STATISTICS 330-3
INTRODUCTION TO MATHEMATICAL STATISTICS

Fall 2004
DAY COURSE

Students requiring accommodations as a result of disability, must contact the Centre for Students with Disabilities604-291-3112 or csdo@sfu.ca

Instructor: Boxin Tang

Prerequisites:

STAT 285 or STAT 280 and Math 251

Textbook:

Introduction to Mathematical Statistics, 6th Edition, by Hogg/Craig, Prentice Hall Publishers

Course 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.

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

A Grading Scheme will be announced the first day of class.

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. Please consult the General Guidelines of the calendar for more details.

Revised April 2004