Psychology 302 (CRN 14313)
Statistical Methods in Psychology
Fall 2004
Lecture: Mon./Wed./Fri., 9-9:50, 142 Straub Hall
Lab: Thursdays 12-1:20, 2:00-3:20, or 4-5:20 180 Straub Hall

Instructor:

Stephan Dickert
309 Straub Hall
346-4937
sdickert@darkwing.uoregon.edu
Office Hrs: Wednesdays 10-11am, Fridays 10-11am, + by appointment

Lab Coordinators:

Andra Teten (Labs – Thursdays 12-1:20p, and Thursdays 2-3:20p)
326 Straub Hall
346-4993
ateten@darkwing.uoregon.edu
Office Hrs: Tuesdays 4-6pm + by appointment

Sharon Tang (Lab – Thursdays 4-5:20p)
448 Straub Hall
346-4999
stang@darkwing.uoregon.edu
Office Hrs: Thursdays 3-4 + by appointment

Course Description: This course will cover the use of basic statistical methods in psychology. You will learn how to analyze data and how to answer basic research questions. Many of the concepts and procedures in this course involve mathematical calculations, particularly arithmetic and algebra. You do not need to be a math genius to do well; however, familiarity with algebra is required for the course.

Course Prerequisite: Mathematics 111 (or equivalent)

Materials:

Textbook (required): Essentials of Statistics for the Behavioral Sciences (4th ed.)
Students are responsible for reading the assigned chapters prior to class meeting. You are not expected to master the material but to expose yourself to the major concepts we will be covering. This preparation will make lectures more meaningful and productive.

Calculator (strongly recommended): It is recommended that you bring a calculator to every class session. This will help you with any in-class problems requiring calculations, and the habit of bringing the calculator to class will increase the likelihood that you remember to bring it on exam days.

University of Oregon e-mail account (strongly recommended): We will be using the Blackboard website (http://blackboard.uoregon.edu) for this course. You are all registered with the site and logging on is much easier to do with a university account compared to an outside account.

Lectures and Laboratories

Attached is a list of lecture topics and reading assignments from the text. Lectures and lecture handouts will be posted on Blackboard the day of the lecture. In addition to the lectures, there are weekly laboratory sessions designed to 1) provide review and demonstrations of topics covered in class, 2) show you how to do statistical computations using the popular statistical program SPSS, 3) discuss the problem sets, and 4) review for exams. Please plan to attend your lab session (Thursdays 12-1:20,2:00-3:20, or 4-5:20).

Exams

There will be four (4) bi-weekly exams and a final exam, each consisting of multiple choice, short answer, and calculation problems. The final exam will be open book. Calculators are allowed and encouraged; however, *to receive full credit for calculation problems on exams, you will need to show each step of your work.* Make-up examinations for each exam may be given only under extreme circumstances where *the instructor* has been notified of your absence ahead of time (e.g., serious illness, injury, family death). Proof of the extenuating circumstance needs to be provided (e.g., doctors note). There will be no make-ups offered for the final exam.

Homework (HW)

Homework: Most weeks, you will be assigned problem sets as homework. Problem sets will usually be posted on Blackboard on Monday, to be due on Monday of the following week. Homework is due at the beginning of class on Mondays. If you forget to bring your homework to class, it can be turned in to the psychology department office (in Straub Hall). *Be sure to put your name and your Lab Coordinator's name on the assignment.* It is a good idea to bring questions on the problem sets to lab sessions. As with exams, your work must be shown in order to get full credit for homework problems. Late homework will receive a 25% reduction in your score per day that it is late (i.e., 1 day- 25%, 2 days- 50%, 3 days- 75%, 4 days- no points). So, if you turn in your homework on Monday after 9am but before Tuesday 9am, you will receive a 25% reduction.

Grading

Homework	130 points	(10 first problem set, 15 for subsequent)
Exams	80 points	(20 each exam)
Final Exam	100 points	
	310 points	

I do reserve the right to curve the final grades. Letter grades will be assigned using the following scale (based on percentage of total points earned):

%	Grade
98-100	A+
93-97	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
> 70	Pass
< 70	No Pass

Additional Notes:

- Concerns: If you find yourself doing more poorly in the class than anticipated, please see the Instructor or your Lab Coordinator sooner rather than later. If you wait to come forward with any problems, you may find that it is too late to do anything about your grade.
- Cheating: Cheating will not be tolerated. If cheating is discovered on the final exam or quizzes, then the University will be notified and appropriate action will be taken. You may work together on the problem sets, but each student needs to turn in an individually completed problem set for credit.
- Accommodations: If one of the following applies to you, please see the instructor *as soon as possible* to make adjustments.
  - Documented learning disability
  - Non-documented need for adjustments to help you learn
  - On a sports team that travels this quarter
  - English is not your first language

  With advance planning, adjustments are relatively easy. Adjustments at the last minute are problematic and sometimes not possible.

Tentative List of Lecture Topics and Readings

Date	*Topic(s)*	*Reading*
Sep. 27 M	Orientation, Introduction	Appendix A, Ch. 1
Sep. 29 W	Frequency Distributions, Graphs	Ch. 2
Oct. 1 F	Central Tendency	Ch. 3
Oct. 4 M	Variability	Ch. 4
Oct. 6 W	Z-scores	Ch. 5
Oct. 8 F	**Exam 1**	
Oct. 11 M	Probability, Inference to Samples	Ch. 6, Ch.7
Oct. 13 W	Standard Error, the Z_x test	Ch. 7
Oct. 15 F	Hypothesis Testing—Introduction	Ch. 8
Oct. 18 M	Hypothesis Testing—More Issues	Ch. 8
Oct. 20 W	One-sample t-test	Ch. 9
Oct. 22 F	**Exam 2**	
Oct. 25 M	Independent samples t-test	Ch. 10
Oct. 27 W	Related samples t-test	Ch. 11
Oct. 29 F	Introduction to analysis of variance	Ch. 13
Nov. 1 M	One-way analysis of variance	Ch. 13
Nov. 3 W	Two-way analysis of variance	Ch 14.3
Nov. 5 F	**Exam 3**	
Nov. 8 M	Effect size v. the p-value	handout
Nov. 10 W	Bivariate Correlation	Ch. 15
Nov. 12 F	Linear Regression, R-squared	Ch. 15
Nov. 15 M	Chi-square Goodness of Fit	Ch. 16
Nov. 17 W	Chi-square test of independence	Ch. 16
Nov. 19 F	**Exam 4**	
Nov. 22 M	Surprise	N/A
Nov. 24 W	Which test do I use?	A-70
Nov. 26 F	NO CLASS – Thanksgiving break	N/A
Nov. 29 M	Year in Review Part 1 - DEAD WEEK (optional)	
Dec. 1 W	Year in Review Part 2 - DEAD WEEK (optional)	
Dec. 3 F	Year in Review Part 3 - DEAD WEEK (optional)	
Dec. 10 F	**Final Examination – 10:15a-12:15p – Straub Hall 142**	