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：羅承慈

Instructor:Chen-Tsyr Lo

課程名稱：工程數學(二)

Course Title：Engineering Mathematics (II)

2026/11/3

課程代號：GD3002303 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：M7(TR-313) W3(TR-313) W4(TR-313) Time/Location	
專業核心能力： Core Professional Competencies	培養學生具備了解常微分方程式之級數解、特殊函數、傅立葉轉換、偏微分方程式、複變數理論之觀念與核心能力。
課程網址： Course Website	https://moodle2.ntust.edu.tw/
課程宗旨： Course Objectives	介紹工程系統數學模式化及求取數值解之方法，包含向量、矩陣、傅立葉級數、複數、偏微分方程式。 The purpose of this course is to train undergraduate students to be well-know the basic skills of engineering mathematics firstly. Then they can have the primary ability to establish the model for practical materials science and engineering problem. In this semester, we’ll focus on the following topics: Vectors, Matrices, Fourier Series, and PDE.
課程大綱： Outline of Lectures	介紹工程系統數學模式化及求取數值解之方法，包含向量、矩陣、傅立葉級數、複數、偏微分方程式。 The purpose of this course is to train undergraduate students to be well-know the basic skills of engineering mathematics firstly. Then they can have the primary ability to establish the model for practical materials science and engineering problem. In this semester, we’ll focus on the following topics: Vectors, Matrices, Fourier Series, and PDE.
授課方式： Method of Instruction	講授 Lecture：70% 分組討論 Group discussion：20% 案例研討 Case study：10% 操做練習 Practical exercises：0% 講授 Lecture：%
教科書： Textbooks	Zill, Dennis G. Advanced engineering mathematics. 7th edition. Jones & Bartlett Publishers, 2022. ISBN 9781284240771（台灣代理商：滄海圖書 0938-723438）
參考書目： References	(Optional) E. Kreyszig, Advanced Engineering Mathematics, 10th edition, John Wiley & Sons, Inc., New York. (Optional) O’Neil, Peter V. Advanced engineering mathematics. 8th edition. Cengage Learning. *All additional references will be listed on the course webpage throughout the semester.
修課須知： Notice	

評量方式： Grading	50% Homework assignments and PBL discussion 25% Midterm exam 25% Final exam *Note on Homework: All homework assignments should be submitted via Moodle. Submitting with the 24 hours past the deadline your score for that assignment will be deducted by 40%; after 24 hours, score = zero. **Note on Exam: You are allowed to bring one A4 note to the exam. There will be NO make-up exam
備註說明： Notes	This course does not have any specific requests. Welcome to join us for training your skills in learning in English.