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： CE175B001 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： Time/Location	R2(T2-412) R3(T2-412) R4(T2-412)
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。 General chemistry laboratory techniques including basic lab techniques; crystallization; filtration; paper chromatography; distillation; titration, etc.
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：NA%
教科書： Textbooks	National Taiwan University of Science and Technology Department of Chemical Engineering Chemistry Laboratory Manual (Self-Compiled)
參考書目： References	NA
修課須知： Notice	NA

評量方式： Grading	1. Attendance: 15% 2. Group on duty: 5% 3. Working attitude: 20% 4. Pre-lab Report + Post-lab Report: 30% 5. Final Exam: 30%
備註說明： Notes	NA