Probability and Random Processes
STA 3533 (Ten week term, Summer 2001)

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Office Hours: TR 9:30 – 11:00 am, or by appointment

Course Objectives: To introduce probability concepts to Electrical Engineering students as needed for applications in signal processing, communication systems, and information theory.

Scope: This course will cover basic probability, discrete and continuous distributions, joint distributions, expected values, covariance, correlation, transformations of random variables, autocorrelation and autocovariance for random processes. Examples from electrical engineering are included.

Text: Probability and Random Processes for Electrical Engineering, 2nd edition
by Alberto Leon-Garcia.

Prerequisite: MAT 2213 (Calculus III) and EE 3423

Syllabus:

Chapter 1:	Probability Models.
Chapter 2:	Basic Concepts of Probability Theory, sections 2.1, 2.2, 2.4 - 2.7.
Chapter 3:	Random Variables, sections 3.1 - 3.6, 3.9.
Chapter 4:	Multiple Random Variables, sections 4.2 - 4.4, 4.7.
Chapter 5:	Sums of Random Variables, sections 5.1 - 5.3.
Chapter 6:	Random Processes, sections 6.1 - 6.4.
Chapter 7:	Analysis and Processing of Random Signals, sections 7.1, 7.2.

Grading:

Homework:	20%	(Due in class on 6/7, 6/14, 6/28, 7/12, 7/26)
Class exercises:	20%	(Group work in class)
Group Exams:	30%	(In class 6/21, 7/19)
Individual Exam:	30%	(In class 7/5)

(Note: There is no final exam for this course!!!)

NO MAKEUP EXAM will be given except for emergency or medical reasons. In such cases, the student should submit a written request accompanied by official documents to arrange for a makeup test. **Overdue assignments** will only be accepted for a good reason. However, the instructor reserves the right to discount part or all of the credit for any late homework.

LAST DAY TO DROP an individual course and receive a grade W is 7/11.