Psychology Statistics Lab

Psy 3605, Summer 2013
TTh 5:30 – 7:00p, Social and Behavioral Science 325
Heather Chapman, heatherchapman@weber.edu
Hurst Center 102L
Office Hours: By Appointment

Required Text:

1. SPSS QuickStarts, N. J. Salkind & S. Green

COURSE OVERVIEW & LEARNING OUTCOMES

The purpose of the course is to apply basic statistical techniques to a variety of types of data. The course will cover statistical processes of data entry and cleaning, descriptive analysis, graphic analysis, and methods of factorial and correlational analysis.

Learning outcomes for this course have been developed around the 4 general learning objectives of the Psychology Department at Weber State University, and are based on recommendations of the APA: Knowledge, Application, Values/Ethics, and Communication. Specifically, the outcomes for the class are as follows:

KNOWLEDGE – Students will understand psychology as a scientific discipline.
1.1 Psychology Statistics Lab Content Knowledge
Students will identify the processes involved in data analysis in the social sciences. This includes learning both graphical and statistical procedures for analyzing group differences as well as correlational relationships. Methods covered include, but are not limited to, t-tests, ANOVA, correlation, and regression. Distinguishing characteristics include identification of independent and dependent variables, types of variables used in each method, assumptions of each method and how to remedy unmet assumptions, as well as correct interpretation of results.

APPLICATION – Students will apply psychological principles to explain social research and better understand the results of their own investigations.
2.1 Psychology Statistics Lab Application
Students will apply appropriate statistical methods to a variety of types of data. Students will adequately interpret results of statistical tests. This will include analysis of assumptions and correct interpretation of both magnitude and size of effect of all results.

VALUES/ETHICS – Students will display an attitude of skepticism and intellectual curiosity about psychological issues. Students will recognize the need for ethical guidelines and will practice ethical behaviors in regard to the field of psychology.
3.1 Psychology Statistics Lab Values
In learning the distinguishing characteristics of statistical methods, students will describe the implications on results of using the wrong method to analyze data, identify data that is biased, and describe the effects of analyzing biased data.

3.2 Psychology Statistics Lab Ethics
Students will summarize relevant information into a written or graphical document that is appropriately aligned with the proper referencing guidelines. Students will critique statistical analyses for bias and write results that address these biases when necessary.

COMMUNICATION – Students will professionally communicate their understanding of terms, concepts, and theories via written and oral format.
4.1 Psychology Statistics Lab Written Communication – Logic
Students will explicitly outline logical flow of information from broad to most fine-grained and will present all statistical results in logical form moving from least specific to most specific analyses; this logic will follow the form of "if A then B then C" and all evidence within the document will relate back to this logic.
4.2 Psychology Statistics Lab Written Communication – Clarity
Students will write in a clear and concise manner; appropriate professional language and tone will be used.

Academic Integrity and Honesty Policy:
Any academic dishonesty will not be tolerated. If a student is caught engaged in academic dishonesty in this course, he or she risks failing the course and being subject to academic discipline including the imposition of university sanctions. For more information, please see the university policy on cheating, which can be found in the WSU Student Code, Section IV, Part D, Paragraph 2.

Students with Disabilities/Requests for Accommodations:
Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in Room 181 of the Student Services Center (or Room 221 at the Davis Campus). SSD can also arrange to provide course materials in alternative formats upon request. To contact SSD by phone: (801) 626-6413 – Ogden; or, (801) 395-3524 – Davis. http://www.weber.edu/ssd

Use of Technology:
The use of cell phones, smart phones, or other mobile communication devices is disruptive, and is therefore prohibited during class. Except in emergencies, students using cell phones will be asked to leave. Students are permitted to use computers during class for note-taking and other class-related work only. Those using computers during class for work not related to class content will be asked to leave.

Contacting the Instructor:
If at any point any student has questions or problems during the course of the semester, please feel free to contact the instructor. Use of the Canvas email system as the initial contact point for the instructor is recommended. Please allow 24-48 hours for a response. If for some reason you don't receive a response from me through Canvas, my e-mail address is always an option, but please out of courtesy, use Canvas first. This assures that your email will not go unnoticed or get misplaced in the day-to-day shuffle of emails.

ASSIGNMENTS & GRADING

APA Note: *Please note that all assignments are expected to be double-spaced, and follow correct APA format.*

Course Requirements:
Canvas: All correspondence with students outside of class time will be through use of Canvas, which can be found using the following link: canvas.weber.edu

Attendance (5pts x 13):
Due to the applied nature of this course, attendance is required. Assignments will be handed out and explained during class. Each day of participation will be worth **5 points** for a total of **70 points**. 65 points make up the attendance portion of your final grade, leaving the potential for 5 extra points for students with perfect attendance.

Weekly Assignments (25pts x 9):
There will be **10** weekly assignments. Each assignment will require running a statistical analysis, graphically displaying results, and describing these results in a written description formatted to meet APA guidelines. There will be a conceptual and application component to each assignment. Assignments are due at the end of class on their specified due dates. Your lowest assignment score during the semester will be dropped. The remaining 9 assignments will be worth **25 points** each. Late assignments are accepted with a penalty. Assignments turned in prior to the next class period will receive a 10% penalty. Those turned in within two class periods of the due date will receive a 20% penalty. Late work will not be accepted beyond this range.

Lab Quizzes (50pts x 3):
Due Dates: May 21, June 4, June 20
Three lab quizzes will be given during the semester. These quizzes will assess conceptual understanding of the concepts covered up to the quiz date. Quizzes are not intended to be comprehensive, although many of the concepts in statistics build upon one another, or are otherwise related. In this way, it will be necessary to use concepts learned during many previous class periods in each of the quizzes. Quizzes are worth **50 points** and must be completed in class on the due date, unless authorized by the instructor beforehand.

Points Breakdown:

Attendance (5pts x 13)	65 pts
Weekly Assignments (25 pts x 9)	225 pts
ThreeLab Quizzes (50 pts each)	150 pts
Total	**440 points**

Grading Scale:

A	93-100%	C	73-75%
A-	89-92%	C-	69-72%
B+	86-88%	D+	66-68%
B	83-85%	D	62-65%
B-	79-82%	F	Below 62%
C+	76-78%		

Changes in Course Assignments and Schedule:

The instructor reserves the right to adjust course readings, assignments, and test dates to best attain the objectives of the course. Any changes will be announced in class, and it is the responsibility of the student to attend class in order to learn about these changes.

Date	Topic	Due
7-May	Introduction, SPSS & Excel Basics	
9-May	Creating & Manipulating data in SPSS	HW#1
14-May	Descriptive Statistics & Graphing	HW#2
16-May	Introduction to z-scores and Hypothesis Testing	HW#3
21-May	**Lab Quiz #1**	
23-May	One-sample t-test	HW#4
28-May	Independent & Paired Samples t-tests	HW#5
30-May	One-Way ANOVA	HW#6
4-Jun	**Lab Quiz #2**	
6-Jun	Two-Way ANOVA	HW#7
11-Jun	Repeated Measures ANOVA	HW#8
13-Jun	Correlation	HW#9
18-Jun	Regression	HW#10
20-Jun	**Lab Quiz #3**	