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：陳俊良

Instructor:Jiann-Liang Chen

課程名稱：線性代數

Course Title：Linear Algebra

2026/11/3

課程代號： EE4005302 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	R8(EE-311) W6(EE-311) W7(EE-311)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	https://nas.wnecpro.com
課程宗旨： Course Objectives	This course delves into the evolving field of Linear Algebra, with a particular focus on Matrix Algebra, Linear Equations, Vector Spaces, Linear Transformations, Orthogonality, Eigenvalues, and their applications. It covers fundamental concepts, operations, and practical uses of Linear Algebra. Additionally, emerging research and development topics in the field will be introduced.
課程大綱： Outline of Lectures	At the end of the course, the student will be able to: 1.Identify and work with different Matrices and Matrix Algebra. 2.Explain some technologies associated with Linear Equation. 3.Understand and distinguish the Vector Space concepts and operations. 4.Understand and distinguish the various Linear Transformation operations. 5.Explain the operations of Orthogonal, Eigenvalue and Eigenvector. 6.Understand the Applications through Linear Algebra Operations.
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：No.%
教科書： Textbooks	Steven J. Leon and Lisette de Pillis, Linear Algebra with Applications, 10th, Pearson, 2021.
參考書目： References	Instructor's notes and selected web sites.
修課須知： Notice	This course is an EMI (English as a Medium of Instruction) course. If you have difficulty understanding the content, you may seek assistance from the instructor or teaching assistants, as well as utilize the EMI resources provided by the university for additional support.
評量方式： Grading	Midterm (In-class test): 40%； Homework (2 times):20%； Final Test(In-class test):40%

備註說明： Notes	1.Basic algebraic concepts. 2.Basic English listening and writing skills.