

Prs

PSY 315 80
BEHAVIORAL SCIENCE STATISTICS
Winter Evening 1999 Session

Instructor:	Marie J Burghardt, MSCP	Time:	Thursdays 5:30 – 9:30
		Place:	Camp Smith
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Course Overview: The focus of this course is on understanding basic statistical topics in educational 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 and chi-square tests.

Course Objectives:

1. To learn statistical vocabulary and techniques that enable you to become statistically literate so that you can evaluate the appropriateness of statistical methodology and results reported in research.
2. To understand the basic statistical concepts which will enable you to study advanced statistical topics.
3. To learn how to interpret and report social science research.
4. To foster an appreciation and understanding of general procedures for testing research hypotheses.

Textbooks: The *required* text is:

Frederick J Gravetter, Larry B. Wallnau (1999). *Essentials of Statistics for the Behavioral Sciences 3rd Ed.* CA: Brooks/Cole.

Exams: There will be two midterm exams and one final exam. Each exam will have two parts: a multiple-choice part and a problem solving part. The exams will be similar in format to the exercise sets in your books and chapter quizzes. The exams will basically cover each of the learning objectives as stated in your textbook chapters. **EXAMS ARE OPEN BOOK.** You will be able to use your calculator, class notes, and your textbook. All exams will be graded and returned in class following the exam day. You will have as long as you want to complete each exam.

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:

IN ORDER TO RECEIVE CREDIT FOR QUIZZES, YOU MUST BE IN CLASS THE DAY THE QUIZ IS DUE. Five (5) points will be added to you grade for each class session attended. In order to receive points for class attendance, you must be present at the beginning of class. Class starts at 5:30.

Grading: Your grade will be determined by your performance on your exams and your quizzes using the following criteria. There will be 9 quizzes, each worth 20 points, for a possible total of 180 points.

The total possible points for each exam is:

Midterm Exam	1	100 points
Quizzes	9	180 points
Final	1	120 points

Thus, the total number of points possible is 400. Grades will be assigned as follows:

Point Range	Grade
360-400	A
320-359	B
280-319	C
240-279	D
Below 240	F

Lectures: At each lecture students usually will receive QUIZES covering the lecture material. Occasionally I will handout discussion exercises, self-tests and concept maps to enhance understanding.

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".)

TENTATIVE COURSE SCHEDULE

Week of	Topic	Reading Assignment
1-14	Introduction, Preliminary concepts, Frequency distribution Quiz 1	Chapters 1 & 2
1-21	Measures of central tendency Measures of Variability Graphical representations Quiz 2	Chapters 3 & 4
1-28	z-Scores: Location of scores & standard distributions Probability Quiz 3	Chapters 5 & 6
2-4	Probability & Samples: Distribution of sample means Intro. to hypothesis testing Quiz 4	Chapters 7 & 8
2-11	MIDTERM Intro to the <i>t</i> statistic Quiz 5	Chapter 9
2-18	Hypothesis testing with two related samples Estimation Quiz 6	Chapters 11 & 12
2-25	Intro. to ANOVA Two-factor analysis of variance (independent measures) Quiz 7	Chapters 13 & 14
3-4	Correlation & regression Quiz 8	Chapter 15
3-11	Chi-square Quiz 9	Chapter 16
3-18	FINAL	