



Essentials of Statistics (MATH 453.001) **Course Syllabus-Fall 2015**

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Office Hours: W : 12:00 – 02:00 pm
TR: 01:00 – 02:30 pm or by appointment.

Class Schedule: TR: 2:30-3:45 pm Location: BIN 302

COURSE INFORMATION

WebAssign: Students need to set up a web-assign account for this class. An e-text book will be available in addition to online homework and other supplementary material.

TEXT: No need to buy, available through webassign.

TECHNOLOGY REQUIREMENTS: TI 83/TI 84 or equivalent is highly recommended.

COURSE DESCRIPTION AND OBJECTIVES: Techniques of statistical applications concerning descriptive statistics, tests of hypothesis, regression and analysis of variance.
Prerequisite: One course in college mathematics.

STUDENT OUTCOMES: Upon successful completion of this course a student will:

- 1) Recognize and differentiate between key terms in probability and statistics.
- 2) Display data graphically and interpret graphs.
- 3) Compute and interpret empirical and theoretical probabilities.
- 4) Recognize, understand and analyze various probability distribution functions.
- 5) Calculate and interpret confidence intervals.

- 6) Perform hypothesis testing using statistical methods.
- 7) Discuss basic ideas of linear regression and correlation.

TESTS: We will have three tests plus a comprehensive final exam. A TENTATIVE test schedule is below, but that is subject to change. In general, **NO makeup tests will be given**, although you may replace your lowest exam grade with the final exam grade.

Test 1- Thursday, October 1st.
Test 2- Thursday, November 5th.
Test 3- Thursday, December 3rd.

FINAL EXAM: Tuesday, December 15th, 1:15 – 3:15 pm

HOMEWORK: You are expected to complete all online homework assignments within the due date.

GRADES:

Tests: 45%
Homework/Quizzes: 30%
Final: 25%

Grade: A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = 59 or below

ATTENDANCE and CONTINUAL ENROLLMENT POLICY: Class attendance is expected and a MUST to pass this course, and it is your responsibility to attend punctually and regularly. Roll will be taken every class period and excessive absences will result in being dropped from this course.

GETTING HELP:

If you need additional help outside my office hours, the Math Skills Center in Binnion 328 offers free tutoring Monday and Wednesday from 8am – 8pm, Tuesday and Thursday from 8am – 6pm, and Friday from 8am – 12pm.

ADA statement

“The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: **Office of Student Disability Resources and Services, Room 132, Gee Library, or call 886-5835.**”

STUDENT CONDUCT:

Appropriate classroom behavior is required to attend this class. All cell phones must be put on silent during class. Phones are a distraction for me and the other students in the class. All people will be treated with respect and I will not allow talking that will disrupt my lectures. If disruptions occur during class lectures, you will be asked to leave class and will earn a zero on any applicable grades for that class period. Serial disrupters will be asked to withdraw from my class.

ACADEMIC INTEGRITY:

As stated in the Student Handbook, academic dishonesty in the class will not be tolerated. Included with other forms of academic dishonesty, if any materials or equipment are found to be available to the student at any time which is considered inappropriate by the instructor, the very fact that the materials are inappropriately available to the student is grounds for an accusation of academic dishonesty. The instructor reserves the right to fail the student for the assignment or the course, as well as report the student to the Academic Dean and the Dean of Students.

Tentative Weekly Schedule Fall 2015

Week	Topics
1	Introduction to key terms and Webassign/ Sampling and data
2	Descriptive statistics and graphs
3	Descriptive statistics-Numerical summaries
4	Probability topics
5	Discrete random variables
	Exam 1
6	Discrete random variables
7	Continuous random variables
8	Normal distribution
9	Normal distribution
10	Sampling distribution
	Exam 2
11	Sampling distributions
12	Confidence intervals
13	Hypothesis tests
14	Hypothesis tests
	Exam 3
15	Pearson's chi square test
16	Final Exam