PSY 315 40
BEHAVIORAL SCIENCE STATISTICS
Fall Evening 2000 Session

Instructor:	Marie J Burghardt, MSCP	Time:	Thursdays 5:30 – 9:30
		Place:	Ft. Shafter
Phone:	621-1159	e-mail	mjbnoto@hotmail.com

Course Overview: The focus of this course is on understanding basic statistical topics in social science research. Topics which will be covered include: frequency distributions, graphical representations, measures of central tendency, variability, normal curve, derived scores, correlation, regression, statistical inference, and various hypothesis tests including t-tests, ANOVA, and chi-square tests.

Course Objectives:

1. Student will be able to demonstrate an understudying of descriptive statistics and inferential statistics and how they are related to the scientific method.
2. Student will be able to demonstrate an understudying of statistical tables.
3. Student will be able to demonstrate an understudying of central tendency.
4. Student will be able to demonstrate an understudying of how to utilize statistical formula.
5. Student will be able to demonstrate an understudying of standard scores.
6. Student will be able to demonstrate an understudying of correlation.
7. Student will be able to demonstrate an understudying of *t*-test.
8. Student will be able to demonstrate an understudying of regression.
9. Student will be able to demonstrate an understudying of ANOVA.
10. Student will be able to demonstrate an understudying of hypothesis testing in a research context and how they are related to the scientific method.

Textbooks: **The *required* text is:**

Frederick J Gravetter, Larry B. Wallnau (l998). *Essentials of Statistics for the Behavioral Sciences 3rd Ed.* CA: Brooks/Cole.

Exams: There will be one midterm exam and one final exam. Each exam will consist of problem solving. The exams will be similar in format to the exercise sets found at the end of each chapter in your textbook. The exams will basically cover each of the learning objectives as stated in the syllabus. EXAMS ARE OPEN BOOK. You will be able to use your calculator, class notes, and your textbook.

***Calculator:* To do most of the exercise sets and exams you will need a calculator (a small hand calculator, we're not talking mainframe here.) Keep in mind that this course does not require sophisticated mathematics! Just make sure that your calculator has a memory for storing numbers, a "square" key (to square number) and a square root key.**

Course Requirements:

Grading: **Your grade will be determined by your performance on your exams and your attendance in class using the following criteria. Beginning the first class period, you will receive 100 points. For each class missed you will loss 10 points. Class missed means: being later than 30 minutes late to class and/or leaving more that 30 early from class.**

The total possible points for each exam is:

Exam 1	**100 points**
Attendance	**100 points**
Final	**100 points**

Thus, the total number of points possible is 300. Grades will be assigned as follows:

Point Range	Grade
270 – 300	**A**
239 – 269	**B**
208 – 238	**C**
177 – 237	**D**
Below 177	**F**

Study Groups **I encourage you, if it is at all possible, to form your own study group. Sharing questions and hearing others describe concepts will often times facilitate studying. (Besides there is the old adage about "misery loves company".)**

Make-up exams: **If you, for some significant reason, are unable to take either of the exams, contact me as soon as you know you will not be able to take the exam so arrangements can be organized.**

TENATIVE SYLLABUS

Week	**Topic**	**Reading Assignment**
1	Introduction, Preliminary concepts, Frequency distribution Measures of central tendency Quiz 1	Chapters 1 & 2 & 3
2	Measures of Variability Graphical representations z-Scores: Location of scores & standard distributions Quiz 2	Chapters 4 & 5
3	Probability Probability & Samples: Distribution of sample means Quiz 3	Chapters 6 & 7
4	Introduction to hypothesis testing Introduction to the *t* statistic Quiz 4	Chapters 8 & 9
5	MIDTERM	
6	Hypothesis testing with two independent samples Hypothesis testing with two related samples Quiz 6	Chapters, 10 & 11
7	Estimation Introduction to ANOVA Quiz 7	Chapters 13
8	Correlation & Regression Quiz 8	Chapter 15
9	Chi-Square Statistic: Tests for Goodness of Fit & Independence Quiz 9	Chapter 16
10	FINAL	