

ECM3501: Principles of Communication Engineering

Po-Ning Chen, Professor
Dept. of Communications Eng.
National Chiao Tung University

Syllabus

Textbook & Lecturer

Textbook

- Simon Haykin, *Communication Systems*, 4rd edition, John Wiley & Sons, 2001.

Lecturer Information

- Name: Po-Ning Chen (陳伯寧)
- Office: ED 831
- Office Phone: (03) 5731670
- E-mail: qponing@mail.nctu.edu.tw

Time/Place & Notes

Lectures are delivered on

- every Tuesday CD;
- every Thursday GH.

Lectures are delivered at

- 工程五館106教室

Website for PDF-formatted handouts

- <http://shannon.cm.nctu.edu.tw/comtheory.htm>
(Or <http://140.113.13.233/comtheory.htm>)

TA Information

Teaching Assistants

- **王晨屹** ext. 54570 ED 823 bbnctu@hotmail.com
- **蘇敬堯** ext. 54570 ED 823 yaao27757@hotmail.com

Office Hours of TAs

- Wednesday EF at ED823 (or by appointment through emails)

Exams and Quizzes

First Midterm

- A **two-hour** exam on **March 29**.
- Cover what has been lectured thus far.

Second Midterm

- A **two-hour** exam on **May 10**.
- Cover what has been lectured after the first midterm.

Final

- A **two-hour** exam on **June 26**.
- Cover what has been lectured after the second midterm.

Exams and Quizzes

□ Quizzes

- 隨堂考將於加退選截止日 (3月9日)後，除期中考與期末考週外，每週舉行一次，考試題目會於前一週(3月5日始)在網站上公佈，於下一週的四堂課當中，隨機找一堂課發考卷，當場作答，考十分鐘。

Exams and Quizzes

□ 學期原始成績 = Sum of

- $80\% \times [40\% \times \text{兩次期中考與期末考的最高分} + 40\% \times \text{兩次期中考與期末考的次高分} + 20\% \times \text{兩次期中考與期末考的最低分}]$
- $20\% \times [\text{隨堂考平均}]$

Schedule

日期	預定進度
2/27	Background and Preview
3/1與3/6	Chapter 1 Random Processes: Section 1.1~1.5
3/8與3/13	Chapter 1 Random Processes: Section 1.6~1.10
3/15與3/20	Chapter 1 Random Processes: Section 1.11~1.15 Chapter 2 Continuous-Wave Modulation: Section 2.1~2.3
3/22與3/27	Chapter 2 Continuous-Wave: Section 2.4~2.7
3/29	第一次期中考: 預定範圍 Background & Preview, Section 1.1~Section 2.7
4/3與4/10	Chapter 2 Continuous-Wave: Section 2.8

Schedule

4/12與4/17	Chapter 2 Continuous-Wave: Section 2.9~2.13
4/19與4/24	Chapter 2 Continuous-Wave: Section 2.14~2.15
4/26與5/1	Chapter 3 Pulse Modulation: Section 3.1~3.6
5/3與5/8	Chapter 3 Pulse Modulation: Section 3.7~3.12
5/10	第二次期中考: 預定範圍 Section 2.8~Section 3.12
5/15與5/17	Chapter 3 Pulse Modulation: Section 3.13~3.18
5/22與5/24	Chapter 4 Baseband Pulse Transmission: Section 4.1~4.3
5/29與5/31	Chapter 4 Baseband Pulse Transmission: Section 4.4~4.8
6/5與6/7	Chapter 4 Baseband Pulse Transmission: Section 4.9~4.12

Schedule

6/12與6/14	Chapter 5 Signal-Space Analysis: Section 5.1~5.5
6/21	Chapter 5 Signal-Space Analysis: Section 5.6~5.8
6/26	期末考: 預定範圍 Section 3.13~Section 5.8