

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：周詩梵

Instructor:Chou, Shih-Fan

課程名稱：線性代數

Course Title : Linear Algebra

2026/5/6

<p>課程代號： CS1006302 Course Code</p> <p>學分數： 3 Credits</p>	<p>必選修：必修/半學年 Required/Elective:Required/Half Yr.</p> <p>先修課程： Prerequisites</p>
<p>節次教室： M3(TR-410) M4(TR-410) R2(TR-410) Time/Location</p>	
<p>專業核心能力： Core Professional Competencies</p>	
<p>課程網址： Course Website</p>	
<p>課程宗旨： The main goal of this course is to help students master the basic concepts and skills they will use later in their careers. The course objectives are: Course Objectives</p> <ol style="list-style-type: none"> 1. Develop knowledge and skills necessary for linear algebra. 2. Enable students to harness MATLAB software to solve linear algebra problems. 3. Incorporate mathematical tools into various fields of applications. 	
<p>課程大綱： This course covers mainly the following contents: Outline of Lectures</p> <ol style="list-style-type: none"> 1. Matrices and Systems of Equations 2. Determinants 3. Vector Spaces 4. Linear Transformations 5. Orthogonality 6. Eigenvalues 7. Numerical Linear Algebra 8. Canonical Forms 	
<p>授課方式： 講授 Lecture：80% Method of Instruction</p> <p>分組討論 Group discussion：0%</p> <p>案例研討 Case study：0%</p> <p>操做練習 Practical exercises：20%</p> <p>講授 Lecture：%</p>	
<p>教科書： Linear Algebra with Applications, Ninth Edition, Gareth Stetson Williams, 2019, 978-1-284-120097, Jones & Bartlett Learning. Textbooks</p>	
<p>參考書目： 1.Linear Algebra with Applications, Steve Leon, Lisette de Pillis, 2020, 978-1-292-35486-6, Pearson. References</p> <p>2.Linear Algebra and its Applications, David C. Lay, Judi J. McDonald, Steven R. Lay, 2021, 978-1-292-35121-6, Pearson.</p>	
<p>修課須知： Notice</p>	
<p>評量方式： Grading</p>	

Grading:
Midterm Exam: 35%
Final Exam: 35%
Programming Practices: 30%

備註說明： Method of Instruction :
Notes Lecture : 80%
Practical exercises : 20%