

ESE 306 Syllabus Summer 2018

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Course Objective: To give students a strong background in probability and stochastic processes.

Text: Probability, Statistics and Random Signals by Charles Boncelet, Oxford University Press, 2016.

- 1: Probability Basics (Chapter 1)
2. Conditional Probability (Chapter 2)
3. A Little Combinatorics (Chapter 3)
4. Discrete Probabilities and Random Variables (Chapter 4)
5. Multiple Discrete Random Variables (Chapter 5)
6. Binomial Probabilities (Chapter 6)
7. A Continuous Random Variable (Chapter 7)
8. Multiple Continuous Random Variables (Chapter 8)
9. The Gaussian and Related Distributions (Chapter 9)
10. Elements of Statistics (Chapter 10)
11. Hypothesis Testing (Chapter 12)
12. Random Signals and Noise (Chapter 13)
13. Selected Random Processes (Chapter 14)

Grading:

Midterm: 40%, Final: 40% Portfolio 20%

Portfolio

The portfolio is a collection of 5 problems and answers you create yourself and are not copied from any other source. It must be hand written – Xeroxes are not allowed. The only restriction is that no more than one problem can come from any chapter. It is due towards the end of the course. Extra credit is possible for original and well done problems.

*. **Note:** If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, I would urge you to contact the staff in the Disabled Student Services office (DSS) 631-632-6748. DSS will review your concerns and determine with you what accommodations are necessary and appropriate. All information and documentation of disability are confidential.*