

科號 Course Number: EE364000

學分 Credit: 3

中文名稱 Course Title: 通訊系統一

英文名稱 Course English Title: Communication Systems (I)

任課教師 Instructor: 馮開明 (Office: 台達館 921)

上課時間 Time: Monday 1:20 PM ~ 3:10 PM, Thursday **1:00 PM** ~ 2:10 PM,

上課教室 Room: 台達館 209

Office Hours: Thursday 3:30 ~ 5:00 PM

課程助教: TBD 辦公室: 資電館 308 室

一、課程說明 (Course Description)

This course covers the fundamentals of communication systems, including the random process, communication noise process, analog modulation/demodulation, sampling process, baseband digital modulation/demodulation, and equalization. Students can learn much about the basic concepts of communication systems, message/data transmission and receiving, and some important theorems for communications.

二、指定用書 (Text Books)

Simon Haykin, Communication Systems, 5th Edition, John Wiley & Sons, 2010.

三、參考書籍 (References)

1. Rodger E. Ziemer and William H. Tranter, Principles of Communications: Systems, Modulation, and Noise," 6th Ed., John Wiley & Sons, 2010.
2. John G. Proakis and Masoud Salehi, "Essentials of Communication Systems Engineering," Pearson Education, Inc., 2005.
3. Simon Haykin, Communication Systems, 4th Edition, John Wiley & Sons, 2001.

四、教學方式 (Teaching Method)

Lectures

五、教學進度 (Syllabus)

1. Introduction to Communication Systems
2. Fourier Theory and Communication Signals
3. Amplitude Modulation
4. Phase and Frequency Modulation
- Midterm Exam**
5. Random Variables and Processes
6. Noise in Analog Modulation

- 7. Digital Representation of Analog Signals
- 8. Baseband Transmission of Digital Signals

Final Exam

六、成績考核 (Evaluation)

Quiz: 10%

Homework: 25%

作業請勿抄襲。如經助教認定抄襲，被抄襲與抄襲者該次作業以-100計算！

Midterm Exam: 30%

Final Exam: 35%

七、可連結之網頁位址

<http://moodle.nthu.edu.tw/>