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：Harry Hermawan

Instructor:Harry Hermawan

課程名稱：工程材料行為學

Course Title：Behavior of Engineering Materials

2026/11/4

課程代號： CT5101701 Course Code 學分數： 3 Credits	必選修：選修/半學年 Required/Electve:Elective/Half Yr. 先修課程： Prerequisites
節次教室： Time/Location	F6(IB-601-1) F7(IB-601-1) F8(IB-601-1)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	NA
課程宗旨： Course Objectives	1) Understanding the characteristics of various engineering materials 2) Develop the fundamentals of engineering properties of materials 3) Encourage students to work/research on various types of engineering materials 4) Grasp practical application of engineering materials in the world of construction
課程大綱： Outline of Lectures	1. Concept of Engineering Materials 2. Engineering Properties of Materials 3. Metals 4. Ceramic and Glasses 5. Polymers and Composites 6. Cement and Concrete
授課方式： Method of Instruction	講授 Lecture：70% 分組討論 Group discussion：15% 案例研討 Case study：0% 操做練習 Practical exercises：15% 講授 Lecture：%
教科書： Textbooks	Ashby, M.F. and Jones, D.R.H. (1996). Engineering Materials 1. Ashby, M.F. and Jones, D.R.H. (1998). Engineering Materials 2. William D. Callister, Jr. and David G. Rethwisch (2019). Material Science and Engineering.
參考書目： References	ScienceDirect, MDPI, Google Scholar
修課須知： Notice	N/A
評量方式： Grading	20% Attendance, 20% Quizzes/Homeworks/Presentations, 30% Mid-term Exam, 30% Final Exam
備註說明： Notes	Basic English is required