

**Psychology 302 (CRN 35739)**  
**Statistical Methods in Psychology**  
Spring 2004

Lecture: Tues./Thurs., 10:00-11:20, 242 Gerlinger  
Lab: Thursday 12:00-1:20, 2:00-3:20 or 4:00-5:20, 180 Straub Hall

**Instructor:**

Nathan Dieckmann  
329 Straub Hall  
346-4963  
ndieckma@darkwing.uoregon.edu  
Office Hrs: Th 12:00-2:00, or by appointment

**Lab Coordinators:**

Jennifer Tininenko (Labs – Thursday 2:00- 3:20 & 4:00-5:20))  
202 Straub Hall  
346-4881  
jtininen@darkwing.uoregon.edu  
Office Hrs: Mon 1:00-2:00, Thursday 1:00-2:00, or by appointment

Sharon Tang (Lab – Thursday 12:00-1:20)  
448 Straub Hall  
346- 4999  
stang@darkwing.uoregon.edu  
Office Hrs: Wed 9:00-10:00, or 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, and familiarity with arithmetic and algebra is required.

**Course Prerequisite:** Mathematics 111 (or equivalent)

**Materials:**

Textbook (required): Essentials of Statistics for the Behavioral Sciences (4<sup>th</sup> 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 12:00-1:20, 2:00-3:20 or 4:00-5:20, 180 Straub Hall).

## 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:** Most weeks, you will be assigned problem sets from the textbook as homework. Problem sets will be posted on Blackboard on Monday and due the following Monday morning. Homework will be turned in to the psychology department office (in Straub Hall) no later than 10:00am. *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%, excluding weekends).

## Grading

Homework	130 points	(10 first problem set, 15 for subsequent)
Exams	140 points	(35 each exam)
Final Exam	100 points	
<b>370 points</b>		

Letter grades will be assigned using the following scale (based on percentage of total points earned). Individual exam scores will not be curved, although the final cumulative grade cutoffs may be adjusted if necessary.

%	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**

<i>Date</i>	<i>Topic(s)</i>	<i>Reading</i>
Mar. 30 Tu	Orientation, Introduction	Appendix A, Ch. 1
Apr. 1 Th	Frequency Distributions, Graphs Central Tendency	Ch. 2; Ch. 3
Apr. 6 Tu	Variability	Ch. 4
Apr. 8 Th	Z-scores	Ch. 5
Apr. 13 Tu	Probability, Inference to Samples <b>Exam 1</b>	Ch. 6, Ch.7;
Apr. 15 Th	Standard Error, the $Z_x$ test Hypothesis Testing—Introduction	Ch. 7, Ch. 8
Apr. 20 Tu	Hypothesis Testing—More Issues	Ch 8
Apr. 22 Th	One-sample t-test	Ch. 9
Apr. 27 Tu	<b>Exam 2</b>	Ch. 10
Apr. 29 Th	Independent samples t-test	Ch. 11
May. 4 Tu	Related samples t-test Introduction to analysis of variance	Ch. 13
May. 6 Th	One-way analysis of variance	
May. 11 Tu	<b>Exam 3</b>	
May. 13 Th	Two-way analysis of variance	Ch 14.3
May. 18 Tu	Effect size v. the p-value Bivariate Correlation	Ch. 15
May. 20 Th	Linear Regression	Ch. 15
May. 25 Tu	Chi-square Goodness of Fit	Ch. 16; A-70
May. 27 Th	<b>Exam 4</b>	
Jun. 1 Tu	Chi-square test of independence Which test do I use?	
Jun. 3 Th	More Which test? Year in Review	
<b>Jun. 11 Fri.</b>	<b>Final Examination 8:00-10:00 242 Gerlinger</b>	

