

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：黃琴雅

Instructor: CHIN-YA HUANG

課程名稱：線性系統

Course Title : Linear System

2026/5/5

課程代號： ET3105302 Course Code 學分數： 3 Credits	必選修：必修/半學年 Required/Elective: Required/Half Yr. 先修課程： Prerequisites
節次教室： T4(E2-102) W6(EE-406) W7(EE-406) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Moodle Course Website	
課程宗旨： Course Objectives (1) Signals and Systems (2) Linear Time-Invariant Systems (3) Fourier Series Analysis (4) Continuous-Time Fourier Transform (5) Laplace Transform (6) Discrete-Time Fourier Transform (7) Z-transform (8) Sampling, Filtering, and Modulation	
課程大綱： Outline of Lectures (1) Signals and Systems (2) Linear Time-Invariant Systems (3) Fourier Series Analysis (4) Continuous-Time Fourier Transform (5) Laplace Transform (6) Discrete-Time Fourier Transform (7) Z-transform (8) Sampling, Filtering, and Modulation	
授課方式： Method of Instruction 講授 Lecture：90% 分組討論 Group discussion：0% 案例研討 Case study：10% 操做練習 Practical exercises：0% 講授 Lecture：%	
教科書： Textbooks 1. S. Haykin, Signals and Systems, 2nd Ed., Wiley, 2003. 2. A. V. Oppenheim, Signals and Systems, 2nd Ed., Pearson, 1997.	
參考書目： N/A References	
修課須知： N/A Notice	
評量方式： Homework 10%, Midterm 45%, Final 45% Grading	
備註說明： Notes	

This is EML course so that students need to have basic listening, speaking, reading and writing skills.  
This course also requires the fundamental knowledge of the following courses, Calculus, Differential Equation, Circuit.