# STATISTICS 380-3
# INTRODUCTION TO STOCHASTIC PROCESSES

Spring 2004
DAY COURSE

## Instructor: Dr. J. Graham

## Prerequisites:

STAT 285 or STAT 280 and MATH 251 or consent of the instructor.

## Textbook:

*Introduction to Probability Models* (8th Edition) by: S.M. Ross; publisher: Academic Press

## Course Description:

Review of discrete and continuous probability models and relationships between them.  Exploration of conditioning and conditional expectation. Markov chains. Random walks. Continuous time processes. Poisson process. Markov processes. Gaussian processes.

## Outline:

1. Review: Chapters 1,2,3
2. Discrete Time Markov Chains
3. Poisson Processes
4. Continuous Time Markov Chains
5. Monte Carlo Generation of Random Numbers
6. Some applications

## Computing requirements:
There may be a computational component to this course; details have yet to be determined.

## Grading:

To be announced first day of class.

Revised October 2003