

ECE 5033, Probability and Random Processes Course Information

Course Instructor: Iyad Obeid

Contact Information: 215-204-9033, iobeid@temple.edu

Lecture: Monday: 5:30 – 8:00 pm; Engineering Room 309

Office Hours: by appointment [here](#)

Text Book: *Intuitive Probability and Random Processes using Matlab*, by Steven Kay, Springer, 2006

Course Description and Outline:

The general objectives of this introductory graduate course are to provide a review of probability and random variables, an understanding of statistical signal representation, and an introduction to basic statistical signal processing problems and methods.

- Sets and events
- Random variables
- Distribution and density functions
- Functions of multiple random variables
- Moments and conditional statistics
- Stochastic processes
- Wide-sense stationary process, ergodicity, correlation, and power spectrum of stationary processes
- Optimal Filtering

Grading Policy:

- Class participation----- 10%
- Weekly homework ----- 20%
- Project 1----- 20%
- Project 2----- 20%
- Test 1 ----- 15%
- Test 2 ----- 15%

Failure to take either test or complete either project will result in failure from the course.

University Policy Statements:

Please refer to the [College of Engineering Policies and Procedures website](#) regarding the policies and procedures you are responsible for in this course.