edition
作者:Steven S. Zumdahl,Donald J.DeCoste
出版社:Cengage Learning
ISBN：9789814834216
年份：2017年8版

參考書目：
References

修課須知：
Notice

評量方式：
Grading

備註說明：
Notes