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：劉建宏

Instructor:Liu Chien Hung

課程名稱：微積分(下)

Course Title：Calculus (II)

2026/11/4

課程代號： EE161B002 Course Code 學分數： 4 Credits	必選修：必修/全學年 Required/Electve:Required/Full Yr. 先修課程： Prerequisites
節次教室： Time/Location	R6(EE-407) R7(EE-407) T3(IB-401) T4(IB-401) WA(EE-407)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	The course follows Calculus (I), and will complete the whole calculus discipline. The major topics include parametric equations, polar coordinate, vector-valued function, partial derivative, directional derivative, multiple integration, and vector analysis. Students will learn the important principles and results in calculus and get familiarized the process of transforming practical problems into mathematical model to facilitate problem.
課程大綱： Outline of Lectures	CH 8　Parametric equations and Polar coordinate (參數方程式與極座標) CH 9　Vectors and Geometry of space (空間向量與空間座標) CH 10　Vector-valued functions (空間向量函數) CH 11　Functions of several variables (多變數函數與其導數) CH 12　Multiple integral (多重積分) CH 13　Vector analysis (向量分析: 線積分與面積分)
授課方式： Method of Instruction	講授 Lecture：100% 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	ESSENTIAL CALCULUS by Larson and Edwards
參考書目： References	Lecture notes will be published on Moodle2 platform
修課須知： Notice	TA will host the quizzes and weekly practices from PM 06:25 to PM 07:15 on every Wednesday
評量方式： Grading	Midterm 30% Final 40% Quiz 30%
備註說明： Notes	Prerequisites: CALCULUS (I)