COURSE SYLLABUS

SOCI 3311—501 -- SOCIAL STATISTICS
FALL, 2005

Instructor: Dr. Becky Guy
Office: 207 CL
Phone: 678-3344 or 678-2611 (main office)
Office Hours: 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

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 8 units -- each of which is followed by in-class exercises to enhance your level of understanding.

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

There will be two examinations in this class – neither of which is comprehensive. Exams will cover theoretical and computational content. Exams are comprised of 50 objective questions (true-false and/or multiple choice). You will be allowed the entire class period to complete each exam.

For each examination, you will also be allowed to use all your notes and any materials printed from the web site.

Late exams will be given as needed. If at all 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 the two major exams. The total possible number of points that can be earned in this course is 200.

Final Grades will be assigned using the following scale:

<table>
<thead>
<tr>
<th>Grading Scale:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>97% - 100% of total points</td>
<td>A+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>94% - 96% of total points</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90% - 93% of total points</td>
<td>A-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>87% - 89% of total points</td>
<td>B+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>84% - 86% of total points</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80% - 83% of total points</td>
<td>B-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>77% - 79% of total points</td>
<td>C+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70% - 76% of total points</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67% - 69% of total points</td>
<td>D+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60% - 66% of total points</td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 60% of total points</td>
<td>F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 3 – Measures of Central Tendency
1. Mode
2. Median
3. Mean
4. Relationship between Measurement and Central Tendency

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

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

EXAM 1

Unit 9 – The t Tests and t Distributions
1. t Test for Single Sample
2. t test for Two Independent Samples

Unit 11 – Correlation

Unit 12 – Regression

EXAM 2