

Portland State University *Electrical and Computer Engineering*
ECE 461/561: Communication Systems Design I
(4 Credits) Winter 2012

- Class schedule: Tuesday and Thursday: 6:40 - 8:30 PM
- Instructor: Prof. Fu Li
- Office hours: Tuesday and Thursday: 3:30 - 4:30 PM, or by email appt.
- Fab 160-10, 5-3824 or lif@pdx.edu
- TA:

Textbook:

- Introduction to Communication Systems, 3rd edition, by Ferrel G. Stremler, Addison Wesley, 1994, PSU Bookstore.

References:

- Contemporary Communication Systems **Using Matlab**, by J. Proakis and M. Salehi, PWS, 2008
- Modern Digital and Analog Communication Systems, 4th edition, by B. P. Lathi, HRW, 2009.
- Communication Systems, 3rd Edition, by S. Haykin, Wiley, 1994

Course descriptions

- An introduction to signals and noise in electrical communication systems, signal spectra and filters, noise and random signals, baseband transmission of analog and digital signals, linear modulations and exponential modulation.

Introductory discussion on new communication technologies, such as DSL, WLAN (IEEE 802.11), WPAN (Bluetooth), 3G & NGN, etc.

Prerequisite:

- ECE 222 & E223: Signals and Systems, or equivalent.

Grading policy:

- Attendance is required to pass the course.
- Final grade will be based upon: homework 0 %, two mid-quiz 50% and final exam 50%.
- Lecture Notes (Solutions to homework assignments are included) are available at Clean Copy.

Have fun!