

ST490: Statistical Reasoning & Applications

Fall Semester 2008

Mon -Wed, 2:30 pm - 3:45 pm (ILB 405, Computer Lab)

Instructor: Dr. Madhuri Mulekar,
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Office Hours: Mon-Wed 4:00-6:00 pm, or by appointment

Instructional Materials: 1. Handouts and research papers provided by instructor.
2. *Minitab*, Statistical Software.

Final Exam: MA490: Thursday, December 4, 3:30 pm - 5:30 pm

Course Description: This is a service course for honors students. It will introduce statistics using simulation technique and graphical methods. Designing simulation and Monte Carlo studies and using computer-based techniques to simulate real-world processes of interest to study statistical information about the problem and make inferences using the simulation outcomes.

- All honors students are allowed to enroll in this course.
- There are no pre-requisites but knowledge of high school level algebra is desirable.
- Familiarity with computers and spreadsheets will be useful.

Objective: The purpose of this course is to provide students with a solid foundation in practical, applied statistics as it is used in a variety of disciplines. Various statistical methodologies will be covered, with emphasis on use of statistical computer software to simulate the underlying situation to make decisions.

Assignments: Regular homework assignments will be given. No make-up assignments are given.

All students will be required to do one project, details of which will be discussed in class.

Final Grade: Final letter grade of A, B, C, D, or F will be assigned based on 90, 80, 70, or 60% of the total points. The points are counted as follows:

Assignments	Exam I (1 hr)	Exam II (1 hr)	Exam III (1 hr)	Final Exam	Total
20%	20%	20%	20%	20%	100%

Example: Suppose a student makes an 80%, 78%, and 75% on Exams 1-3, a 95% on home works/quizzes, and a 76% on the Final exam. Student attended 20 classes. Then the student's numerical grade is $(80 + 78 + 75 + 95 + [76+0.25(20)])/5 = 81.8\%$, and the letter

grade in course is a "B".

- Grade posting:** Grades will not be posted or emailed. Grades will not be given over the phone. The university policy prohibits us from emailing or giving grades over the phone. The departmental secretaries do not have access to student grades. Students can obtain their final grades on-line from the Registrar's office.
- Make-up:** No make-up assignments or exam will be given. However, if the student gives prior notification and has a valid doctor's excuse, he/she will be allowed to use 50% of the final exam grade points for the missed exam grade points. If more than one exam is missed, then the student will be allowed to use final exam points for only one missed exam and will receive zero points on the remaining missed exams.
- Disabilities::** Any student with a qualified disability requiring special accommodations should talk with the instructor immediately so that proper arrangements can be made. Note that, before any arrangements can be made the student must have verification documentation from the *Special Student Services Office (460-7212)*.
- Reading:** Students are expected to read all the sections from this book related to the course coverage.
- Changes:** The requirements and policies may be modified as circumstances dictate. Such changes will be provided to the students in class and in writing.