

Mathematical Statistics
ORI 390R-2, Unique # 17975
Spring 2006

Instructor: Elmira Popova, ETC 5.120
Time and location: M W 11.00-12.30, ETC 5.132
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Course WEB Cite: Blackboard
Office hours: Monday 4-5pm
Prerequisite: A graduate course in Probability (ORI 390R-1)

Resource Materials

Required text: *Statistical Inference* by George Casella and Roger L. Berger, Second Edition, Duxbury, 2002.

Additional resources: *Introduction to Mathematical Statistics*,
by Robert V. Hogg, Joseph W. McKean and Allen T. Craig
Sixth Edition, Prentice Hall, 2005.

Instructor's notes and handouts.

List of tentative topics

- Multiple random variables, Week 1-2
- Properties of a random sample, Week 3-4
- Principles of data reduction, Week 5
- Point estimation, EXAM I, Week 6-7
- Hypothesis testing, Week 7-9
- Interval estimation, Week 10-11
- Asymptotic evaluations, EXAM II, Week 12-13.
- Regression models, Week 14-15

Grading policy

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| • Homeworks | 20 % |
| • Exam I | 20 % |
| • Exam II | 20 % |
| • Final Exam (May 11, 9-12am) | 40 % |
- All exams are open book, open class notes. The final exam will be comprehensive. You are required to take all tests. Only under exceptional circumstances when legitimate and verifiable reasons are provided will I schedule makeup tests.
 - You will have a homework assigned each week. Problems sets are due at the *beginning* of class on specified days; late problem sets will not be accepted.

General comments

- If you find yourself falling behind, please come and see me. It is very important not to get confused since each lecture builds on the previous one.
- Exams will test both your technical ability to carry out standard procedures and your understanding of important concepts. Do not expect exams to consist of homework assignments.
- Attendance is not compulsory. However, if you are going to miss more than a couple of lectures, let me know. It is *your* responsibility to find out about any handouts distributed during lectures you miss.
- The topics outlined above and the order in which they will be covered might be changed depending on the progress and needs of the class.

Additional Administrative Notes

The University of Texas at Austin provides upon request appropriate academic adjustments for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4241 TDD or the College of Engineering Director of Students with Disabilities at 471-4382.

An engineering student must have the dean's approval to add or drop a course after the fourth class day of the semester or after the second class day of a summer term. Adds and drops are not approved after the fourth class day except for good cause. "Good cause" is interpreted to be documented evidence of an extenuating non academic circumstance (such as health or person problems) that did not exist on or before the fourth class day.

A Course-Instructor Survey from UT's Measurement and Evaluation Center will be administered near the end of the semester.

Students who violate University rules on stochastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from The University. Since dishonesty harms the individual, fellow students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.