PSYCHOLOGY 611
DATA ANALYSIS I - FALL 2012
189 PLC Tues. & Thurs. 10:00 - 11:20

Professor:	Teaching Assistant:	Teaching Assistant:
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Course Description: This course is the first in a 3-term sequence of classes designed to provide a thorough grounding in statistical concepts, methods, and applications of relevance to psychological science (and related sciences). The aim of the course is to help students develop skills in the analysis and interpretation of real psychological data. Our focus will be conceptual rather than mathematical (e.g., it is more important to understand why a particular statistical technique is appropriate, and how to make sense of the results obtained from its use, than to understand the full mathematical underpinnings of the statistic). During the course we will make heavy use of the computer, although you will also be asked to carry out hand computations illustrating key statistical principles.

Required Textbook: Howell, D.C. (2013). *Statistical Methods for Psychology* (8th Ed.). Belmont, CA: Wadsworth.

Recommended Textbook: Berkman, E.T. & Reise, S.P. (2012). *A Conceptual Guide to Statistics Using SPSS*. Thousand Oaks, CA: Sage**.**

Lectures and Laboratories: A list of lecture topics and reading assignments can be found on the following page. Lecture notes will be available on the course Blackboard web site (see below) prior to the relevant lectures. Please bring these notes to class. The course labs will be held each Friday (10-11:20 or 11:30-12:50) in 180 Straub. The labs will provide an opportunity to gain hands-on computing experience illustrating concepts discussed in lectures. They will also involve discussion of the weekly problem sets and reviews prior to exams, as well as allowing you the chance to raise any questions you have concerning lectures or the textbook.

Software: In this course we will be using SPSS software (version 20). The software is installed on the PCs in 180 Straub (open 8am-5pm Monday through Friday), and is available for use when classes are not held (access the lab schedule through http://psychweb.uoregon.edu/calendars). The university has a site license for SPSS: The software can be downloaded on any university owned machine (http://it.uoregon.edu/software/spss). If desired, students can also lease SPSS for use on personally owned computers. The SPSS Standard Graduate Pack is available from http://www.onthehub.com/spss/ for about $90 for a 12 month lease. Be sure your computer is powerful enough to run it, and be sure to get the right version: SPSS *Standard* Graduate Pack, not the scaled down SPSS Base Graduate Pack.

Exams: There will be two exams: an in-class midterm and a take-home final. Exams will be cumulative, with an emphasis on more recent material. Exams will be open book. It will be helpful to have a calculator for the exams but to receive credit for calculation problems you will need to show each step of your calculations; do not rely on an advanced calculator in using complex formulas.

Problem Sets: Problem sets will be assigned each week. Normally, the problem sets will be handed out on the Tuesday (thus giving you the opportunity to try them before the Friday lab) and will be due by email at 10am the following Tuesday. The problem sets will be graded on a 10-point scale. Collaborative learning is encouraged: If you want to discuss the problems with other students, feel free to do so. However, the answers you turn in should be written *independently*. If you have difficulties with the problems, please consult with Nicole, Rose, or me.

Grading: The problem sets will count for 35% of your grade, the midterm for 30%, and the final for 35%. Problem sets and exams will be graded by the teaching assistants using explicit criteria that I will provide. The teaching assistants have taken this course previously and performed at a superior level. If anyone has concerns about their work being graded by a fellow graduate student, please see me and we can consider alternative arrangements.

Blackboard: The course web site can be accessed through the Blackboard course information system. On the web site, you will find general announcements for the class, lecture notes, problem sets and solutions, links to relevant web sites, and more. To visit the course site, go to http://blackboard.uoregon.edu, login, and then select "PSY 611" from the list of blackboard course sites in which you are enrolled. If you are having difficulty with Blackboard, go to http://libweb.uoregon.edu/scis/blackboard/.

OUTLINE OF LECTURE TOPICS

Date	Topic	Reading
Sept 25-27	Exploratory Data Analysis	H Chs 1 & 2; BR Ch. 2
Oct 2-4	Distributions	H Chs 3, 4, 7.1 & 7.2
Oct 9-18	Hypothesis Testing & Estimation: T Tests	H Chs 7 & 8; BR Ch. 5
Oct 23-25	One-Way Analysis of Variance	H Ch. 11; BR Ch. 6
Oct 30	Contrasts	H Ch. 12; BR Ch. 6 (pp. 86-91)
Nov 1	MIDTERM	
Nov 6-8	Two-Way Analysis of Variance	H Ch. 13 (except 13.12 & 13.13); BR Ch. 7
Nov 13-20	Correlation & Regression	H Chs 9 & 10 (except 10.4 & 10.5); BR Chs 4 & 11
Nov 22	Thanksgiving	
Nov 27–Dec 29	Analysis of Categorical Data	H Chs 5, 6, 10.4, & 10.5; BR Ch. 3
Dec 7	TAKE HOME FINAL EXAM DUE AT 9AM	