Course: **QUANTITATIVE METHODS IN BEHAVIORAL SCIENCES**
Spring 2008

Prerequisite: AJUS/PSYC/SOCI 110

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Textbooks: (Required) Gravetter, F. J. & Wallnau, L. B. (1996).
Statistics for the Behavioral Sciences,
(4th edition). West Publishing Company: St. Paul, MN.

Course Objectives:

This course will introduce the student to basic statistics as applied to behavioral sciences. Gravetter & Wallnau's text will be used as the basic text for the course. The student should be prepared to discuss the text assignments in class. The lab portion of the course will involve assignments to complete and using a statistical package (SPSS) on the computer. The student will be required to use the Internet to access and download assignments from the instructor's Web page. Current information regarding the course, assignments, solutions, attendance and grades will be accessible on the instructor's Web page with a password that will be given to the students after enrollment in the class. At the completion of the course, the student should possess an elementary knowledge of statistics in the following areas:

1. The student should have a basic working knowledge of the role of statistics in the behavioral sciences.
2. The student should demonstrate understanding of elementary statistical theory and application of concepts of frequency distributions, measures of central tendency, variability and standardization of distributions.
3. The student should demonstrate a rudimentary understanding of probability theory.
4. The student should understand how statistics are used to estimate distributions in hypotheses testing.
5. The students should understand the concept of hypothesis testing as related to statistical analysis.
6. The students should demonstrate an overall understanding of the role of statistical analyses in the behavioral sciences.
7. The students should demonstrate the ability to effectively use a computer based statistical program, such as SPSS.
8. The students will also demonstrate the ability to effectively use basic computer technology to access their assignments, solutions, attendance records and grades for the course.

Exams:

Your grade will be determined by your participation in class, laboratory assignments and the section exams. Students must complete and turn in all assignments and make-up work by the last scheduled class, without exception.

Grading:

Lab assignments		20%
Section exams	4 @ 20%ea	80%
		100%

Computer Skills:

All students graduating from UVa-Wise must be able to demonstrate computer proficiency. Please refer to p.79-80 of the 2004-2005 College Catalog. If you do not believe that you can meet this requirement, additional instruction will be provided. See your advisor.

Honor Code:

The Honor Code of The University of Virginia's College at Wise is fully supported and each student in this class will be treated as a responsible and honest adult. Violations of the Honor Code will be prosecuted through the Honor Court.

Special accommodations:

If you have any type of learning disability or problem that might require special accommodations, please inform me at the beginning of the term to enable appropriate arrangements to be made.

Class Attendance:

Each student is expected to attend class regularly. Attendance will be taken regularly. It is very important for you to attend every class. If extreme circumstances cause you to miss more than one class, you should contact me immediately.

Tentative Schedule:

Date	Reading Schedule	Assignment
1/15	Syllabus & Introduction	
1/17	Chapter 1 - Introduction to Statistics	
1/22	Chapter 2 - Frequency distributions	1
1/24	Chapter 2 - Frequency distributions	2
1/29	Chapter 3 - Central Tendency	3
1/31	Chapter 3 - Central Tendency	3
2/5	Chapter 4 – Variability	
2/7	Chapter 4 – Variability	
2/12	**Exam 1**	
2/14	Chapter 5 - z-Scores: Location of Scores and Standardized Distributions	5
2/19	Chapter 5 - z-Scores: Location of Scores and Standardized Distributions	5
2/21	Chapter 6 – Probability	6
2/26	Chapter 6 – Probability	6
2/28	Chapter 7 - Probability and Samples: The Distribution of Sample Means	
3/4	**Exam 2**	
3/6	Chapter 8 - Introduction to Hypothesis Testing	
3//11 – 3/13	**SEMESTER BREAK**	
3/18	Chapter 9 - Introduction to the t-Statistic	7
3/20	Chapter 10 - Hypothesis Tests with Two Independent Samples	8
3/25	Chapter 11 - Hypothesis Tests with Related Samples	
3/27	Chapter 11 - Hypothesis Tests with Related Samples	
4/1	**Exam 3**	
4/3	Chapter 13 - Introduction to Analysis of Variance	9
4/8	Chapter 13 - Introduction to Analysis of Variance	9
4/10	Chapter 14 - Repeated-Measures Analysis of Variance (ANOVA)	
4/15	Chapter 16 - Correlation and Regression	10
4/17	Chapter 16 - Correlation and Regression	10
4/22	Chapter 17 - The Chi-Square Statistic	11
4/24	**Exam 4**	
4/29	Chapter 18 - The Binomial Test	
5/1	Chapter 19 - Statistical Techniques for Ordinal Data and Wilcoxon Tests and Spearman Correlation	
5/6	**READING DAY**	