

EE 303 PROBABILITY AND RANDOM VARIABLES

COURSE SYLLABUS

- 1.** Description of Probability
- 2.** Set Theory
- 3.** Probability Space
- 4.** Conditional Probability
- 5.** Repeated Trials (Bernoulli's Theorem)
- 6.** Random Variables
- 7.** Probability Distribution Functions
- 8.** Probability Density Functions
- 9.** Some of the Important Random Variables
- 10.** Conditional Distributions
- 11.** Functions of One Random Variable
- 12.** Mean and Variance
- 13.** Moments
- 14.** Characteristic Functions
- 15.** Two Random Variables
- 16.** Joint Moments
- 17.** Conditional Distributions
- 18.** Sequences of Random Variables
- 19.** Mean Square Estimation
- 20.** Correlation and Covariance
- 21.** Noise (White and Colored)
- 22.** Power Spectrum
- 23.** Limit Theorems
- 24.** Statistics