

EE 342: Probability and Statistics (Fall '16)

Instructor:

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Prerequisites:

1) EE 315 Signal and Systems Analysis (can be taken concurrently)

Classes:

MWF 10:30-11:20; POST 127

Office hours:

Immediately after class on MF

Homework:

There is one homework set per week. Assigned on Wed; due the following Wed.

Grading:

HW: 20% (assignments)

MT1: 20%

MT2: 20%

Final: 40% (exam directory)

Textbook:

Sheldon Ross, *A First Course in Probability* (8th or 9th edition).

Course contents:

This course covers the fundamental concepts of probability and statistics. Throughout the course, probabilistic methods are applied to problems which arise in communications, networking, electro-physics, and computer engineering. The topics covered are

- Combinatorial Analysis (2 hrs)
- Axioms of Probability (3 hrs)
- Conditional Probability and Independence (3 hrs)
- Discrete random variables (4 hrs)
- Continuous random variables (5 hrs)
- Random vectors (6 hrs)
- Properties of expectation, variance and correlation (6 hrs)
- Limit theorems (4 hrs)
- Statistics, parameter estimation, mean-square estimation, goodness of fit tests and confidence intervals (5 hrs)
- Monte Carlo simulation (2 hrs)

KOKUA program:

If you feel you need reasonable accommodations because of the impact of a disability, please contact the KOKUA program (V/T) at 956-7511 or 956-7612 in room 013 of the QLCSS.