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：Iman Adipur

Instructor:Iman Adipurnama

課程名稱：材料力學

Course Title：Mechanics of Materials

2026/11/3

課程代號： TE2008302 Course Code 學分數： 3 Credits	必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites
節次教室： Time/Location	M1(TR-513) M2(TR-513) T1(TR-513)
專業核心能力： Core Professional Competencies	運用數學、科學及工程知識的能力。
課程網址： Course Website	
課程宗旨： Course Objectives	This course provides students with an understanding of the relation between the loads applied to a structural member and the resulting stresses and strains. The main topics covered are the analysis and design of the structural member subjected to tension, compression, torsion, and bending.
課程大綱： Outline of Lectures	1. Introduction - Statics review and Mechanics of Materials principle 2. Stress-Strain principle 3. Axial Deformation 4. Torsion 5. Transformation of Stress and Strain 6. Equilibrium of Beams 7. Stresses in Beams 8. Deflection in Beams 9. Pressure Vessels; Stresses due to combined loading 10. Buckling of Columns 11. Energy Methods 12. Special topics related to design (hole and fillet)
授課方式： Method of Instruction	講授 Lecture：45% 分組討論 Group discussion：15% 案例研討 Case study：15% 操做練習 Practical exercises：25% 講授 Lecture：%
教科書： Textbooks	Mechanics of Materials, Roy R. Craig, Jr., Eric M. Taleff., Fourth Edition, 2021
參考書目： References	Mechanics of Materials, Roy R. Craig, Jr., Eric M. Taleff., Fourth Edition, 2021
修課須知： Notice	The class will be finished in 16 weeks. The class can be switched to online if there is an emergency situation
評量方式： Grading	Quiz 20%, Midterm 30%, Final 30%, Activity and Attendance 20%

備註說明： Notes	Prerequisite: Student need to know the basic of Mathematics, Physics (especially about kinematics) and Statics.