

## Syllabus Spring 2017

### Statistical Methods (Psychology 302) CRN 35091, 240C MCK

**Time:** MW 12:00 - 14:20

**Instructor:** Theodore Bell, Ph.D.

tbell1@uoregon.edu,

Office: Straub 385, Office hours: Wednesday 10-11:50

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#### **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
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#### **Required Materials:**

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

**To register:** <http://login.cengagebrain.com/course/ABRN-W36G-2TZV>

• **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](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. 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.

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#### **Coursework include the following:**

<b>Course work</b>	<b>% of final grade</b>
In-class activities (iClicker & Handouts)	10
Quizzes	10
Midterms	20
Final Exam	20
Homework (Aplia & SPSS)	40
<i>Total</i>	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 (10%):**

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 be made available online. You will have one hour to complete them. You will have 2 quizzes (please see the class schedule for the days each quiz will be administered). Each quiz is worth 5% 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.

**Midterms (15%):** Midterms will cover material in the same way as quizzes, but will be held in class. You will have 2 midterms (see schedule). Each Midterm is worth 7.5% of the final grade.

### **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, 10:15 Thur, June 15 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 1 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 Dishonesty Policies**

Plagiarism will result in a zero on any assignment.

Cheating on any exam, or assignment will result in a failing grade in class.

All academic misconduct and suspected misconduct will be reported to the Office of Student Conduct, this is mandatory and not at the discretion of the instructor

### **Grading scheme:**

The final grade assigned for the course should reflect the student’s overall performance in the course, as described by the following guidelines: A *excellent* work, complete mastery of course material B *good* work, grasps most of the important concepts C *average* work, grasps many but not all aspects of course material D *poor* work, insufficient understanding of material F failing

Grades will be assigned based on your total percentage points in the course:

<b>GRADE</b>	<b>PERCENTAGE</b>	<b>GRADE</b>	<b>PERCENTAGE</b>
A+	99-100%	C	72-77%
A	92-98%	C-	70-71%
A-	90-91%	D+	68-69%
B+	88-89%	D	62-67%
B	82-87%	D-	60-61%
B-	80-81%	F	59% and Below

**Teaching Philosophy:** A teacher is part coach, part actor, part bandit (lifting from anywhere that will help), and part student (still always learning). A student is open to new ideas, diligent in effort to master new things, eager to surpass him/herself, is an active partner in the process, and part cowboy (always willing to get back up on the horse that bucked him or her off).

**Classroom interactions:** We are all adults, and I would like to emphasize that all communications should be respectful of the participants. It is extremely important to me that we maintain a respectful environment while promoting a diversity of opinions and ideas. Participants should feel free to offer up their ideas, and should expect that those ideas be the focus of any critical analysis rather than the person discussing them. In other words, ideas are fair game for criticism, but personalizing attacks will not be tolerated. Also, if you find yourself distracted by, or become a distraction with your cell-phone, please put it in airplane mode. Likewise for your laptops.

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## **Student Accommodations**

**Students with Disabilities:** If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with me. Also, please request that the Accessible Education Center (164 Oregon Hall, <http://aec.uoregon.edu/contact.html>) send me a letter verifying your disability. The phone number for AEC is 346-1155 and the email address is [uoac@uoregon.edu](mailto:uoac@uoregon.edu)

**Students for Whom English is Not Their Native Language:** Foreign language dictionaries are permitted during exams. If you find that you do need additional time to complete the first exam, please let me know, and we will make arrangements ahead of time for all future exams.

**Study skills resources:** Teaching and Learning Center offers various programs and workshops throughout the term. <http://tlc.uoregon.edu>

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## Course Calendar: Subject to minor change

	Week/Date	Topic	Readings	Assignments
<b>1</b>	<b>Mon: 4/3</b> <b>Wed: 4/5</b> <b>LAB 1:</b>	Intro Variables, Freq. Distr. Orientation to SPSS, lab overview	Ch 1 Ch 1, 2	HW 1
<b>2</b>	<b>Mon: 4/10</b> <b>Wed: 4/12</b> <b>LAB 2:</b>	Central Tendency Variability	Ch 3 Ch 4	HW 2
<b>3</b>	<b>Mon: 4/17</b> <b>Wed: 4/19</b> <b>LAB 3:</b>	z-Scores Probability	Ch 5 Ch 6	<b>Quiz 1</b> HW 3
<b>4</b>	<b>Mon: 4/24</b> <b>Wed: 4/26</b> <b>LAB 4:</b>	Distribution of Sample means Hypothesis testing	Ch 7 Ch 8	HW 4
<b>5</b>	<b>Mon: 5/1</b> <b>Wed: 5/3</b> <b>LAB 5:</b>	t-statistic Independent Samples t-test	Ch 9 Ch 10	HW 5
<b>6</b>	<b>Mon: 5/8</b> <b>Wed: 5/10</b> <b>LAB 6:</b>	Related Samples t-test Intro to Anova	Ch 11 Ch 12	<b>Midterm 1</b> HW 6
<b>7</b>	<b>Mon: 5/15</b> <b>Wed: 5/17</b> <b>LAB 7:</b>	Repeated Measures ANOVA Factorial Anova	Ch 13 Ch 13	HW 7
<b>8</b>	<b>Mon: 5/22</b> <b>Wed: 5/23</b> <b>LAB 8:</b>	ANOVA review Correlation	Ch 14	<b>Quiz 2</b> HW 8
<b>9</b>	<b>Mon: 5/29</b> <b>Wed: 5/31</b> <b>NO LABS:</b>	Memorial Day, no class Regression	Ch 14 Ch 15	no labs
<b>10</b>	<b>Mon: 6/5</b> <b>Wed: 6/7</b> <b>LAB 9 :</b>	Chi-Square Recap		<b>Midterm 2</b> HW 9
<b>Finals</b>	<b>Thurs: 6/15</b>		<b>Final exam</b> <b>10:15</b> <b>Thurs.</b>	