INTRODUCTION TO MATHEMATICAL STATISTICS (3)

Class Number: 4116   Delivery Method: In Person

COURSE TIMES + LOCATION:

Mo 10:30 AM – 12:20 PM
BLU 10021, Burnaby

We 10:30 AM – 11:20 AM
BLU 10011, Burnaby

EXAM TIMES + LOCATION:

Dec 12, 2016
8:30 AM – 11:30 AM
WMC 3260, Burnaby

INSTRUCTOR:

Liangliang Wang
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778-782-3577
Office: SC-K10550

PREREQUISITES:

STAT 285 and MATH 251.

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, limited 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%

All grading is subject to change.

Materials

Required Textbook:

Introduction to Mathematical Statistics (7th ed.) by R. Hogg, J. McKean, A. T. Craig. Publisher: Pearson

Students with Disabilites:
Students requiring accommodations as a result of disability must contact the Centre for Students with Disabilities 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.

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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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