

MTH 485 / MED 585

Statistics for Teachers

Winter 2006

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Class Sessions: Eng 220

Thursdays 6:40pm--9:10pm

Office Hours: MWTh 5:00pm--6:30pm
or by appointment

Textbook: Mario F. Triola, Elementary Statistics, 9th ed., 2005.

Course Description: Organization and presentation of data, recognition of misuses of statistics, elementary probability theory, important frequency distributions, measures of central tendency and variance, related topics.

Course Outcomes: Students will obtain:

- ∞ an awareness of the prevalence of statistics in everyday life;
- ∞ a familiarity with the different types of statistics, and how to compile them;
- ∞ the ability to recognize misuses and misrepresentations of statistics;
- ∞ mastery of the fundamentals of probability theory;
- ∞ a knowledge of distributions, means and standard deviations, and related topics in statistics

Technology: Calculators may be used for homework and during tests. We may make use of the EXCEL software package on some homeworks or projects.

Attendance / Make-up / Class Cancellation Policies: Attendance will not be recorded as a formal part of the course. However, poor attendance will be reflected in low test scores and a general feeling of not knowing what's going on.

Make-up tests will not be given without a medical or school-related excuse, presented at least 24 hours in advance of the missed class, or at the instructor's discretion. If a class is cancelled due to inclement weather resulting in school closing, or due to instructor absence, then anything planned for that class, including tests and assignment due dates, will be moved to the next regularly-scheduled class.

Academic Integrity: Students are expected to conform to a high standard of honesty and integrity. Please refer to the University Catalog and the Student Handbook for further explanation.

Grading Scale: The standard 90-80-70-60 grading scale will be used, though the instructor reserves the right to curve test scores up or lower grading standards.

Under 60	60-66	67-69	70-72	73-76	77-79	80-82	83-86	87-89	90-92	93 and Up
F	D	D+	C-	C	C+	B-	B	B+	A-	A

Homeworks: IT IS EXTREMELY IMPORTANT THAT YOU DO THE HOMEWORK SOON AFTER IT'S ASSIGNED, for many reasons. Mathematics, like every other science, builds upon itself constantly – falling behind early will lead to exponentially increasing difficulty in catching up later. *You have now been officially warned.*

Homework will be assigned in nearly every class and reviewed at the beginning of the next class. Most of the homework will not be collected or graded, but in many classes there will be a small selection of "starred" problems, some involving EXCEL, which are to be turned in. These "starred" problems will be graded, and will collectively constitute 35% of the final grade for MTH485 students, and 30% for MED585 students.

Professionalism is expected: these "starred" problems must be turned in neatly, with all work shown and all steps and conclusions justified. Points *will be deducted* for sloppiness and poor grammar. EXCEL spreadsheets, when used on assignments, should be printed out and handed in with the rest of the work.

Late assignments will not be accepted. You are permitted, and quite frankly ENCOURAGED, to study together and work together on assignments. My only stipulation is that each student turns in his own assignment in his own writing/typing, and can explain every word of it when asked.

Projects: There will be four projects throughout the semester. The first will revolve around the misrepresentation of statistics in news media. The second will investigate casino gambling using a concept called "expected value." The third and fourth projects will be student-initiated surveys involving the Normal and Poisson distributions respectively.

MTH485 students must do the first, second, and third projects. They may do all four projects if they wish; the extra project would then count as extra credit. Meanwhile, MED585 students must do the second, third, and fourth projects. If they desire extra credit work, they can do the first project, turning it in at any time on or before the day of the Final.

Tests / The Final: There will be 3 quizzes during the semester. Test dates will be announced in class at least one week ahead of time, and project due dates will be announced in class at least two weeks ahead of time.

	MTH 485	MED 585
Project #1	5% of final grade	[+10% extra]
Project #2	10% of final grade	10% of final grade
Project #3	10% or [+10%]	10% of final grade
Project #4	10% or [+10%]	10% of final grade
Quiz #1	10% of final grade	10% of final grade
Quiz #2	10% of final grade	10% of final grade
Quiz #3	10% of final grade	10% of final grade
Final Exam	10% of final grade	10% of final grade

Because of the timed nature of tests and the final exam, proofs (if any) will only be restricted to homework assignments. The comprehensive Final Exam is scheduled for 7:30pm—10:00pm, Thursday, April 27th, in the usual classroom.