PSY 315
BEHAVIORAL SCIENCE STATISTICS
SPRING EVENING 2001 SESSION

Instructor:	Marie J Burghardt, MSCP	Time:	Tuesdays 4:45 – 8:45
		Place:	Pearl Harbor
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Course Overview: The focus of this course is on understanding basic statistical topics in social science research methodology. 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 and chi-square tests.

Course Objectives:

1. Student will be able to demonstrate an understudying of descriptive statistics and inferential statistics and their role in 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.

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

Frederick J Gravetter, Larry B. Wallnau (2002).
***Essentials of Statistics for the Behavioral Sciences 4th 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. You will not do well on exams unless you complete homework assignments and actively participate in class exercises.

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	**200 points**
Attendance	**100 points**
Final	**200 points**

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

Point Range	Grade
450 – 500	A
399 – 449	B
348 – 398	C
297 – 347	D
Below 297	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 <u>significant</u> reason are unable to take either of the exams, you are to contact me as early as possible to arrange to take the exam.

TENATIVE SYLLABUS

Week	Date	Topic	Reading Assignment
1	April 2	Introduction, Preliminary concepts, Frequency distribution Central Tendency Quiz 1	Chapters 1, 2, & 3
2	April 9	Variability Quiz 2	Chapters 4 & 5
3	April 16	z-Scores: Location of scores & standard distributions Probability Quiz 3	Chapters 6 & 7
4	April 23	Probability & Samples: Distribution of sample means Introduction to hypothesis testing Introduction to the *t* statistic Quiz 4	Chapters 8 & 9
April 30 NO CLASS			
5	May 7	MIDTERM Quiz 5	
6	May 14	The t test for two independent samples The t test for related samples Estimation Quiz 6	Chapters 10, 11, & 12
7	May 21	Introduction to ANOVA Two-factor analysis of variance (independent measures) Quiz 7	Chapters 13 & 14
8	May 28	Correlation & regression Quiz 8	Chapter 15
9	June 4	Chi-square Quiz 9	Chapter 16
10	June 11	FINAL	