COURSE SYLLABUS

SOCI 3311—001/002 -- SOCIAL STATISTICS
FALL, 2005

Instructor: Dr. Becky Guy
Office: 207 CL
Phone: 678-3344 or 678-2611 (main office)
Office Hours: 7:00am – 8:00am or by appointment
email: rguy@memphis.edu

Course Goals

There are three primary goals for this course:

- **To become familiar with a variety of statistical procedures** -- including (1) measures of central tendency, (2) measures of variability, (3) measures of position, (4) student's t, (5) analysis of variance, (6), correlation and (7) regression analysis.

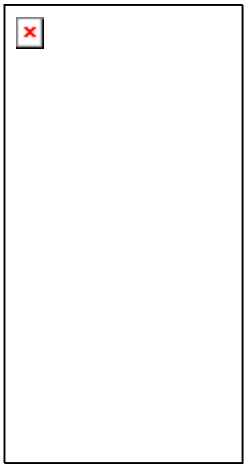
- **To improve your quantitative skills.** This is a computationally intensive course. Working with numbers, formulas, and calculators should serve to enhance your efficiency in this area.

- **To sharpen critical thinking skills.** This course will also focus on choosing the correct statistical procedure and interpreting statistical findings. You should be able to apply the critical thinking skills that you develop in this course to other courses as well.

Textbook

There is no required text for this course. All course content can be found at: www.nfomedia.com. See handout for instructions.

Calculator



The Texas Instruments (TI) 83 Plus or TI 84 Plus is required for this course. Both of these calculators can compute basic descriptive statistics as well as a number of hypothesis testing procedures including (z single sample, t single sample, t independent, t dependent, analysis of variance, correlation, and regression).

Course Work

This course revolves around a series of UNITS covering basic statistical procedures as well as the application of these procedures to real life situations.

We will cover a total of 11 units -- each of which is followed by an in-class exercise to enhance your level of understanding.

You are encouraged to carefully read and study the online lessons as well as complete the online practice quizzes as both provide preparation for the four major exams.

Quizzes

There will be a minimum of 6 quizzes during the semester. Each quiz is worth 25 points. Only the four highest quiz scores will be counted. Hence, quiz scores that are counted will total to 100 points -- the equivalent of a major exam. Quizzes will cover both theoretical and computational content using a **true/false-multiple choice format**. **QUIZZES CANNOT BE MADE UP. YOU MUST BE IN CLASS ON THE DAY A QUIZ IS GIVEN IN ORDER TO TAKE IT.**

Exams

There will be four examinations in this class – none of which is comprehensive. Exams will cover theoretical and computational content. Major exams are comprised of objective questions (true-false and/or multiple choice). You will be allowed the entire class period to complete an exam.

For each examination, you will also be allowed to use one page (8.5 X 11) of notes. No books or other materials will be allowed.

Late exams will be given on STUDY DAY. If possible, requests for taking an exam late should be made in advance of the scheduled exam date.

Final Grades

Your final grade in the course is based upon the total number of points earned on your four major exams and your four highest quiz scores.

Final Grades will be assigned using the following scale:

Grading Scale:	97% -	100% of total points	**A+**
	94% -	96% of total points	**A**
	90% -	93% of total points	**A-**
	87% -	89% of total points	**B+**
	84% -	86% of total points	**B**
	80% -	83% of total points	**B-**
	77% -	79% of total points	**C+**
	70% -	76% of total points	**C**
	67% -	69% of total points	**D+**
	60% -	66% of total points	**D**
	Below	60% of total points	**F**

Course Calendar:

Unit 1 – A First Look at Statistics

1. Definition of terms commonly used in statistics
2. Descriptive and inferential statistics defined
3. Continuous and Discrete Data
4. Independent versus Dependent Variables
5. Levels of Measurement

Unit 2 – Data Distributions

1. Qualitative Frequency Distributions
2. Quantitative Frequency Distributions
3. Graphing Data

Unit 3 – Measures of Central Tendency

1. Mode
2. Median
3. Mean
4. Relationship between Measurement and Central Tendency

EXAM 1

Unit 4 – Measures of Variability

1. Range
2. Average Deviation
3. Variance
4. Standard Deviation

Unit 5 – Measures of Position

1. Percentile Rank
2. z Score

EXAM 2

Unit 6 – Probability

1. Simple Probability
2. Probability and the Standard Normal Distribution

Unit 8 – The Logic of Inferential Statistics

1. Hypothesis Defined
2. Null versus Research Hypothesis
3. z Test for Single Sample
4. Type I and II Errors

Unit 9 – The t Tests and t Distributions

1. t Test for Single Sample
2. t test for Two Independent Samples

EXAM 3

Unit 10 – One-Way Analysis of Variance

Unit 11 – Correlation

Unit 12 – Regression

EXAM 4