PSYCH 100A Syllabus
Psychological Statistics
Spring 2019

Instructor: Amanda Kay Montoya
Office: LSB 5324
Office Hours: M (10am – 11am), W (12pm – 1pm)
Email: akmontoya@ucla.edu
Phone: 310-794-5069
Website: akmontoya.com

TA: Isabella Boyadjian
Office: LSB 2811
Office Hours: Tu 11am – 1pm
Email: iboyadjian@ucla.edu

TA: Meredith Boyd
Office: Franz 1177
Office Hours: Th 11am – 1pm
Email: meredithboyd@ucla.edu

Course Description

This is an interactive course on statistics and data analysis in psychological contexts. We focus on how to think about statistics both from a research perspective and in your everyday lives. We start with how we take variation in the world and turn it into data. We then develop tools and concepts for exploring variation in data, modeling variation in data, and evaluating models.

Course Materials

Online interactive text (homework)

Your textbook and homework are integrated together into an online course. Completing the reading and activities in the online course considered your homework. Lectures are designed to connect ideas and concepts learned through the interactive textbook, rather than to teach the same material again. We are using a new set of materials authored by a psychology professor here at UCLA and his colleagues. I will be working closely with him throughout the quarter to improve the textbook based on your experiences.

The materials are housed on the Canvas learning management system. To register for the online materials use this link: https://canvas.instructure.com/enroll/H67TL3. I recommend you use your official UCLA email address (the one on file with the registrar) when you register for Canvas. This is the email we will use to send you links to the quizzes and final exam. Using your official email makes it easier for us to link your grades to your work. (You can find your official UCLA email address by logging into CCLE and checking the gradebook.)

The course materials are best accessed on a laptop or desktop computer (the materials are not particularly mobile friendly). **I recommend using Chrome as your browser**. Having a laptop for quizzes and course work will be required for the course. Individuals who need a laptop can make use of the library's lending program: https://www.library.ucla.edu/clicc/lending.

PollEverywhere.com
We will use polleverywhere.com during lectures. This website acts as an alternative to clickers. You will receive an email from Poll Everywhere support@polleverywhere.com with instructions on how to register. **Please do not register until you receive the email invitation**. It will be sent to the email you used to sign up for Canvas.

BruinCast of Lectures
All lectures will be video recorded by BruinCast. They can be accessed through the class website on CCLE.

Learning Outcomes

By the end of this course you will be able to:

1. Create and interpret data visualizations which align with statistical models described in this course.
2. Identify, apply, and interpret statistical models which include a single continuous outcome variable and one continuous, dichotomous, or categorical explanatory variable.
3. Translate among verbal descriptions of models, general linear model using mathematical notation, and R code.
4. Implement multiple methods for generating sampling distributions and apply these to generating confidence intervals and model comparison.
5. Identify and critique common misconceptions about basic statistical and probabilistic results.
6. Interpret written descriptions of simple general linear model results in published psychological literature.

Expectations for Students

In this course, you will engage in a variety of learning experiences beyond lecture. We will use paired activities, group activities, full class exercises to enhance everyone's learning, and successful students will participate and engage with each opportunity. You will come to class on time and prepared: having completed all assigned homework before class starts. During class, you will support each other in our activities, and you will value the learning of your peers similarly to your own learning. Technology will be used when needed; personal interaction will be used when needed. You will be respectful to other's opinions and questions, which is to say that you may disagree with your peers (and some activities are designed to elicit disagreement), but you will respect and value their opinion when you disagree. When you have questions and concerns you will seek out me and/or your peers, and continuously feed your curiosity (you are here to learn after all and we're all here at UCLA to push the boundaries of knowledge).

Expectations for Instructor

I aim to create an environment in our classroom which is supportive of all students regardless of their identities, experiences, or views. I am committed to fostering equity of opportunity for all by eliminating any and all discrimination, harassment, bullying, or victimization. The success of this commitment relies on the support and understanding of all of us in the class. We all have a responsibility not to be offensive to each other, or to participate in, or condone harassment or discrimination of any kind. Students in this class will have a variety of different experiences and backgrounds, particularly in statistics and research methods, and we must all work to be accepting and welcome of all levels of learning and development.

UCLA's Office for Equity, Diversity, and Inclusion provides resources, events, and information about current initiatives at UCLA to support equality for all members of the UCLA community. I hope that you will communicate with me if you experience anything in this course that does not support an inclusive environment, and you can also report any incidents you may witness or experience on campus to the Office of Equity, Diversity, and Inclusion on their website.

Learning Assessment

Grades will be based on:

Homework	20%
In-Class Activities	15%
Quizzes	20%
Midterm Exam	20%
Final Exam	25%

Why I do not grade on a curve: In recent years, research into higher education assessment practices have shown that grading on a curve can create unnecessarily competitive environments for students and result in outcomes that disadvantage some groups of students over others. This is true in data collected and analyzed for our students at UCLA as well. For this reason, I do not grade on a curve. Your grade is therefore not based on how you did in comparison to your peers, but instead how successful you are at evidencing that you have mastered the intended learning goals for that specific assessment. However, if I do find that particular assessment questions I gave an assignment or exam were unreasonably challenging, unclear, or unfair for any reason I will provide additional credit as appropriate. If you ever feel that an assignment or specific question is unfair or confusing please come and speak with me (ideally before it is due or during the assessment, but afterwards is also okay) so that we can address this concern as soon as possible. I am committed to making sure the assessment of your learning is comprehensive, fair, and incorporates best practices from education research on assessment design and inclusive practices.

Grading Scale:

Letter Grade	GPA	Percentage
A+	4.0	97.5-100%
A	4.0	93%-97.49%
A-	3.7	90%-92.9%
B+	3.3	87%-89.9%
B	3.0	83%-86.9%
B-	2.7	80%-82.9%
C+	2.3	77%-79.9%
C	2.0	73%-76.9%
C-	1.7	70%-72.9%
D	1.0	60%-69.9%
F	0	0%-59%

Course Activities

Class Time: I strongly suggest you bring a laptop to class so that you can actively engage with the examples in the class. Make sure you charge your laptop before class!

In-class dashboard. Find the in-class dashboard at bit.ly/amanda100Aclass. Everything you need to do in class you can do from this page: Participate in PollEverywhere, ask question from Ask for Me!, run R code in DataCamp.

PollEverywhere. We will use PollEverywhere in class to check in with how things are going and what you're learning. See above for information on how to sign up and sign in.

Ask For Me! One of the best ways to increase understanding is by asking questions – even, and especially, the ones you're not very confident about. You'd be surprised how many other students have the same question, but are afraid to ask! Your questions help you learn, but they also help others learn as well. If you have questions during lecture, you can, (1) Raise your hand, or (2) Enter your question at bit.ly/AFMMontoya100A (or through the class dashboard). Questions are anonymous, and go instantly to the TA, who will organize questions and ask them for you in class. This has worked well in other classes, in the past; I hope you're excited to give it a try.

Homework: All homework is to be completed online using your Canvas account (see instructions above). Reach each page carefully, do all of the embedded questions, R exercises, and practice quizzes at the end of each chapter. Homework is due each week according to the schedule below. **You should expect the homework to take 6 – 8 hours per week, so start early!** Homework is graded for completion, not correctness. Completing the homework is a process of learning, and we don't expect you to get everything right the first time around. However, you will not get credit for gibberish responses. The homework is designed to help you learn, and check your own understanding. The purpose of the homework is not to demonstrate your understanding of the material (that's what the quizzes and exams are for). **Write down questions you have as you go through the homework,** bring those questions to office hours and lecture or post them on the discussion forum on Canvas. Everything in the textbook is fair game for exams. **Homework is due on Mondays at 11:59pm** (See Course Schedule Below)**.**

Quizzes: Throughout the course there will four quizzes. Quizzes will be given during the Friday lab sections (see schedule below). Quizzes can include multiple choice or short answer questions. Quizzes will be administered online and should be taken on a laptop (not mobile friendly). **You must bring a wifi connective device to class on quiz days.** You must be present to participate in the quiz, even though it's online. All quizzes are cumulative. Your lowest quiz grade will be dropped. Missed quizzes cannot be made up. You will be provided a copy of the Rcheatsheet during the exam. In addition, you may bring one singled sided 8.5'' x 11''notesheet with handwritten notes (not photocopied or typed). Your note sheets must be turned in with your quizzes.

Exams: There will be two exams (Midterm and Final) administered in the class. The midterm will be during a Friday lab section (see schedule below) and the Final will be during finals week (see schedule below). For all exams you'll need to bring a **wifi enabled** device (preferably a laptop). Make sure the device is fully charged, as there will not be amply outlets for everyone. You will be provided a copy of the Rcheatsheet during the exam. In addition, you may bring one singled sided 8.5'' x 11''notesheet with handwritten notes (not photocopied or typed). Your note sheets must be turned in with your exams. All exams are cumulative.

Course Schedule

This is a tentative schedule and subject to change, with schedule adjustments posted on CCLE announcements.

Week	Monday (HW Due 11:59pm)	Tuesday (In-Class)	Thursday (In-Class)	Friday (Lab Section)
1 (4/1 – 4/5)		Chpt 1,2: Modeling Approach & Understanding Data	Chpt 3,4: Examining Distributions & Explaining Variability	Lab Activity: Intro to R
2 (4/8 – 4/12)	Chapters 1,2,3,4	Chpt 1-4: Review and Recap	Chpt 5 (Intro): The Simple Model	Quiz: Chpt 1 – 4
3 (4/15 – 4/19)	Chapter 5	Chpt 5 (Outro): The Simple Model	Chpt 6 (Intro): Quantifying Error	Lab Activity: Exploring Sums of Squares
4 (4/22 – 4/26)	Chapter 6	Chpt 6 (Outro): Quantifying Error	Chpt 7 (Intro): Adding an Explanatory Variable	Quiz: Chpt 5/6
5 (4/29 – 5/3)	Chapter 7	Chpt 7 (Outro): Adding an Explanatory Variable	Chpt 8 (Intro): Quantitative Explanatory Variables	Lab Activity: The Paired T-test
6 (5/6 – 5/10)	Chapter 8	Chpt 8 (Outro): Quantitative Explanatory Variables	Chpt 9 (Intro): Distributions of Estimates	Midterm (1 – 8)
7 (5/13 – 5/17)	Chapter 9	Chpt 9 (Outro): Distributions of Estimates	Chpt 10 (Intro): Confidence Intervals	Lab Activity: Exploring Confidence Intervals
8 (5/20 – 5/24)	Chapter 10	Chpt 10 (Outro): Confidence Intervals	Chpt 11 (Intro): Model Comparison	Quiz: Chpt 9/10
9 (5/27 – 5/31)	Chapter 11	Chpt 11 (Outro): Model Comparison	Chpt 12 (Intro): Putting it all together	An Introduction to SPSS
10 (6/3 – 6/7)	Chapter 12	Chpt 12 (Outro): Putting it all together	Wrapping Up	Quiz: Chpt 11/12

Final Exam 6/12/2019 @ 3pm - 6pm PST	

Student Resources for Support and Learning

Providing feedback to me: I encourage your feedback at any time throughout the quarter about things that are helping you learn, or things that aren't helping. Please communicate with me if there are ways that I can improve the course to better support student learning.

Personal Problems: I understand that sometimes life makes it difficult to focus on schoolwork. If you are having a personal problem that affects your participation in this course, please talk to me to create a plan. Please do not wait until the end of the quarter to share any challenges that have negatively impacted your engagement and academic performance. The sooner we meet, the more options we will have available to us to support your overall academic success. If you are not comfortable speaking with me directly, please utilize the other student resources provided below in order to understand how to best approach success in this course given your personal needs as soon as possible.

Academic Accommodations Based on a Disability: Students needing academic accommodations based on a disability should contact the Center for Accessible Education (CAE) at (310)825-1501 or in person at Murphy Hall A255. When possible, students should contact the CAE within the first two weeks of the term as reasonable notice is needed to coordinate accommodations. For more information visit www.cae.ucla.edu.

Campus Resources and Support Services around UCLA Available to Students:

- **Academic Achievement Program:** AAP advocates and facilitates the access, academic success, and graduation of students who have been historically underrepresented in higher education; informs and prepares students for graduate and professional schools; and develops the academic, scientific, political, economic, and community leadership necessary to transform society. Learn more at http://www.aap.ucla.edu/
- **Academics in the Commons at Covel Commons:** (310) 825-9315 free workshops on a wide variety of issues relating to academic & personal success www.orl.ucla.edu (click on "academics")
- **Bruin Resource Center:** Includes services for transfer students, undocumented students, veterans, and students with dependents. http://www.brc.ucla.edu/
- **Career Center:** Don't wait until your senior year – visit the career center today! http://www.career.ucla.edu/
- **Center for Accessible Education (Formerly Office for Students with Disabilities):** A255 Murphy Hall: (310) 825-1501, TDD (310) 206-6083; http://www.cae.ucla.edu/
- **College Tutorials at Covel Commons:** (310) 825-9315 free tutoring for ESL/math & science/composition/and more! www.college.ucla.edu/up/ct/
- **Counseling and Psychological Services Wooden Center West:** (310) 825-0768 www.caps.ucla.edu

- **Dashew Center for International Students and Scholars 106 Bradley Hall:** (310) 825-1681 www.internationalcenter.ucla.edu
- **Dean of Students Office; 1206 Murphy Hall:** (310) 825-3871; www.deanofstudents.ucla.edu
- **Lesbian, Gay, Bisexual and Transgender Resource Center Student Activities Center, B36:** (310) 206-3628 www.lgbt.ucla.edu
- **Letters & Science Counseling Service:** A316 Murphy Hall: (310) 825-1965 www.college.ucla.edu
- **Library**: Get help with your research, find study spaces, attend a workshop, rent a laptop, and more. Learn more: http://www.library.ucla.edu/
- **Students in Crisis:** From the Office of the Dean of Students: Faculty and Staff 911 Guide for Students, commonly known as the "Red Folder." This tool is intended to provide you with quick access to important resources for assisting students in need.
- **Student Legal Services; A239 Murphy Hall:** (310) 825-9894; www.studentlegal.ucla.edu
- **UCLAONE.com**: UCLA ONE is UCLA's interactive, online gateway for mentorship, professional networking, peer driven career advice and exclusive job leads. (Similar to LinkedIn for the UCLA community)

Additional Course Policies and UCLA Policies

Use of Laptops, Tablets or Phones in Class: You will need to use your laptop during class to follow along with your lectures. Please limit your use of tablets or phones in class which are unrelated to course content. Research finds that technological multitasking is likely to hinder not only your own learning, but also the learning of anyone who can see your screen. For the sake of your peers' learning, I therefore ask that when you use an electronic device during class, only have course content showing.

Message about Academic Integrity to all UCLA Students from UCLA Dean of Students: UCLA is a community of scholars. In this community, all members including faculty, staff and students alike are responsible for maintaining standards of academic honesty. As a student and member of the University community, you are here to get an education and are, therefore, expected to demonstrate integrity in your academic endeavors. You are evaluated on your own merits. Cheating, plagiarism, collaborative work, multiple submissions without the permission of the professor, or other kinds of academic dishonesty are considered unacceptable behavior and will result in formal disciplinary proceedings usually resulting in **suspension** or **dismissal**.

Forms of Academic Dishonesty: As specified in the UCLA Student Conduct Code, violations or attempted violations of academic dishonesty include, but are not limited to, cheating, fabrication, plagiarism, multiple submissions or facilitating academic dishonesty:

Cheating: Unauthorized acquiring of knowledge of an examination or part of an examination

- Allowing another person to take a quiz, exam, or similar evaluation for you
- Using unauthorized material, information, or study aids in any academic exercise or examination – textbook, notes, formula list, calculator, etc.
- Unauthorized collaboration in providing or requesting assistance, such as sharing information
- Unauthorized use of someone else's data in completing a computer exercise
- Altering a graded exam or assignment and requesting that it be regraded

Plagiarism: Presenting another's words or ideas as if they were one's own

- Submitting as your own through purchase or otherwise, part of or an entire work produced verbatim by someone else
- Paraphrasing ideas, data or writing without properly acknowledging the source
- Unauthorized transfer and use of someone else's computer file as your own
- Unauthorized use of someone else's data in completing a computer exercise

Multiple Submissions: Submitting the same work (with exact or similar content) in more than one class without permission from the instructor to do so. This includes courses you are currently taking, as well as courses you might take in another quarter.

Facilitating Academic Dishonesty: Participating in any action that compromises the integrity if the academic standards of the University; assisting another to commit an act of academic dishonesty

- Taking a quiz, exam, or similar evaluation in place of another person
- Allowing another student to copy from you
- Providing material or other information to another student with knowledge that such assistance could be used in any of the violations stated above (e.g., giving test information to students in other discussion sections of the same course)

Fabrication: Falsification or invention of any information in an academic exercise

- Altering data to support research
- Presenting results from research that was not performed
- Crediting source material that was not used for research

If after reviewing the information above, you are still unclear about any of the items – **don't take chances**, don't just take your well-intentioned friend's advice – ASK your Professor. Know the rules - Ignorance is NO defense. In addition, avoid placing yourself in situations which might lead your Professor to **suspect you of cheating**. For example, during an exam don't sit next to someone with whom you studied in case your answers end up looking "too similar."

Alternatives to Academic Dishonesty

- **Seek out help** – meet with your Professor, ask if there is special tutoring available.
- **Drop the course** – can you take it next quarter when you might feel more prepared and less pressured?
- **Ask for an extension** – if you explain your situation to your Professor, they might grant you an extended deadline.
- **See a counselor** at Student Psychological Services, and/or your school, college or department – UCLA has many resources for students who are feeling the stresses of academic and personal pressures.

Remember, **getting caught cheating affects more than just your GPA**. How will you explain to your parents, family and friends that you have been suspended or dismissed? How will it affect your financial aid award and/or scholarship money? Will you be required to, and be able to pay back that money if you are no longer a student? If you live in the university housing, where will you go if you are told you can no longer live there?

You have worked very hard to get here, so don't cheat! If you would like more information, please come see us at the Dean of Students' Office in 1206 Murphy Hall, call us at (310) 825-3871 or visit their website at www.deanofstudents.ucla.edu.

Please keep this syllabus easily accessible so that you can refer to it throughout the quarter. Contact me with any clarifying questions in advance of the quarter or within the first week. I look forward to getting to know you and supporting your learning in this course.