Spring 2011 Statistics
Course Syllabus PSY225-003
T, TH 12:30-3:15pm in SB 104

Instructor: Bryan Myers, Ph.D.
Office: 110G SB
Phone: 962-3636
Email: myersb@uncw.edu
Website: http://people.uncw.edu/myersb/
Office hours: M, W 10-11am or by appt.
Textbook: Gravetter, F.J., & Wallnau, L.B. (2010). Statistics for the Behavioral Sciences (8th ed.). Wadsworth Publishing.
Teaching Assistant: Tiffany Shader, **Office**: 105 SB. **Office hours** Tuesday 11am-12:30pm and Thurs 3:30-5pm. **email:** tms7086@uncw.edu

Course Overview: Psychologists must stay current on the most recent research findings in order to be effective in their careers. In order to be able to critically evaluate research, as well as produce research on your own, it is important that you have some understanding of statistics. Although we will emphasize the theory behind statistical procedures (i.e., when and why), we will need to conduct a good deal of statistical analyses (i.e., how) in order to facilitate your understanding of the material. It is my hope that upon completion of this semester students will:

- have a working knowledge of basic statistical terminology
- understand the principles behind descriptive and inferential statistics
- effectively analyze data for common descriptive and univariate inferential problems using both hand calculations as well as a computer program
- effectively communicate results using APA format and interpret statistical findings.

Method of Evaluation: Grades will be determined based on scores on 4 in-class exams and scores on 3 SPSS/APA format tests. Each exam is worth 60 points; SPSS/APA tests are worth 20 points each.

Exam total: 4 exams x 60 points	=	240
SPSS/APA tests: 3 x 20 points	=	60
total		300

A	279-300	A-	267-278		
B+	258-266	B	249-257	B-	240-248
C+	231-239	C	219-230	C-	210-218
D+	201-209	D	189-200	D-	180-188
F	179 or lower				

In class exams will consist of multiple choice and problem assignments. SPSS/APA tests will consist of in-class tests focusing on generating SPSS output, interpreting SPSS output, and writing results and interpreting findings using APA format.

Missed Classes: Students are expected to come to every class. If a student must miss a class, it is expected that they will get missed notes from a classmate.

Missed Exams/tests and makeups: If a student must miss an exam for whatever reason, they may request to take a comprehensive final exam. The comprehensive final exam will be 120 points covering all material in the class. Students taking the comprehensive will have the normal 3 hour examination period to complete the exam. Any additional missed exams, for whatever reason, will result in 0 points for that exam. Students who take all three scheduled exams prior to the final may nevertheless request to take a comprehensive final exam. The student will then count the comprehensive final (out of 120 points) and the highest two remaining exam grades toward their exam total out of a possible 240 points. Students who take

all exams prior to the final, and who do not request a comprehensive final, will take a final exam worth 60 points testing only the material covered since exam 3.

SPSS/APA tests require that students work on a computer in class to generate SPSS output. Each test is worth 20 points, and the output constitutes half of the grade (i.e., 10 points). If students miss the SPSS/APA exam, they will not be able to generate the SPSS output and will automatically lose 10 points. They may, however, request to complete the APA portion of the test at a later time, with the instructor's permission, in order to earn a possible 10 points.

Deadlines: January 25th is drop/add deadline. **March 1st** is deadline to withdraw with W.
Academic Misconduct: Cheating in any form may result in an F in the course and other academic sanctions. Please read the student handbook carefully for policies on academic misconduct. See me if you are having trouble with the course. **Other than calculators, the use of any electronic device, including cell phones, during testing/exam periods is not permitted.**
Materials needed: Calculator that can square and take square root in addition to basic functions. Scantron sheets.
Competencies
Exam 1 – sampling, basic design terminology, measurement and scales, percentiles, graphs and tables, central tendency, variability, standardized scores, basic elements of probability, probability and normal curve.
Exam 2 – central limit theorem, power, type I and type II errors, sampling distributions and standard error, hypothesis testing, confidence intervals, directional and non-directional one sample t-tests and z tests, independent-samples t-test
Exam 3 – related samples t-test, oneway analysis of variance (ANOVA), post-hoc tests, repeated-measures ANOVA, two-way ANOVA, interactions and main effects.
Exam 4 - nonparametic tests: Chi-square and Kappa, correlation, simple regression.

	Tuesday	**date**	**Thursday**
date		13-Jan	intro/design
18-Jan	measurement	20-Jan	percentiles and graphs
25-Jan	central tendency	27-Jan	variability
1-Feb	z scores and probability	3-Feb	**exam 1**
8-Feb	**SPSS/APA exam 1**	10-Feb	hypothesis testing/ zscores
15-Feb	power/type 1 and 2 errors	17-Feb	confidence intervals/ 1 sample t
22-Feb	independent samples t	25-Feb	independent samples
1-Mar	**exam 2**	3-Mar	**spss/APA exam 2**
8-Mar	related samples t	10-Mar	**oneway anova**
15-Mar	**no class**	17-Mar	**no class**
22-Mar	post-hoc	24-Mar	repeated measures
29-Mar	2-way anova	31-Mar	2 way anova
5-Apr	**exam 3**	7-Apr	chi-square
12-Apr	chi-square/correlation	14-Apr	correlation
19-Apr	**SPSS/APA exam 3**	21-Apr	**no class**
26-Apr	regression	28-Apr	regression
		5-May	**Final Exam11:30am-2:30 pm**