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：金台齡

Instructor:Tai-Lin Chin

課程名稱：數位無線通訊與網路

Course Title：Digital Wireless Communications and Networks

2026/11/3

課程代號：CS5101701 Course Code 學分數：3 Credits	必選修：選修/半學年 Required/Electve:Elective/Half Yr. 先修課程： Prerequisites
節次教室：T2(TR-311) T3(TR-311) T4(TR-311) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址：https://moodle2.ntust.edu.tw/ Course Website	
課程宗旨： Course Objectives	In this course, we will cover several topics in wireless and mobile systems, including a brief introduction to physical layer issues, media access control, routing protocols for wireless ad hoc networks, sensor networks, and cellular systems, as well as fundamental probability and queuing theory.
課程大綱： Outline of Lectures	- Wireless communication fundamentals - Signal encoding - OFDM - Wireless networking; IEEE 802.11, WiFi - Ad hoc networks, sensor networks - Cellular systems
授課方式： Method of Instruction	講授 Lecture：90% 分組討論 Group discussion：0% 案例研討 Case study：0% 操做練習 Practical exercises：10% 講授 Lecture：%
教科書： Textbooks	Cory Beard, William Stallings, “Wireless communication networks and systems”, Pearson, 2016, ISBN-13 978-1-292-10871-1
參考書目： References	Dharma Prakash Agraval, Qing-An Zeng, “Introduction to wireless & mobile systems”, 4th edition, Cengage Learning, 2016, ISBN-13 978-1-305-25962-1.
修課須知： Notice	N/A
評量方式： Grading	Midterm 50%　Final 50%
備註說明： Notes	N/A