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：楊螢蓁

Instructor:Yang yingchen

課程名稱：化學實習(下)

Course Title：Chemistry Lab. (II)

2026/11/3

課程代號： CH175B001 Course Code 學分數： 1 Credits	必選修：必修/全學年 Required/Electve:Required/Full Yr. 先修課程： Prerequisites
節次教室： W6(T2-412) W7(T2-412) W8(T2-412) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	實習內容包括基本操作、結晶、濾紙色層分析 、蒸餾和滴定等基本實驗及工業上有趣的實驗。 1.To introduce the student to the fundamentals physical observation and to the scientific method. 2.To acquaint the student with several basic quantitative techniques ,including gravimetric and volumetric measurement,care and use of laboratory equipment,and the safe use and handling of chemicals. 3.Each experiment includes ：an introduction,experimental
課程大綱： Outline of Lectures	實習內容包括實驗介紹、水的硬度測量、再結晶、熔點測定、阿斯匹靈之製備與水解、肥皂的製備及檢驗、非皂質中性洗面霜與洗髮精之調製、抗菌潔手露、維他命C測量、廢鋁回收、蛋白質檢測等實驗 1. Course Introduction and Lab Cleaning 2.. Determination of the Hardness of Water 3. Determination of Melting Point 4. Recrystallization 5. Preparation and Testing of Soap 6. Preparation of Aspirin 7. Hydrolysis of Aspirin 8. Hand Sanitizer Gel 9. Quantifying vitamin C 10. Preparing Neutral Non-soap Facial Cleanser and Shampoo 11. Recycling Aluminum from Aluminum Can 12. Separation and Identification of Proteins 13.Final exam
授課方式： Method of Instruction	講授 Lecture：30% 分組討論 Group discussion：0% 案例研討 Case study：0% 操做練習 Practical exercises：70% 講授 Lecture：%
教科書： Textbooks	國立台灣科技大學化學工程系化學實習講義(自編)
參考書目： References	NA

修課須知： Notice	有助教TA
評量方式： Grading	1. Attendance: 15% 2. Group on duty: 5% 3. Working attitude: 20% 3. Pre-lab Report + Post-lab Report: 30% 5. Final Exam: 30% 1. 預報: 15%；結報: 15% 2. 期末考: 30% 3. 實驗態度: 20%；值日生:5% 4. 出缺席：15%
備註說明： Notes	NA