



STAT 380-3

Introduction to Stochastic Processes

Spring 2013
Day Course

Students requiring accommodations as a result of disability must contact the Centre for Students with Disabilities 778-782-3112 or csdo@sfu.ca

Instructor: [Scott Pai](#) (Surrey Campus)

Prerequisite:

STAT 330

Textbook:

Introduction to Probability Models (10th Edition) by: S.M. Ross; publisher: Academic Press

Calendar 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. **Quantitative.**

Outline:

1. Review: Chapters 1,2,3
2. Discrete Time Markov Chains
3. Poisson Processes
4. Continuous Time Markov Chains
5. Some applications

Computing requirements:

Students should feel comfortable in some programming environment, such as R.

Grading Scheme:

Assignments – 15%
2 Midterms – 20% each
Final – 45%

The grading is subject to change.

Students should be aware that they have certain rights to confidentiality concerning the return of course papers and the posting of marks. Please pay careful attention to the options discussed in class at the beginning of the semester. Students are reminded that Academic Honesty is a cornerstone of the acquisition of knowledge. Scholarly integrity is required of all members of the University. Students are encouraged to review policies pertaining to academic integrity available on Student Services webpage at <http://students.sfu.ca/academicintegrity.html>

Students looking for a Tutor should send an email to stat@sfu.ca with “Tutor Request” in the subject line. Please only include information that you would like forwarded to our tutors mailing list.

Revised January 7, 2013