

## ST210: Statistical Reasoning & Applications

Fall Semester 2009

Section 502: Mon -Wed, 6:00 pm - 7:15 pm (ILB 245)

- Instructor:** Dr. Madhuri Mulekar,  
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- Office Hours:** Mon-Wed 3:30-4:30 pm and 7:15 -8:15 pm, or by appointment
- Instructional Materials:** 1. *Introductory Statistics*, 6th edition by Prem S. Mann (Wiley Publications).  
2. *Minitab*, Statistical Software.
- Final Exam:** Monday, December 7, 6:00-8:00 pm
- Coverage:** All or parts of Chapters 1-10, 12, and 13 of the text book
- Course Description:** An introduction to modern statistics designed to provide the student with a solid foundation in statistical concepts, reasoning and applications. Emphasis given to problem identification, methodology selection and interpretation of results. Analysis of data accomplished by extensive use of statistical computer software, thereby minimizing manual computation. Coverage includes descriptive statistics, probability models, estimation, hypothesis testing, design of experiments and analysis of variance (ANOVA), linear regression and correlation. An honors section is available some semesters for Honors students and students with a mathematics ACT of 27 or greater. Prerequisite: High school level algebra is recommended.  
**NOTE:** ST 210 is intended for students in all disciplines except Engineering, Computer Science and Mathematics.
- 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, however, emphasis will be given to statistical concepts, reasoning and interpretation of results obtained from the analysis of sample data. Applications will be enhanced based on extensive use of statistical computer software.
- Calculator:** A scientific calculator is required and students are expected to bring it to every class and every exam. TI-83, TI-83 Plus, TI-84, or equivalent calculators are recommended. Instructor will use TI-83/84 for instruction.
- Tutoring Lab:** The Department of Mathematics and Statistics offers a free tutoring service in the Tutoring Lab located in ILB 456. The hours will be posted outside the department's office
- Attendance:** A daily attendance record will be kept for each student. One quarter point per day of complete class attendance (excluding exam days) will be added to the final exam grade. No attendance credit will be given for late arrivals, early departures, or missed classes for any reason. Students are strongly advised to avoid class time to make planned visits

to the doctor's office or any other appointments. In case of an emergency, if the student misses a class (or classes), then the student will be responsible for obtaining copies of handouts, class notes, reading appropriate sections of book and keeping up with the class.

- Assignments:**
- Students are encouraged to work all problems of each section covered. These problems should be worked upon completion of the respective section and be completed before the next class period.
  - Short quizzes will be given periodically in the class. Any quiz missed due to being late to class or leaving early will be counted as missed. No make-up quiz will be given.

**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 (1hr)	Exam II (1 hr)	Exam III (1 hr)	Final Exam	<b>Total</b>
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) in SC270.

**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.