CALIFORNIA STATE UNIVERSITY, HAYWARD
DEPARTMENT OF STATISTICS

Statistics 3401 Introduction to Probability Theory I
Fall 2001

Lecture: MW 6-8, NSc 207

Instructor: Prof. Eric A. Suess	**Office Hours:** MW 5-6pm

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Required Text:

- Wackerly, Mendenhall, and Scheaffer: Mathematical Statistics with Applications, 6th ed., Duxbury, 2002.

Topics:

In this course we will cover the fundamentals of Probability Theory.

- Rules of Probability

- Counting Rules

- Discrete and Continuous probability distributions

- Expectation and Variance of random variables

- Moment Generating Functions

- Multivariate probability distributions

- Marginal and Conditional probability distributions

- Functions of random variables

- Sampling Distributions

- Central Limit Theorem

Homework:

Weekly homework assignments will be assigned and collected on Mondays. The assignments will include problems from the textbook and will sometimes require the use of computer software.

Computers:

The Windows software, R, will be introduced and used for some of the homework assignments.
http://www.r-project.org/

References:

- Venerables and Smith: Notes on R: A Programming Environment for Data Analysis and Graphics

Grading:

Homework 40%, Midterm I 20%, Midterm II 20%, Final 20%