

ST 421, Fall 2001

Introduction to Mathematical Statistics-I

Instructor:

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Office Hours: Wednesday, 2:30-4:30pm.

TA:

Lovely Goyal

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Office hours: Tuesday 1:30-3:30pm.

Course prerequisites:

MA 241 (analytic geometry and calculus sequence). Differentiation and integration of exponential, logarithmic and trigonometric functions. Techniques of integration. Sequences, series, power series and Taylor's Theorem.

Textbook:

Mathematical Statistics with Applications, 6th edition, by D. D. Wackerly, W. Mendenhall and R. L. Schaeffer. Duxbury Press.

(Available in NCSU Central Bookstore*).

Suggested reading:

- *Introduction to mathematical Statistics*, by Hogg & Craig.
- *Introduction to the Theory of Statistics*, by Graybill & Boes.

Schedule:

1:30 - 2:20, MWF, Harrelson 320.

HomeWork:

HW's will usually be assigned on Mondays. You will get a week time to turn in the HW's. As a rule, usually late HW's are not accepted. HW problems will be posted on the web. More details, ask your T.A.

Lecture Notes:

Lecture notes and handouts will be available on the web.

Exams:

Exam #1: September 24, 2001 (50 minutes),

Exam #2: October 29, 2001 (50 minutes).

Exam #3: November 19, 2001 (50 minutes),

Exams #1, #2, and #3 are not cumulative and are based on the materials covered in the class and HW's. However the final exam will be cumulative. One "cheat sheet" (both sides) is allowed in the exams. Sample exams will be posted on the web. Solutions to exams and their respective grades will be posted on the web.

Final Exam:

December 14, 2001, 1:00-3:00pm.

Usually final exams are held in the usual classroom. Final exam will be cumulative. Two "cheat sheets" (both sides) are allowed in the final exam. Sample final exam will be posted on the web. Solution to final exam and grades will NOT be posted on the web.

Grading policy:

The course grade will be based on HW's, exams and a cumulative final exam. The relative weight given to each of these components is

HW's: 15%, Exam #1: 20%, Exam #2: 20%, Exam #3: 20%, Final exam.: 25%.

The final grade will be expressed as a percent between 0 and 100. Letter grade cut-offs will then be assigned. The following letter-grades are guaranteed:

91-100 A, 90 A-, 89 B+, 81-88 B, 80 B-, 79 C+, 71-78 C, 70 C-, 69 D+, 61-68 D, 60 D-, 0-59 F.

You will have some optional extra-credit homeworks and also extra-credit questions in the exams and final, to help you get a better grade.

Missed work policy:

If appropriate documentation is provided, missing HW's will be accepted under the following policies:

Grader will take off 10% of the total if late by at least a day.

Grader will take off 20% of the total if late by at least 5 days.

Grader will not accept if late by more than 10 days.

Make-up exams will **NOT** be given. If appropriate documentation is given for a legitimate absence, your final exam will count that much more. For example, if you miss Exam #1 only, then your final will count 45% of your grade, instead of usual 25%. **At most two exams may be missed** in this fashion. If no in-class exams are taken/turned in, then the final exam will be 65% of your grade and remaining 20% will be lost.

Objectives:

Students will:

1. Understand the basic framework of probability models and populations and their relationship to empirical data.
2. Be able to display empirical data graphically and to summarize the important features.
3. Be able to estimate population parameters, to estimate the variability of the associated estimators, and to express the variability in a confidence statement.

Academic Integrity:

While submitting HW's, exams and Final exam., students should sign the **Honor pledge**: *I have neither given nor received unauthorized aid on this test or assignment.* For details on student conduct, check out the web at <http://www.fis.ncsu.edu/ncsulegal/codeof.htm>

*don't panic if the text is not in the store, will arrive soon!

November 19, 2001.