Syllabus: Spring 2018 Psychology 302 Statistical Methods
CRN (35022MW) 4 Credits with Lab

Time & Location: MW 8:30-9:50 (245 STB)
Instructor: Theodore Bell, Ph.D. tbell1@uoregon.edu
Office: Straub 385, Office hours: Mon 10:00-11:50, Wed 10:00-11:50, Thurs: 1:00-2:00 & By Appointment
CRN 35022 GEs: Sara Lieber, slieber@uoregon.edu, Pooya Razavi pooyar@uoregon.edu

Texts & Required Materials:
Textbook: *Corty: Using and interpreting statistics (3rd edition).* This is bundled with LaunchPad as an e-book. A physical copy of the textbook is optional.

Online Homework: *LaunchPad for Corty: Using and Interpreting Statistics (3rd edition):*
This is an online program that you will use to access the eBook version of the textbook and complete homework assignments. Purchase is required. The most economical is to purchase the digital access (that includes the e-textbook + LaunchPad) via the Duck Store. We negotiated better pricing and longer access than you would be able to get elsewhere. You can get 3 weeks of free trial access before you buy. You will access Launchpad through Canvas for frequent homework assignments.

iClicker: Please register your iClicker on the Canvas site for this. You will need an iClicker to get credit for class participation

Calculator: We will often work out problems in-class, please bring a calculator or use an app on your phone. It does not have to be a graphing calculator.

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 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.

Course Description:
This class is a foundational course for statistical methods in psychology. It is the second part of a three-part series. Building on the Scientific Thinking course (Psy 301), this course will deepen your understanding of statistical methods and validity and give you practical experience with a range of statistical methods and help prepare you for the Research Methods course (Psy 303). Topics include descriptive statistics, probability, hypothesis testing, correlation, ANOVA, regression.

Prerequisites: MATH 243 or one from MATH 241, MATH 246, MATH 251; PSY 301, WR 121; Pre- or coreq: PSY 201, 202

Expected Learning outcomes:
Mastery of the basic goals, terminology, and notation used in inferential statistics
Develop and show facility in organizing and summarizing results obtained from research using APA format
Demonstrate ability to formulate and test scientific hypotheses in a statistical framework
Articulate the basic principles of statistical inference and sampling
Demonstrate ability to select appropriate statistical analyses for specific research designs
Interpret statistical analyses presented by other researchers in the primary literature
Conduct statistical analyses by hand or using statistical software (typically SPSS)

Student Workload:

Lectures: Students will typically have two chapters per week assigned as reading. The first few weeks are partial review and will have more chapters assigned. Attendance is expect and mandatory for lectures.

Online Homework: Each week, 3 assignments per chapter assigned will be due. Assignments can very from just a few minutes to closer to 1 hour. You will need to be working on these throughout the week in order to keep pace.

Exams and Quizzes: This class will have two major midterms, 1 final, and two smaller online quizzes available through Canvas and listed on the Course Schedule (below).

Lab and Lab Homework: Attendance at lab is mandatory, and each week you will be assigned 1-2 homeworks. Each assignment may take anywhere from 1-2 hours to complete.

Overall: For a 4 credit class, the university expectation is that you will spend approximately 12 hours per week in class and outside of it. Your mileage may vary. Please arrange to meet with me if you have workload concerns, I can help you become more efficient in planning your studies and work.

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Grading:

Class participation:	**5%**
Quizzes:	**10% (5% each)**
Midterms:	**30% (15% each)**
Final Exam:	**20%**
Online Homework:	**15% (each assignment of equal value)**
Lab Attendance:	**5%**
Lab homework:	**15%**

Grade Distribution:

GRADE	PERCENTAGE	GRADE	PERCENTAGE
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
C+	78-79%		

Class Participation: To get credit, you must participate in class exercises using iClicker. You are allowed one miss, You must have iClicker registered by the beginning of Week 2 to obtain full credit.

Quizzes: Quizzes cover material from the assigned readings and lectures. Due to the nature of the course, quizzes will inevitably be somewhat cumulative, 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: Midterms will cover material in the same way as quizzes, but will be held in class. You will have 2 midterms (see schedule). Format of Midterms will be mainly multiple choice but occasionally with some short answer.

Final Exam: The final exam will be similar in format to the midterms, and will be cumulative over the whole course.

Online Homework: You must purchase LaunchPad and access it through Canvas. Assignments are due each week (see schedule for times). Each homework will have several components (Typically 3: key terms, Learning Curve, and Practice

quizzes). You should do them asap each week. You must complete them all for full credit. They are designed to help you master the materials, not to burden you, do not put them off.

Lab Attendance: to get credit you must attend all labs, you are allowed one miss.

Lab Homework: SPSS is a statistical package that we will rely on to conduct our analyses. Each week, there will be 1-2 SPSS worksheets to download from canvas with instructions and problems to complete. You will be uploading your responses to Canvas by the due dates (see schedule). SPSS assignments will lose 10% for each late day.

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Course Schedule

Dates	Topic	Read	HW/Quizzes Saturday 1:00 P.M.
W1 4/2--4/6		Ch 1-4	
D1	Intro & Review		Ch 1-4
D2	Z-scores		
Labs	Orientation to SPSS, LABs, Online HW SPSS 1		SPSS 1
W2 4/9—4/13		Ch 5-6	
D1	Probability & Sampling		Ch 5-6
D2	Hypothesis Testing		
Labs	SPSS 2, SPSS 3		**Quiz I,** SPSS 2,3
W3 4/16—4/20		Ch 7-8	
D1	Intro to T-statistic		Ch 7-8
D2	Independent Samples T		
Labs	SPSS 4: Z-tests		SPSS 4
W4 4/23—4/27		Ch 9	
D1	Related Samples T		Ch 9
D2	**Midterm I**		
Labs	SPSS 5 T-Tests		SPSS 5
W5 4/30—5/4		Ch 10	
D1	Intro to ANOVA		Ch 10
D2	One-way ANOVA		
Labs	SPSS 6 ANOVA		SPSS 6
W6 5/7—5/11		Ch 11-12	
D1	Repeated measures ANOVA		Ch 11-12
D2	Factorial ANOVA		
Labs	SPSS 7 ANOVA		SPSS 7
W7 5/14—5/18		Ch 11-12	
D1	ANOVA Summary & Review		
D2	**Midterm II**		
Labs	TBA		
W8 5/21—5/25		Ch 13-14	
D1	Correlation		Ch 13
D2	Regression		Ch 14
Labs	SPSS 8 Regression		SPSS 8
W9 5/28—6/1		Ch 14-15	
D1*			
D2	Regression		**Quiz II**
Labs	**NO LABS**		
W10 6/4—6/8		Ch 15-16	
D1	Chi-Square		Ch 15-16

D2	Recap & Review		
Labs	SPSS 9 Chi-Square		SPSS 9
Finals 6/11-- 6/15	**FINAL 10:15 6/11/2018**		**FINAL**

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Course Policies:

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.

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 themselves, is an active partner in the process.. *Lecture slides are not a substitute for the text, nor can they be relied upon as a substitute for missing class.* Many things are discussed in lecture, only bullet points are on slides.

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, nor will any form of bigotry or intimidation.

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. If you are aware that you may need to come to class late, or leave early, please let me know beforehand, and sit by the door if possible.

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 uoaec@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

Peer Tutoring: The Department of Psychology has established outside Peer tutoring for Psy 303. There will be announcements made in class and in lab regarding this, but the Peer Tutoring is generally available weekdays in the lab in Straub 237A and is an excellent resource.