Course Mechanics:

Pre-requisites: ECE241: Signals, MTH 201: Introduction to Probability, and MATLAB familiarity, (or instructor permission)
Credit Hours: 4
Lecture format: twice a week, Mon, Wed 3:25-4:40pm, Room CSB209
Recitation: once a week Thu, 4:50pm-6:05pm, mandatory.

Course Objective:

The course is intended to provide students a basic foundation in communication systems. Coverage includes analog modulation methods, frequency domain analysis, signal-to-noise performance evaluation for analog modulation methods, and elementary concepts from digital communications.

Course Outline:

1. Introduction and Motivation.
2. Frequency Domain Analysis of Signals & Systems.
3. Analog Signal Transmission & Reception
5. Effect of Noise on Analog Communication Systems.
6. Information Sources & Source Coding.


References:

The reference books are available on reserve at the library for the duration of this semester.

**Grading:**

- Homework: 30%
- Labs: 10%
- Midterm: 30%
- Final: 30%

**Instructor:**

Prof. Gaurav Sharma  
Office: Hopeman 417  
Office hours: 9:30-10:30am Wed  
Homepage: [http://www.ece.rochester.edu/~gsharma](http://www.ece.rochester.edu/~gsharma)

**Teaching Assistants:**

- Michael (Gang) Ren  
  Email: niccstudio@gmail.com  
  Office: Hopeman 332  
  Office Hours: Tuesdays, 11am-12:30pm, other times by appointment.

- Junwen Mao  
  Email: jumao@ece.rochester.edu  
  Office: Hopeman 334  
  Office Hours: Tuesdays, 4:00pm-5:30pm, other times by appointment.

**Course Web Sites:**

Homework assignments, project suggestions and general announcements relating to the class will be posted on the BlackBoard course web-site located at:

[http://my.rochester.edu](http://my.rochester.edu)

You will need your UR NETID to access the BlackBoard course content.

The course sheet and general information on the class is also available at the ECE course website:

[http://www.ece.rochester.edu/courses/ECE242](http://www.ece.rochester.edu/courses/ECE242)

**Academic Honesty Policy:**

The University of Rochester academic honesty policy applies to all assignments and exams for this class. The full-text of the academic honesty policy can be found at:

[http://www.rochester.edu/College/CCAS/AdviserHandbook/AcadHonesty.html](http://www.rochester.edu/College/CCAS/AdviserHandbook/AcadHonesty.html)

In addition to the general guidelines mentioned in the above policy, for this course I require that:

In examinations, you must work individually with no communication with others and use only materials/tools that have been explicitly allowed. For homework, you may discuss problems with your colleagues but final solutions need to be worked out, written and submitted individually. Any external material used should be cited.