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Course Materials
- Introductory Statistics, Seventh Edition, Prem S. Mann (required)
- A four-function calculator (required)

Introduction
Statistics is the branch of mathematics devoted to the study of collecting, organizing and interpreting data. Increasingly it is recognized that any educated person, regardless of the field of study, shall be acquainted with statistical reasoning. It is a goal of this class to make you more familiar with how statistical reasoning plays a roll in our lives. We will be studying both descriptive and inferential statistics throughout the course. We will find out how to organize data in a meaningful way, and how to make decisions based on data.

Exams
There will be two in-class exams as well as a final cumulative exam. The exams will test your understanding of statistical concepts, your ability to work through some of the computations, as well as your ability to apply the techniques to certain applications. The first exam is scheduled for Friday, September 28, the second exam is scheduled for Friday, November 2. The final exam will be held on Saturday, December 15 from 11:30 a.m. to 2:30 p.m. for section A, and on Monday, December 17 from 1:00 - 4:00 for section B. All exams will count for 25 percent of your final grade. There will be NO make-ups for missed exams. Please look over your schedule as soon as possible. If you see a potential conflict, inform me immediately.

Homework
The best way to learn Mathematics is to solve problems. I will be offering suggested problems to look at for the next class, but these problems will not be turned in for a grade. The homework problems will range in difficulty and include both computational problems as well as conceptual problems. The purpose of this is to help you identify where you might have difficulties. If you encounter any trouble with an assignment or a concept, seek help!

Quizzes
Every other Friday, starting with September 7th, we will have an in-class quiz. There will be a total of 6 quizzes throughout the semester. You should treat the quizzes as mini-exams, covering material from approximately 6 days worth of course work. The quizzes will consists of 4 or 5 problems similar to problems from your graded homework, and they are to make sure that you are keeping up with the concepts presented in class, and to identify where you are having problems before you take the exams. The quizzes will count for 25% of your final grade.

Attendance
Attendance in MAT 112 is extremely important. There is no official attendance policy for my courses. Although I highly recommend that you make an effort to be in class each day, on time, and willing to learn. If you are late to class, you may stay to enjoy the wonderful learning experience. But please be respectful of the rest of the class and join us quietly.
Grading
Your grade in this course will be based on three main factors: homework, quizzes and exams. The quizzes will be worth 25% of your final grade, and the exams 75%. In addition to these factors, minor ethereal factors such attendance, class participation, attitude, and improvement over the course of the semester can also affect your grade. To determine your final grade, 90–100% = A, 80–89% = B, 70–79% = C, 60–69% = D, 59 and below = F, with the top two percents receiving a + and the bottom two percents receiving a −.

Calculators
Because we will be dealing with a reasonable amount of data in this course, the use of calculators will be allowed on homework, quizzes, and exams. However, the only type of calculator that you can use during the exams are the basic four-function calculators. That is, programmable calculators or cell phone calculators will not be allowed.

Important Dates
Friday, September 7 – Quiz I
Friday, September 21 – Quiz II
Friday, September 28 – Exam I
Monday, October 8 – Fall Break
Friday, October 14 – Quiz III
Friday, October 26 – Quiz IV
Friday, November 2 – Exam II
Friday, November 16 – Quiz V
Wednesday, November 21 - Sunday, November 25 – Thanksgiving Break
Friday, December 7 – Quiz VI
Monday, December 10 – Last Day of Classes
Saturday, December 15, 11:30 - 2:30 – Final Exam, Section A
Monday, December 17, 1:00 - 4:00 – Final Exam, Section B

Suggestions
Come to class with your homework assignment completed every day
Study for at least 30 minutes each day in addition to completing your homework assignment
Read the section we will be covering in class before arriving to class
Do not fall behind!
Come to office hours to discuss concepts. I am here to help!
Syllabus
MAT 112 : Basic Statistics
Fall 2012

Week 1 August 29 Course Policies, Syllabus, Basic Terms
August 31 Section 1.8 – Summation Notation

Week 2 September 3 Section 2.2 – Qualitative Data
September 5 Section 2.3, 2.4 – Quantitative Data
September 7 Section 3.1 – Measures of Central Tendency, Quiz I

Week 3 September 10 Section 3.2 – Measures of Dispersion
September 12 Section 3.3 – Mean, Variance for Grouped Data
September 14 Section 3.4 – Standard Deviation

Week 4 September 17 Section 4.1 – Experiments, Outcomes, and Sample Space
September 19 Section 4.2 – Calculating Probability
September 21 Section 4.3, 4.4 – Marginal and Conditional Probability, Quiz II

Week 5 September 24 Sections 4.5 - 4.7 – Types of Events
September 26 Review
September 28 Exam I

Week 6 October 1 Sections 4.8, 4.9 – Intersections and Unions
October 3 Sections 5.2 – Probability Distribution of a DRV
October 5 Sections 5.3, 5.4 – Mean and Standard Deviation of a DRV

Week 7 October 8 NO CLASS
October 10 Section 5.5 – Factorials and Combinations
October 12 Section 5.6 – Binomial Distribution, Quiz III

Week 8 October 15 Section 5.7 – Hypergeometric Distribution
October 17 Section 5.7 – Hypergeometric Distribution
October 19 Sections 6.1 - 6.3 – The Normal Distribution

Week 9 October 22 Section 6.4 – Standardizing a Normal Distribution
October 24 Section 6.4 – Standardizing a Normal Distribution
October 26 Section 6.6 – Determining z and x Values, Quiz IV

Week 10 October 29 Sections 7.1, 7.2 – Population and Sampling Distributions
October 31 Review
November 2 Exam II

Week 11 November 5 Sections 7.3, 7.4 – The Sampling Distribution of \( \bar{x} \)
November 7 Section 7.5 – Applications of the Sampling Distribution of \( \bar{x} \)
November 9 Sections 7.6, 7.7 – The Sampling Distribution of \( \hat{p} \)

Week 12 November 12 Section 7.8 – Applications of the Sampling Distribution of \( \hat{p} \)
November 14 Section 8.3 – Est. of \( \mu : \sigma \) known
November 16 Section 8.3 – Est. of \( \mu : \sigma \) known, Quiz V

Week 13 November 19 Section 8.5 – Est. of \( p : \) Large Samples
November 21 NO CLASS
November 23 NO CLASS

Week 14 November 26 Sections 8.6 - 8.7 – Determining Sample Size for Estimation of Proportion
November 28 Section 9.1 – Hypothesis Testing : Introduction
November 30 Section 9.2 – Hyp. Tests about \( \mu : \sigma \) known

Week 15 December 3 Section 9.3 – Hyp. Tests about \( \mu : \sigma \) unknown
December 5 Section 9.4 – Hyp. Tests About \( p : \) Large Samples
December 7 Review, Quiz VI

Week 16 December 10 Review