

<p style="text-align: center;">Course Syllabus, Spring 2016 Psychology 302: Monday and Wednesday 2 :00 – 3 :20 145 Straub</p>
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Office Hours: Monday and Wednesday 1:00-2:00

GTFs:
Office:
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Office Hours:

Course Description: Statistics are central to research in many sciences, including psychology. Statistical analyses help to answer the empirical questions that researchers have, allowing them to evaluate data for patterns and to make conclusions. Statistics are central to everyday life as well. We use them to predict the weather, determine the price of insurance, see trends in voting, predict disease trends, make money on the stock market; the examples go on and on. Understanding the concepts behind statistics will help you to see the world more rationally and perhaps make better decisions.

Course Objectives: The goals of this course are to help you:

- Improve your ability to identify patterns in data and relate these patterns to substantive issues.
- Select and perform the correct statistical analysis procedures, either by hand (for basic statistics) or using a computer software program.
- Explain statistical analyses and concepts in writing.
- Understand the statistical analyses of others as presented in journals or reports.

This class is much more than a math class. While math is involved, the majority of it is fairly simple. The theoretical concepts of this class are much more important, and often more difficult. If you are mathphobic do not fear, once you get the concepts the mathematical will be straightforward.

Course Design: You will be best served by being active learners (always work along with the exercises). You are encouraged to work collaboratively on all assignments (other than exams). The instructor and TAs are valuable resources you should take advantage of (ask questions in class, labs, and during office hours).

Book, Aplia, & Calculator: The required text is Gravetter & Wallnau, *Essentials of Statistics for the Behavioral Sciences*, 7th edition. Assigned chapter should be read **before** class. Aplia is the online program you will use to complete your homework (except for SPSS problems). You **MUST** purchase this. An e-book of the textbook is included with Aplia so you are not required to purchase a hard copy of the text. You will also need a hand-held **calculator** that can do single variable statistics. No need for graphing calculators. **Bring calculator & text to class.**

Course Requirements: Your grade for this class will be based on 3 things:

1. **Exams:** There will be a two midterm exams and a final exam. The exams will include questions taken from the text, lab, and lecture. As the nature of statistics is cumulative, the exams will be as well. However, there will be a focus on the most recently learned material. There will be some calculation required so you will be permitted to use a calculator (electronic devices other than a simple calculator will not be an acceptable replacement). Another important aspect of the exams will be to select the test that is most appropriate based on the research question and structure of the data. As the focus of this class is on conceptual understanding rather than memorization you will be provided with a sheet with all of the formulas required to complete the exam.

Makeup Exams: It is important to be prepared and present for all scheduled exams. However, I recognize that there are some situations in which you simply cannot make it to an exam. In the case of a serious illness, emergency, religious observance, or university sponsored event, make up exams will be allowed. If you have a scheduled university sponsored event or religious observance, you must let me know well in advance of the listed exam date (at least 1 week) and we will arrange for you to take an exam before you leave. If you have a serious illness or an emergency, you must let me know prior to the exam (before 9:00am) and we will make arrangements for a make-up. Documentation that verifies the event (e.g., a note from a physician) will be required upon request. If you have questions about what type of documentation is required for a specific situation, contact me.

2. **Homework:** Homework assignments are due **Sunday evenings at midnight, electronically.**

Homework has two components:

- Aplia software questions. These become unavailable when due, so **cannot be turned in late.**
 - o Make sure to register with Aplia using the same name that you use on Canvas for grading
 - o You will get three attempts at the right answer. Your score will be the average of all attempts.
- The SPSS portion of the homework should be completed as a Word document (.doc). Make sure to include any relevant SPSS output in your file. To turn it in, go to the course Canvas page, 'Assignments.' This will lead to a page where you can upload your document.
 - o For help, <http://library.uoregon.edu/scis/Canvas/faq/students/s9.html> or ask lab instructor
 - o 10% reduction in points available for every day late (for SPSS portion only – no late Aplia).

3. **Attendance:** Participation points are gained from in-class exercises on random lecture days. Credit is based not at all on whether you got the right answer, but only on whether you tried. There is strong correlation between class attendance and final grade. Missing class may leave you confused, and missing lab will make it VERY difficult to complete the homework correctly. Do not expect the instructors to repeat material they already presented in class or lab; office hours are best used for review and discussion of material after doing the reading and attending lecture, and for help with homework. Slides from lecture will be posted on Canvas, but you may want to arrange to share notes with a classmate since much of the material will be presented on the whiteboard and may not be found on the slides.

Grading: Your final grade in the course is based on your total points accumulated on the three tests, your homework, and attendance, as described above. To summarize:

Midterm Exams (15% each)	= 30%
Final Exam	= 20%
Homework	= 40%
<u>Attendance</u>	<u>= 10%</u>

The following grid provides the letter grade associated with each percent.

A	93-100%	B	83-86.9%	C	73-76.9%	D	63-66.9%
A-	90-92.9%	B-	80-82.9%	C-	70-72.9%	D-	60-62.9%
B+	87-89.9%	C+	77-79.9%	D+	67-69.9%	F	59.9% or below

Students with Disabilities: If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with me during the first week of classes. Please request that the Counselor for Students with Disabilities send a letter verifying your disability. Students without a documented disability who are experiencing learning difficulties are encouraged to consult Disabilities Services (164 Oregon Hall; 346-1155; disabsrv@uoregon.edu; <http://ds.uoregon.edu/>). If you have a non-documented disability, I encourage you to contact Disabilities Services.

Collaborative Learning: Discussing homework with other students and your instructors is encouraged, as are homework and study groups for quizzes and exams. However, an individual homework must be submitted by each student (not photocopied or copy-paste) and all hand calculations must be shown. If there are required substantive conclusions or summaries those must also be written individually. Finally, all exams must be completed individually. Copying during the exams is cheating and will at the very least result in a zero on the exam. I encourage you to review the University policy on academic dishonesty; you are responsible for behaving in accordance with this policy and continued enrollment in this class will be considered implicit agreement that you have read and accepted the terms of that policy.

Suggestions for Success:

1. Keep up!!
 - Read before class so you are ready to participate and will get the most out of lecture.
 - Complete homework on time. If you fall behind it is harder to focus on the new material.
 - Don't try to cram before exams. You can't learn the required skills overnight.
2. Be active!!
 - Actively participate in your learning.
 - Use the Learning Checks in the textbook to assess your comprehension.
 - Practice the calculations.
 - Work along with the instructors during exercises.
 - Ask questions.
3. Don't give up!!
 - Statistics will be new to most of you and as a new skill it takes time to learn and master.
 - Being able to do statistics is a skill not an innate ability.
 - If you don't get it the first time that doesn't mean you will not be able to do so with practice.
 - If you get stuck try a new tactic.
 - If you are really stuck ask for help.

Class Etiquette & Norms:

- Arrive on time and stay for the entire class.
- Treat your fellow students and your instructors with respect.
- Turn the ringer off on your cell phone during class.
- If you attend class, please be attentive (no texting, reading novels, web-surfing, etc).
- Ask questions and speak up during class.
- Stop by and see Jordan and your GTFs during office hours.

Date	Topic	Readings	Assignment/Exams
3/28 3/30	Introduction Scaling, Histograms, Frequency Tables Lab 1	Ch.1-2	
4/4 4/6	Central Tendency Variability Lab 2	Ch. 3 Ch. 4	HW 1 due by Midnight Sunday
4/11 4/13	Z-Scores and Normal Distribution Probability Lab 3	Ch. 5 Ch. 6	HW 2 due by Midnight Sunday
4/18 4/20	Distribution of Sample Means Hypothesis Testing Lab 4	Ch. 7 Ch. 8	HW 3 due by Midnight Sunday
4/25 4/27	One Sample t-test Lab 5	Ch. 9	HW 4 due by Midnight Sunday Midterm 1 (Ch. 1-7)
5/2 5/4	Independent Samples t-test Related Samples t-test Lab 6	Ch. 10 Ch. 11	HW 5 due by Midnight Sunday
5/9 5/11	Estimation One-way ANOVA Lab 7	Ch. 12 Ch. 13	HW 6 due by Midnight Sunday
5/16 5/18	Factorial ANOVA Repeated ANOVA Lab 8	Ch. 14 (428-456) Ch. 14 (414-428)	Midterm 2 (Ch. 1-12, focus on 8-12); HW 7 due by Midnight Sunday
5/23 5/25	Correlation Regression Lab 9	Ch. 15 (466-498) Ch. 15 (498-517)	HW 8 due by Midnight Sunday
5/30 6/1	Chi-Square Wrap-up No Lab	Ch. 16	HW 9 due by Midnight Sunday
Thursday 6/9	Final Exam at 2:45 PM		Cumulative