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：吳啟哲

Instructor:Wu Chi-Che

課程名稱：結構行為(一)

Course Title：Structure Behavior (1)

2026/11/3

課程代號： AD2401302 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	M6(T4-302) M7(T4-302) M8(T4-302)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	相關資料請連結moodle
課程宗旨： Course Objectives	質點作用力、剛體作用力、力之分布與平衡、結構內力之解析、桁架結構、梁結構、剛框結構、吊索結構、摩擦力、面積之慣性矩。 This course mainly teaches the fundmental knowledge of structural behavior, including the distribution of the force, recation of the support, truss analysis, and so on. Students will learn the force distribution and calculation in the single component of the sturctural system, hence, integrating the focre distribution in the structural elements to the whole structural system, understanding how force flows in a structire system in a Architecture.
課程大綱： Outline of Lectures	質點作用力、剛體作用力、力之分布與平衡、結構內力之解析、桁架結構、梁結構、剛框結構、吊索結構、摩擦力、面積之慣性矩。 This course mainly teaches the fundmental knowledge of structural behavior, including the distribution of the force, recation of the support, truss analysis, and so on. Students will learn the force distribution and calculation in the single component of the sturctural system, hence, integrating the focre distribution in the structural elements to the whole structural system, understanding how force flows in a structire system in a Architecture. week1課程簡介/力平衡與分解 week2構造的安定及反力 week3 桁架結構系統 week4 校慶補假 week5 桁架數值模擬分析 week6 掃墓補假 week7 期中考 week8 應力與應變 week9 虛功原理 week10桁架變型分析 week11桁架實驗 week12桁架設計提案討論 week13 靜定桁架剪力彎矩圖Ⅰ week14 靜定桁架剪力彎矩圖Ⅱ week15 桁架設計發表 week16 期末考
授課方式： Method of Instruction	講授 Lecture：60% 分組討論 Group discussion：10% 案例研討 Case study：10%

	操做練習 Practical exercises：20% 講授 Lecture：%
教科書： Textbooks	自編教材
參考書目： References	靜力學(第九版) 作者： Meriam, 林忠志, 葉雲鵬 出版社：全華圖書　　出版日期：2024/05/13 語言：繁體中文
修課須知： Notice	有TA
評量方式： Grading	1. HW 1.2.3 10% + 10% + 10% 2. 期中考 30% 3. 桁架設計案　40% 4. 出席 遲到/缺席2次學期總成績*0.9 遲到/缺席3次學期總成績*0.8 遲到/缺席4次學期總成績*0.7 遲到/缺席5次以上學期總成績*0.6
備註說明： Notes	理解課, 無需先備知識