

Math 411C Spring 2008
Introduction to Mathematical Statistics

Instructor: Dr. Kathy Temple

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Office Hours: MWThF 2:00 - 2:50 PM and by appointment.

Course Goals: At the end of this course, students should understand some further topics in basic probability theory and beginning topics in mathematical statistics. Specifically, we will cover:

- Further properties of point estimators;
- Methods for finding point estimators;
- Interval estimation (confidence intervals);
- Hypothesis tests, both the general theory and common specific situations.

Prerequisite: Math 411B or permission.

Required Text: Miller and Miller, *John E. Freund's Mathematical Statistics with Applications*, 7th Edition.

Chapters Covered: Sections 10.3 - 10.9 and chapters 11, 12, and 13.

Evaluation:

- Homework (10%)
- Two in-class exams (25% each); tentative testing dates: Wednesday, April 16, and Wednesday, May 7.
- Comprehensive final exam (40%); given Thursday, June 5, 8 - 10 AM.

Course Conduct:

- The textbook is required. You will also want to have at least a scientific calculator. If you already own a TI-83 or 84, they have certain built-in distribution functions that you may find helpful.
- Homework will be assigned often in class and due dates will be announced at the time of the assignment. Homework must be done neatly, *stapled*, and written on clean-edged paper. Your work should be clear, in a logical order, and provide sufficient explanation. What's sufficient explanation? A good guide is to think about whether another student in the class who didn't know how to do this particular problem could understand your solution. This will also help you understand your solution later! Credit will not be given for late homework.
- Any changes to the tentative exam schedule will be announced in advance. Make-up arrangements must be made prior to an exam unless you can document an unexpected circumstance beyond your control that prevented you from taking the exam.