

Psychology 302
Statistical Methods in Psychology
Winter 2016
Mondays & Wednesdays 14:00-15:20
101 LLCS

Course instructor:

Elif Isbell, Ph.D.

Email: elif@uoregon.edu

Office hours: Thursdays 9:00-10:30

Office: STB 385

Lab instructors:

Jordan Miller-Ziegler, M.S.

Lab sections:

CRN 25230 - Tuesdays 10:00-11:20 STB 006

CRN 25231 - Tuesdays 12:00-13:20 STB 006

Email: jmillerz@uoregon.edu

Office hours: Mondays 15:30-17:00 and Thursdays 12:30-14:00

Office: LISB 229

Jason Wallin, M.S.

Lab Sections:

CRN 25236 - Tuesdays 12:00-13:20 STB 008

CRN 25238 - Tuesdays 14:00-15:20 STB 008

CRN 25239 - Tuesdays 16:00-17:20 STB 008

Email: jwallin@uoregon.edu

Office hours: Thursdays 10:30-12:30 or by appointment

Office: STB 432

Course Description and Goals:

This class is a foundation course for statistical methods in psychology. Throughout the term, you will learn:

- the general goals, basic terminology and notation used in statistics
- how to organize and summarize results obtained from research
- how to formulate and test scientific hypotheses
- the foundations for inferential statistics
- some of the inferential procedures used in psychology research
- how to select the appropriate statistical analyses needed to answer specific research questions
- how to write up the results of statistical analyses in APA style
- how to interpret the statistical analyses presented by researchers

For an extended description of learning objectives, please see: <https://blogs.uoregon.edu/psychology/files/2014/09/PSY302-Extended-Description-201yccw.pdf>

Required Materials:

- **Aplia:** This is an online program you will use to complete homework assignments. Purchase is required.

To register: <https://login.cengagebrain.com/cb/entitlement.htm?code=V9J9-GC99-U87U>

- **Text:** Gravetter, F. J., & Wallnau, L. B. (2013). *Essentials of statistics for the behavioral sciences* (8th edition). Belmont, CA: Thomson/Wadsworth. This is bundled with Aplia as an e-book. **Hard copy not required.**

- **iClickers:** Please register your iClicker on the Canvas site, and bring your iClicker with you to every class. To register your iClicker in Canvas:

i>clicker —> i>clicker Registration

Also see: https://canvas.uoregon.edu/courses/26168/pages/enabling-browser-cookies-and-registering-i%3Eclickers?module_item_id=108448

Canvas: Canvas will be used in this course as an online resource for the syllabus, lecture slides, and lab materials. It is recommended that you frequently check Canvas in order to stay up to date on the course materials that are posted from week to week. Please note that lecture slides will be posted before each lecture, and an updated version will be posted the day after the lecture. Important announcements will also be sent via email, so it is best to get into the habit of checking your email daily. If you send an email to the instructor, expect to receive a reply within 24 hours.

Coursework include the following:

Course work	% of final grade
In-class activities (iClicker & Handouts)	10
Quizzes	30
Final Exam	20
Homework (Aplia & SPSS)	40
Total	100

In-class activities (10%):

You will have a total of 15 in-class activities, administered during lectures. Each one will be worth 1% of your final grade points. Your top 10 scores will be used for your final score. This means you can miss or drop 5 in-class activity without losing any points. The activities will include material from the assigned readings and lecture of the day. The goal of these activities is to promote critical thinking of the materials covered in class and readings. There will be no make-up for any of the activities, so if you miss one for any reason, your score will be 0 for that activity.

Quizzes (30%):

Quizzes cover material from the assigned readings and lectures. Due to the nature of the course, quizzes will inevitably be somewhat comprehensive, but the majority of the questions will be on the more recent topics covered up to that quiz. All quizzes will be multiple-choice. Each quiz will take place at the end of the lecture.

You will have 4 quizzes (please see the class schedule for the days each quiz will be administered). Each quiz is worth 10% of the final grade. There will be no make-up for any of the quizzes, so if you miss one for any reason, your score will be 0 for that activity. Your top 3 scores will be used for your final score. This means you can miss or drop one quiz, without losing any points.

Final Exam (20%):

There will be a comprehensive final exam, which will test your knowledge on all materials covered throughout the term. The final exam will take place during the finals week, **14:45 p.m. Wednesday March 16th in class**. Please note that there will be no make-up offered for the final exam, except for documented medical emergencies and university-sponsored events.

If you have a letter from the Accessible Education Center (AEC), and plan on taking the quizzes or the final exam at the AEC or the Testing Center, please make sure to give a copy of your official letter to Dr. Isbell to ensure the requested accommodations.

Homework (40%):

Homework has two components:

- a. **Aplia software questions:** After the due date and time, these assignments become unavailable. Therefore, **Aplia assignments cannot be turned in late**. *If you do not register Aplia by the final date, you will lose all Aplia points!!*

Make sure to register with Aplia using the same name that you use on Canvas for grading.

You get up to three attempts to answer questions correctly. Your score will be the highest of all three attempts ("Keep Highest").

- b. **SPSS questions:** Complete the SPSS portion of the homework as an electronic document. Download this from Canvas (see "Assignments"), copy and paste *relevant* SPSS output in the document, and upload back to Canvas.

For help, see <https://blogs.uoregon.edu/canvas/support/> or ask your lab instructor. SPSS assignments will lose 10% of points every day they are late, including weekend days, starting at 6:00 pm on Fridays.

Aplia assignments cannot be late; see above.

Starting Week 2 homework assignments are due on **Fridays at 6 pm, electronically**.

Collaboration

We strongly encourage collaborative learning, but you must produce (and we must assess) individual work. Discussing homework with other students and instructors is encouraged, as are homework and study groups. Talking over problems and reworking them when you get different answers promotes deeper understanding of concepts. However, each student must submit individual homework assignments (i.e., *written independently with no word-for-word copying*). You also must show your work for hand calculations. Thus, while we encourage you to work together to solve problems and check answers, the actual writing of answers needs to be done independently.

Academic Misconduct at the University of Oregon

Upon the discovery of suspected Academic Misconduct as detailed in the link below, the instructor will follow the Academic Misconduct Procedures detailed by the Office of the Dean of Students:

<https://uodos.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode.aspx>

Cheating is defined as providing or accepting information on an exam, plagiarism or copying anyone's written work, or allowing someone else to copy your work. Discovery that a student has cheated will lead to a grade of F in the course for that student, and we will inform UO's student conduct coordinator. Also please note that we retain the right to assign seats for tests, to change an individual's seating for test security purposes, to require and check ID for admission to tests.

Accessible education: If you have a documented need for accommodations in this course, please make arrangements to meet with the instructor soon. Also please request that the Accessible Education Center send a letter verifying your documented needs for accommodations.

<http://aec.uoregon.edu>

Study skills resources: Teaching and Learning Center offers various programs and workshops throughout the term.

<http://tlc.uoregon.edu>

Students for whom English is a Second Language: If you are a non-native English speaker and need to use a dictionary during the exams, please see the instructor as soon as possible to make any necessary special arrangements.

If you are ill: Please contact the instructor as soon as possible. PLEASE STAY AT HOME and away from class for at least 24 hours after your symptoms are gone.

Weekly Schedule of Topics and Assignments

Please see the next page for the details of the weekly schedule of topics and assignments. Please note that this is only a working draft of the course outline, and may be revised at the instructor's discretion.

Week	Day	Date	Topic	Read	Assignments
1	M	1/4	Introduction to Statistics, Variables	Ch 1	
	W	1/6	Variables, Frequency Distributions	Ch 1, 2	
	T	1/5	No lab		
2	M	1/11	Central Tendency and Variability	Ch 3, 4	
	W	1/13	z-Scores	Ch 5	
	T	1/12	Lab 1		HW 1 due 1/15 6 pm
3	M	1/18	MLK Jr. Day - no class		
	W	1/20	Probability and Normal Distribution	Ch 6	Quiz 1
	T	1/19	Lab 2		HW 2 due 1/22 6 pm
4	M	1/25	Distribution of Sample Means	Ch 7	
	W	1/27	Hypothesis Testing	Ch 8	
	T	1/26	Lab 3		HW 3 due 1/29 6 pm
5	M	2/1	t-Statistic	Ch 9	
	W	2/3	Independent Samples t-Test	Ch 10	Quiz 2
	T	2/2	Lab 4		HW 4 due 2/5 6 pm
6	M	2/8	Related Samples t-Test	Ch 11	
	W	2/10	Introduction to ANOVA	Ch 12	
	T	2/9	Lab 5		HW 5 due 2/12 6 pm
7	M	2/15	One-way ANOVA	Ch 12	
	W	2/17	Repeated Measures ANOVA	Ch 13	Quiz 3
	T	2/16	Lab 6		HW 6 due 2/19 6 pm
8	M	2/22	Factorial ANOVA	Ch 13	
	W	2/24	ANOVA Review	Ch 13	
	T	2/23	Lab 7		HW 7 due 2/26 6 pm
9	M	2/29	Correlation	Ch 14	
	W	3/2	Regression	Ch 14	Quiz 4
	T	3/1	Lab 8		HW 8 due 3/4 6 pm
10	M	3/7	Chi-Square	Ch 15	
	W	3/9	Review & Recap		
	T	3/8	Lab 9		HW 9 due 3/11 6 pm
Final			14:45 Wed, March 16		Final Exam

Final letter grades:

Letter grade	% earned	Letter grade	% earned
A+	top two scores	C+	73-76
A	93-100	C-	70-72
A-	90-92	D+	67-69
B+	87-89	D	63-66
B	83-86	D-	60-62
B-	80-82	N	< 70
C+	77-70	P	70 or higher

Also see: <http://psychology.uoregon.edu/courses/department-grading-standards/>