

SPRING 2017 - STAT 380 D100

**INTRODUCTION TO STOCHASTIC PROCESSES (3)***Class Number: 4128 Delivery Method: In Person***COURSE TIMES + LOCATION:**Mo, We, Fr 9:30 AM – 10:20 AM  
AQ 4130, Burnaby**EXAM TIMES + LOCATION:**Apr 19, 2017  
12:00 PM – 3:00 PM  
AQ 3150, Burnaby**INSTRUCTOR:****Boxin Tang**  
boxint@sfu.ca  
1 778 782-4898  
Office: SC-K10560**PREREQUISITES:**

STAT 330, or all of: STAT 285, MATH 208, and MATH 251

## Description

**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.

**COURSE DETAILS:****Course 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

Assignments	25%
Midterm	25%
Final Exam	50%

**NOTES:**

***All grading is subject to change.***

## Materials

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### REQUIRED READING:

#### Required Text:

***Introduction to Probability Models (11th Edition) by: S.M. Ross. Publisher: Academic Pres***

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### DEPARTMENT UNDERGRADUATE NOTES:

#### Students with Disabilities:

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

#### Tutor Requests:

Students looking for a Tutor should visit <http://www.stat.sfu.ca/teaching/need-a-tutor-.html>. We accept no responsibility for the consequences of any actions taken related to tutors.

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### REGISTRAR NOTES:

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Each student is responsible for his or her conduct as it affects the University community. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University. <http://www.sfu.ca/policies/gazette/student/s10-01.html>

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