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：馮輝文

Instructor:Huei-Wen Ferng

課程名稱：無線與行動網路概論

Course Title：Introduction to Wireless and Mobile Networks

2026/11/3

課程代號：CS3032701 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：M6(T4-301) M7(T4-301) W2(T4-301) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	This course, i.e., Introduction to Wireless and Mobile Networks, aims to familiarize students with the techniques and systems of wireless and mobile networks. Additionally, students are expected to have the ability to evaluate the existing system and explore a new system for further study.
課程大綱： Outline of Lectures	1. Introduction 2. Probability, Statistics, and Traffic Theories 3. Mobile Radio Propagation 4. Channel Coding and Error Control 5. Cellular Concept 6. Multiple Radio Access 7. Multiple Division Techniques for Traffic Channels 8. Traffic Channel Allocation
授課方式： Method of Instruction	講授 Lecture：80% 分組討論 Group discussion：10% 案例研討 Case study：10% 操做練習 Practical exercises：0% 講授 Lecture：%
教科書： Textbooks	Introduction to Wireless & Mobile Systems (4th Edition) Dharma P. Agrawal Qing-An Zeng Publisher: Cengage Learning
參考書目： References	1. K. Pahlavan and K. Krishnamurthy, “Principles of Wireless Networks,” Prentice Hall. 2. A. Ganz, Z. Ganz, and K. Wongthavarawat, “Multimedia Wireless Networks - Technologies, Standards, and QoS,” Prentice Hall 3. C. K. Toh, “Ad Hoc Mobile Wireless Networks: Protocols and Systems,” Prentice Hall. 4. T. S. Rappaport, “Wireless Communications: Principles and Practice,” Prentice Hall. 5 David J. Goodman, “Wireless Personal Communications Systems,” Addison Wesley.

修課須知： Notice	1. EMI-Oriented Course 2. Participation-Included Assessment
評量方式： Grading	1. Final Exam 30% 2. Oral Presentation of the Final Report 10% 3. Final Report 30% 4. Participation 20% 5. Attendance 10%
備註說明： Notes	Probability Theory and Statistics