

FALL 2018 - STAT 330 D100

INTRODUCTION TO MATHEMATICAL STATISTICS (3)

Class Number: 3014 Delivery Method: In Person

COURSE TIMES + LOCATION:

Mo 10:30 AM – 12:20 PM
AQ 3159, BurnabyWe 10:30 AM – 11:20 AM
AQ 3153, Burnaby

EXAM TIMES + LOCATION:

Dec 15, 2018
3:30 PM – 6:30 PM
AQ 3181, Burnaby

INSTRUCTOR:

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Office: SC-K10556

PREREQUISITES:

STAT 285, MATH 251, and one of MATH 232 or MATH 240.

Description

CALENDAR DESCRIPTION:

Review of probability and distributions. Multivariate distributions. Distributions of functions of random variables. Limiting distributions. Inference. Sufficient statistics for the exponential family. Maximum likelihood. Bayes estimation, Fisher information, limiting distributions of MLEs. Likelihood ratio tests. Quantitative.

COURSE DETAILS:

Outline:

1. Review of Probability and Univariate Distributions
2. Multivariate Distributions
3. Distributions of Functions of Random Variables
4. Limiting Distributions
5. Inference. Sufficient Statistics for the Exponential Family.
6. Maximum Likelihood, Limiting Distributions
7. Bayes Estimation
8. Fisher Information
9. Likelihood Ratio Tests

Grading

Assignments (weekly assignments)	20%
Midterms (2 midterms)	30%
Final Exam	50%

NOTES:

Above grading is subject to change.

Materials

REQUIRED READING:

Required Textbook:***Probability and Statistics: The Science of Uncertainty (3rd ed)*** by Michael J. Evans and Jeffrey S. Rosenthal. Publisher: W.H. FreemanBook is available for free online [here](#).

ISBN: 9780321795434

DEPARTMENT UNDERGRADUATE NOTES:**Students with Disabilities:**

Students requiring accommodations as a result of disability must contact the Centre for Accessible Learning 778-782-3112 or 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.

REGISTRAR NOTES:

SFU's Academic Integrity web site <http://students.sfu.ca/academicintegrity.html> is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating. Check out the site for more information and videos that help explain the issues in plain English.

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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