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：胡宗和

Instructor:Tzong-Her Hwu

課程名稱：熱傳學

Course Title：Heat Transfer

2026/11/3

課程代號： GD3705301 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	M4(TR-412-2) W6(TR-412-2) W7(TR-412-2)
專業核心能力： Core Professional Competencies	■ 運用數學、科學及工程知識的能力。 ■ 設計機械系統、元件、製程或材料設計、製造與跨域整合分析之能力。 ■ 能發掘、分析、應用研究成果及因應複雜且整合性工程問題之能力。 ■ 具有外語閱讀及溝通之能力。
課程網址： Course Website	https://moodle2.ntust.edu.tw/
課程宗旨： Course Objectives	This course offers students to understand the basic concepts of heat transfer, including conduction, convection, and radiation. After taking this course, students are expected to know how to determine the temperature of an object with given conditions.
課程大綱： Outline of Lectures	This course covers transport processes of momentum, and energy from a macroscopic view with emphasis both on understanding why matter behaves as it does and on developing practical problem solving skills. Course cover Introduction and Basic Concepts Heat Conduction Equation Steady Heat Conduction Transient Heat Conduction Fundamental Forced Convection Internal Forced Convection Natural Convection
授課方式： Method of Instruction	講授 Lecture：0% 分組討論 Group discussion：0% 案例研討 Case study：0% 操做練習 Practical exercises：0% 講授 Lecture：%
教科書： Textbooks	Heat and Mass Transfer: Fundamentals & Applications, Y.A. Cengel and A.J. Ghajar, McGraw-Hill
參考書目： References	
修課須知： Notice	
評量方式： Grading	midterm exam, final exam

備註說明：
Notes