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

Introduction  
Statistics is the branch of mathematics devoted to the study of collecting, organizing and interpreting data. 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 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, February 16, the second exam is scheduled for Friday, March 30, and the final exam will be held on Tuesday May 8 from 9:00 to 11:30 for section A, and on Saturday, May 5 from 1:00 to 3:30 for section B. All exams will count for 20 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. Homework will be assigned at the end of each class period and collected the following class period. I will choose 4 or 5 problems to grade in each assignment. To earn full credit for a problem, a complete solution to the problem must be submitted. Just writing down the answer will not earn full credit. In addition to points for each graded problem, 5 points on each assignment will count for completeness and neatness of the graded assignment. Late assignments will not be graded, but they will be eligible for the 5 completion points. If you are not in class the day an assignment is collected, you may turn in your assignment into my office later that day. However, your assignment will be considered late. The homework is designed to help you identify where you might have difficulties. If you encounter any trouble with an assignment or a concept, seek help! The homework will count for 20% of your final grade.

Quizzes  
Every other Friday, starting with January 26th, 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 20% of your final grade.

Attendance  
Attendance in MAT 112 is extremely important. Although there is no official attendance policy, note that if you are not in class on a particular day, your homework will not be graded for a score. I will also require that you be in class at 8:30 am (or 9:30 for section B) and no later. If you are late to class, you may stay to enjoy the wonderful learning experience. However, your homework assignment for the day will be considered late.

Grading  
Your grade in this course will be based on three main factors: homework, quizzes and exams. The homework will be worth 20% of your final grade, the quizzes 20%, and the exams 60%. 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, January 26 – Quiz I
Friday, February 9 – Quiz II
Friday, February 16 – Exam I
Friday, March 2 – Quiz III
Monday, March 12 - Friday, March 16 – Spring Break
Friday, March 23 – Quiz IV
Friday, March 30 – Exam II
Friday, April 13 – Quiz V
Friday, April 27 – Quiz VI
Saturday, May 5, 1:00 - 3:30 – Final Exam, Section B
Tuesday, May 8, 9:00 - 11:30 – Final Exam, Section A

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 homework and concepts. I am here to help!
Syllabus
MAT 112 : Basic Statistics
Spring 2007

Week 1  January 17  Course Policies, Syllabus, Basic Terms
         January 19  Section 1.8 – Summation Notation
Week 2  January 22  Section 2.2 – Qualitative Data
         January 24  Section 2.3, 2.4 – Quantitative Data
         January 26  Section 3.1 – Measures of Central Tendency, Quiz I
Week 3  January 29  Section 3.2 – Measures of Dispersion
         January 31  Section 3.3 – Mean, Variance for Grouped Data
         February 2  Section 3.4 – Standard Deviation
Week 4  February 5  Section 4.1 – Experiments, Outcomes, and Sample Space
         February 7  Section 4.2 – Calculating Probability
         February 9  Section 4.3, 4.4 – Marginal and Conditional Probability, Quiz II
Week 5  February 12  Sections 4.5 - 4.7 – Types of Events
         February 14  Review
         February 16  Exam I
Week 6  February 19  Sections 4.8, 4.9 – Intersections and Unions
         February 21  Sections 5.2 – Probability Distribution of a DRV
         February 23  Sections 5.3, 5.4 – Mean and Standard Deviation of a DRV
Week 7  February 26  Section 5.5 – Factorials and Combinations
         February 28  Section 5.6 – Binomial Distribution
         March 2    Section 5.7 – Hypergeometric Distribution, Quiz III
Week 8  March 5    Section 5.7 – Hypergeometric Distribution
         March 7    Sections 6.1 - 6.3 – The Normal Distribution
         March 9    Section 6.4 – Standardizing a Normal Distribution
Week 9  March 12   NO CLASS
         March 14   NO CLASS
         March 16   NO CLASS
Week 10 March 19   Section 6.4 – Standardizing a Normal Distribution
         March 21   Section 6.6 – Determining z and x Values
         March 23   Section 6.7 – Normal Approximation to Binomial Distribution, Quiz IV
Week 11 March 26   Sections 7.1, 7.2 – Population and Sampling Distributions
         March 28   Review
         March 30   Exam II
Week 12 April 2    Sections 7.3, 7.4 – The Sampling Distribution of \( \bar{x} \).
         April 4    Section 7.5 – Applications of the Sampling Distribution of \( \bar{x} \).
         April 6    Sections 7.6, 7.7 – The Sampling Distribution of \( \hat{p} \).
Week 13 April 9    Section 7.8 – Applications of the Sampling Distribution of \( \hat{p} \).
         April 11   Section 8.3 – Est. of \( \mu : \sigma \) known
         April 13   Section 8.3 – Est. of \( \mu : \sigma \) known, Quiz V
Week 14 April 16   Section 8.5 – Est. of \( \mu : \sigma \) known
         April 18   Sections 8.6 - 8.7 – Determining Sample Size for Estimation of Proportion
         April 20   Section 9.1 – Hypothesis Testing : Introduction
Week 15 April 23   Section 9.2 – Hyp. Tests about \( \mu : \sigma \) known
         April 25   Section 9.4 – Hyp. Tests About \( p : \) Large Samples
         April 27   Review, Quiz VI
Week 16 April 30   Review