

Fall 2009 Statistics 225
M, W 1pm-3:45pm in SB 220

Instructor: Bryan Myers, Ph.D.

Office: SB 110G

Phone: 962-3636

Email: myersb@uncw.edu

Office hours: Mondays 3:45-4:45pm and Tuesdays 3:30-4:30pm or by appt.

Textbook: Gravetter, F.J., & Wallnau, L.B. (2006). Statistics for the Behavioral Sciences (7th ed.). Wadsworth Publishing.

Teaching Assistant: Amber Thacker, aet3044@uncw.edu. Room 105 SB. Wed 4-5pm, and Thursday 3:30-4:30pm or by appt.

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 critical 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 using common descriptive and univariate inferential techniques
- effectively analyze data using both hand calculations as well as computer programs

Method of Evaluation: Grades will be determined based on 2 measures: (1) scores on 4 in-class exams, (2) scores on 5 SPSS homework assignments

Exam total: 4 exams x 60 points = 240

Homework: 5 assignments x 12 = 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 short answer, essay, multiple choice, and problem assignments. Homework assignments will consist of SPSS data entry and analysis problems. Penalties will be assigned for homework assignments handed in late. Class attendance is mandatory.

Students are required to take all exams at the scheduled times. Students without a valid excuse for a missed exam will not be granted a makeup exam and will receive a score of 0 for that missed exam. Any makeup exams that are allowed will be offered following the final exam during a time period that does not conflict with the student's exam schedule.

Academic Misconduct: Cheating in any form may result in an F in the course and other academic sanctions. Please read the student handbook (Code of Student Life, Academic Honor Code) carefully for policies on academic misconduct. See me if you are having trouble with the course.

Important Dates

8/26 – drop/add

9/16 – **exam 1**

10/8 – last day to drop class with a W

10/19 – **exam 2**

11/9 – **exam 3**

12/7 @ 11:30am – **final exam**

Competencies

Exam 1 – sampling, descriptive versus inferential statistics, measurement, scales and notation, percentiles, graphs and tables, central tendency, variability, standardized scores, basic elements of probability, probability and normal curve (chapters 1-6).

Exam 2 – central limit theorem, power, type I and type II errors, standard error, hypothesis testing, confidence intervals, directional and non-directional one sample t-tests and z tests, independent-samples t-test, related samples t-test (chapters 7-12).

Exam 3 – simple analysis of variance (ANOVA), post-hoc tests, repeated-measures ANOVA, factorial analysis of variance, interactions and main effects (chapters 13, 14, 15).

Exam 4 - Chi-square tests of independence and goodness of fit, Kappa, correlation (Pearson, Spearman, point-biserial, phi), simple regression. (chapters 16, 17, 18).

Materials you will need for the class:

- 4 scantron sheets for the 4 exams. Form No. 882-E (green) or 239770 (red).
- textbook
- calculator that can add, subtract, multiply, divide, square, and take the square root. Phone calculators are not allowed to be used during exams.

	fall 2009	225		Schedule
week	Monday	topic	Wednesday	topic
1			19-Aug	INTRO
2	24-Aug	measurement/design	26-Aug	graphs and percentiles
3	31-Aug	central tendency	2-Sep	variability/spss
4	7-Sep	no class	9-Sep	variability and z scores
5	14-Sep	z scores and probability	16-Sep	exam 1
6	21-Sep	CLT	23-Sep	Hypothesis testing
7	28-Sep	z and confidence intervals	30-Sep	1 sample t
8	5-Oct	no class	7-Oct	independent samples t
9	12-Oct	independent/spss	14-Oct	related samples t
10	19-Oct	exam 2	21-Oct	anova
11	26-Oct	post-hoc	28-Oct	repeated measures
12	2-Nov	2 way anova	4-Nov	2 way anova
13	9-Nov	exam 3	11-Nov	chi-square
14	16-Nov	chi-square	18-Nov	correlation
15	23-Nov	correlation	25-Nov	no class
16	30-Nov	regression	2-Dec	regression
	7-Dec	11:30-2:30 final exam		