Psychology 2 Introduction to Psychological Statistics

UCSC, Summer Session 2, 2020 July 27th - August 28th

Instructor: Allison Nguyen

Email:

OH: Tues / Thurs 10 am - 11 am

Zoom link:

TA: Katherine Quinteros

Email:

OH: Mondays 12pm-1pm and Wednesdays 3pm - 4pm

Zoom link:

TA: Claudia Castañeda

Email:

OH: Monday 4:00pm-5pm and Friday 9:00am -10:00 am

Zoom link:

Important Summer Session Remote 2020 Deadlines:

Session 1:

Drop: Monday, June 29

Request for "W": Friday, July 10

Session 2:

Drop: Monday, August 3

Request for "W": Friday, August 14

8-Week:

Drop: Monday, July 6

Request for "W": Friday, July 24

10-Week:

Drop: Monday, July 6

Request for "W": Friday, July 24

Summer is unique. **You will not be dropped for non-attendance or non-payment.** You must drop yourself. Dropping before the deadline results in a full-tuition reversal/refund. Withdraw posts a W for the grade and full tuition is charged (no refund).

For all dates and deadlines, including 'change of grade option' (P/NP) and grades due, here is the summer academic calendar: https://summer.ucsc.edu/studentlife/index.html

For questions about dropping, requesting a W grade for a course, or withdrawing from the summer quarter, email summer@ucsc.edu.

Course Information: We use statistics to ask questions, understand information we are exposed to, and even to make decisions in our daily lives. This class focuses on statistical techniques used in psychology. You will be introduced to tools that will help you organize and interpret data. You will learn to summarize and describe data (descriptive statistics). You will also learn how to use statistics to answer questions by making inferences based on hypothesis testing using various methods (inferential statistics). This course is prerequisite to Psychology 181.

Enrollment requires PSYC 1/PSYC 20, and AMS 3/6/ MATH 3/4/11A/ or satisfactory placement score on math placement exam or CEEB Advanced Placement Calculus AB exam.

Course Goals:

- 1) Understand fundamental statistical concepts such as differences between variables (e.g., quantitative and categorical) and calculation of descriptive statistics (e.g., mean, standard deviation, etc.)
- 2) Read and interpret presentation of data in various forms (e.g., histograms, bar graphs, etc.)
- 3) Learn the concepts and procedures of statistical inference such as hypothesis testing, differences between a population and a sample, effect size, and analytical techniques including *t*-tests and analysis of variance
- 4) Apply knowledge from the course to your interpretation of the statistics in psychological and social science research
- 5) Learn some SPSS

Course Format: This will be an asynchronous class with set due dates for homework and final exams. The lectures will be posted **online in video format**, divided into weekly modules. It is your responsibility to watch the videos assigned for each week. There will be weekly readings to accompany the videos. There will be 5 reading checks throughout the quarter. Reading checks will be open all session and due the last day of class, however it is in your best interest to do them the week they are assigned.

There will also be twice-weekly homework assignments that open **Monday** at 12:00 am of each week and close **Sunday** at 11:59 pm. These assignments correspond to the videos and readings assigned each week.

The midterm will be available on the day scheduled (**Friday, August 7th**), and will be open from 12:00 am to 11:59 pm. You have 3 hours 30 minutes to complete the midterm once started. The midterm can only be taken once. The final will be available the final day of class (**Friday, August 28th**), and will be open from 12:00 am to 11:59 pm. You have 3 hours 30 minutes to complete the final once started. The final can only be taken once.

Please attend our office hours if you have questions about the material or want to chat!

A note on emails: Please include PSYC 2 in the subject line of your emails to us.

Required text: An Introduction to Psychological Statistics By Foster, Lane, Scott, Hebl, Guerra, Osherson, and Zimmer. This is a **free open source textbook** you can download here (https://irl.umsl.edu/oer/4/) by clicking the "download" button.

(Foster, Garett C.; Lane, David; Scott, David; Hebl, Mikki; Guerra, Rudy; Osherson, Dan; and Zimmer, Heidi, "An Introduction to Psychological Statistics" (2018). *Open Educational Resources Collection*. 4. https://irl.umsl.edu/oer/4)

Calculator: You will need a simple scientific calculator that has basic functions (like addition, multiplication, etc.) and can also calculate square roots and exponents. Your calculator CAN be attached to your cell phone, tablet, or laptop computer (but we ask that if it is, during exams, you ONLY use the calculator function). You are expected to know how to use your calculator – we will not be able to help you with this. It is your responsibility to have your calculator with you for exams and homeworks.

Computer and SPSS: You will not be required to use SPSS statistical software, but there will be a crash course in SPSS. You can download the software with installation instructions at: http://its.ucsc.edu/software/spss-students.html.

Requirements Overview:

- 1. Homework: 6 assignments covering topics from modules, 2 per week EXCEPT exam weeks, 5% of grade each (30% total)
- 2. Readings: There are readings on each topic we cover in class. These readings are necessary in order to perform well on the tests and homework. All readings will be from the book, and will be posted on Canvas as well as in the course schedule.
- 3. Reading checks: 1-2 problems from the textbook, 1 per week. 2% of grade each (10% total)
- 4. Midterm: 50 question multiple choice exam. 30% of grade
- 5. Final Exam: 50 question multiple choice exam. 30% of grade
- 6. Research participation (optional extra credit): Participation in up to 3 research studies or alternative paper assignment for up to 3% extra credit.

Homeworks: Homeworks will be posted to Canvas as part of weekly modules, and will be open from Monday 12:00 am of that week to Sunday at 11:59 pm. Please note that there are TWO homework assignments due per week except for weeks with exams. You are expected to show all work in your assignments. All work is expected to be your own - while you can (and should!) discuss the homework with your peers, everyone is expected to submit their own original work on Canvas. If you did discuss the homework with your peers, please list the people you discussed the homework with. No late homework will be accepted (unless you have emailed me or a TA).

Readings: Readings will be assigned each week. You are expected to read the assigned chapters before you attempt the homework.

Reading checks: Reading checks will consist of 1-2 problems assigned from the odd number problems at the ends of chapters in the textbook. There will be five reading checks throughout the session. You should attempt these after doing the readings, because the information will be fresh in your mind! Reading checks will open when the readings open each week, and will remain open until the last day of class (8/28). However, it is my advice that you do them the week they are assigned - they'll help with the homework.

Midterm: The midterm consists of 50 multiple choice questions. It will be open on Canvas from 12:00 am to 11:59 pm on **Friday, August 7th.** Once you start the exam, you have 3.5 hours to complete it, and you can only take it once.

Final: The final consists of 50 multiple choice questions. It will be open on Canvas from 12:00 am to 11:59 pm, on **Friday, August 28th**. Once you start the exam, you have 3.5 hours to complete it and you can only take it once.

A note on the midterm and final: Both the midterm and final are open-note. However, I ask that you refrain from using the book during your final, or from accessing other websites on your phone/tablet/laptop. I also ask that you take the midterm and final individually - please do not share answers or work together on these exams.

Grading Scale:

A+	96.67 % and above	В	83.34 to 86.66 %	C-	70.00 to 73.33 %
A	93.34 to 96.66 %	B-	80.00 to 83.33 %	D	60.00 to 69.99 %
A-	90.00 to 93.33 %	C+	76.67 to 79.99 %	F	below 60.00 %
B+	86.67 % to 89.99 %	C	73.34 to 76.66 %		

Course Calendar (subject to change):

Module	Dates	Topics	Assignments Due	Readings from textbook
Module 1 (Lecture Slides posted: Chapters	7/27 - 8/2	Intro to stats, frequency distributions, measures of central tendency, variability, Z-scores, probability	HW 1, HW 2 Reading Check 1 assigned	Chapter 1, 3, 4

1,2,3,4,5 6)				
Module 2 Lecture Slides: Chapter 7,8	8/3 - 8/9	Sample means, hypothesis testing	MIDTERM Reading Check 2 assigned	Chapter 7
Module 3	8/10-8 /16	One tailed hypothesis tests; T-statistics: one sample, independent t,, dependent t-tests,	HW 3, HW 4 Reading Check 3 assigned	Chapter 8, 10
Module 4	8/17 - 8/23	ANOVAs, repeated measures ANOVA, factorial ANOVA	HW 5 Reading check 4 assigned	Chapter 9, 11
Module 5	8/22 - 8/28	Correlations, choosing the right test, final review, SPSS crash course	HW 6, FINAL Reading check 5 assigned, all reading checks due by the end of the quarter	Chapter 12

Research Participation – The Psychology Department provides an opportunity for students in this course to gain extra credit by participating in psychology research projects (surveys or experiments) for **three (3) hours**, or by completing an alternative assignment (see below).

Follow these easy steps to sign-up for research projects:

- 1) Go to the Sona website at https://ucsc.sona-systems.com
- 2) If you are enrolled in the class at the start of the quarter, then an account should already be created for you. To log in for the first time, click "Forgot Password?" to retrieve the pre-set password. For those who added the class late, or for some reason the system won't let you log in, you may need to click "Request Account." Only request a new account if the "Forgot Password" link isn't working.
- 3) Always enter your UCSC email address. You will receive your password via email.
- 4) Log in and follow the instructions to complete the <u>Prescreening Questionnaire</u>. Your responses on this questionnaire will determine your eligibility for different studies.

IMPORTANT: You can earn research credits points by either participating in studies (in-lab experiments or online surveys) or writing papers (the alternative assignment). Studies are posted throughout the quarter. Plan ahead and complete them as soon as possible. Check online often for new studies. If you know you cannot make it, and if the time until the study is more than 24 hours, you can cancel on Sona. If you fail to show up for a study, or fail to cancel in time, you will be marked as having an "unexcused no-show." If you accumulate three unexcused no-shows you will be prevented from signing up for more experiments. All participation must be completed by 5pm on the Friday of the last week of instruction (**DATE**). Do not wait until the last week to sign up.

What if you can't find studies? Although some studies may be available right at the start of the quarter, there may not be enough for everyone. Please be patient, researchers will post new studies throughout the quarter. There is usually a big spike in hours during the last couple weeks. If you are concerned about the availability of hours, please don't email your instructors or TAs, instead email the pool administrator so that they can try to address the issue directly (ucscresearchpool@gmail.com). This is also the best email to use if other issues arise during the quarter. If you participated in a study but didn't receive credit after two days, please start by emailing the researchers directly. If the researchers don't respond then send an email to the pool administrator. Rest assured, however, that all pending timeslots will be given credit at the end of the quarter before a report is sent to your professor.

Alternative assignment: If you prefer to not participate in research projects (or if you are under the age of 18) you may substitute two (2) papers (1.5% extra credit each), each critically evaluating a psychology research article. If you are doing the alternative written assignments, they must be emailed directly to your instructor or TA by the last day of instruction. If you have any questions or concerns please contact the research pool administrator at ucscresearchpool@gmail.com. Please note that plagiarized papers will result in a No Pass.

Each paper should be 1.5-2 pages (double spaced, 12-point, times new roman) and critically evaluate a psychology research article (addressing the questions shown below). You will need to

find articles published in 2018, 2019, or 2020 in one of the following journals: (a) Psychological Science; (b) Psychonomic Bulletin & Review; (c) Memory; (d) Memory and Cognition.

- 1) What were the basic questions or hypotheses under investigation?
- 2) How did the researchers test their hypotheses?
- 3) What did the researchers find and how were these findings interpreted?
- 4) Are you convinced? Why or why not? Explain.

DRC Remote Accommodations:

The Disability Resources Center reduces barriers to inclusion and full participation for students with disabilities by providing support to individually determine reasonable academic accommodations. Operations continue via remote appointments. If you have questions or concerns about exam accommodations or any other disability-related matter, email the DRC Schedulers at dre@ucsc.edu for an appointment.

Small Group Tutoring

Small Group Tutoring (SGT) supports students academically to advance educational equity by designing inclusive learning environments outside of the classroom. In SGT, you can expect the Tutor to facilitate cooperative group activities designed to have students work together on the course content and develop study skills for the course. SGT is offered at least three times each week for the entire quarter. The Tutor is an undergraduate student who took the class, did well, and is trained to facilitate group sessions to focus on students' needs to succeed in the course. SGT is open to all students enrolled in the class and they must sign up on our online system: TutorTrac. When students sign up for SGT, they are committing to attend every week. For Summer 2020, students can begin signing up for tutoring on **Monday**, **June 22rd** and tutoring will begin **Wednesday**, **June 24th**. Students only have to sign up once for tutoring and their appointments will repeat weekly. Sign-ups will close on **Friday**, **August 14th** for all Summer Session Sign-Ups. This means that after **August 14th**, no new students can sign up for tutoring.

Want SGT to be successful for you? Bring your books, lecture notes, questions, and be open to working collaboratively with your peers. You can sign up using this link:

https://ucsc.go-redrock.com/tracweb40/NoAccess.4sp?errText=insufficient%20credentials%20to%20view%20content

You can also find the link on our website: https://lss.ucsc.edu/index.html

Academic Dishonesty

Academic integrity is the cornerstone of a university education. Academic dishonesty diminishes the university as an institution and all members of the university community. It tarnishes the value of a UCSC degree. All members of the UCSC community have an explicit responsibility to foster an environment of trust, honesty, fairness, respect, and responsibility. All members of the university community are expected to present as their original work only that which is truly their own. All members of the community are expected to report observed instances of cheating, plagiarism, and other forms of academic dishonesty in order to ensure that the integrity of scholarship is valued and preserved at UCSC.

In the event a student is found in violation of the UCSC Academic Integrity policy, he or she may face both academic sanctions imposed by the instructor of record and disciplinary sanctions imposed either by the provost of his or her college or the Academic Tribunal convened to hear the case. Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a student's transcript.

For the full policy and disciplinary procedures on academic dishonesty, students and instructors should refer to the <u>Academic Integrity page</u> at the Division of Undergraduate Education.

Title IX:

The university cherishes the free and open exchange of ideas and enlargement of knowledge. To maintain this freedom and openness requires objectivity, mutual trust, and confidence; it requires the absence of coercion, intimidation, or exploitation. The principal responsibility for maintaining these conditions must rest upon those members of the university community who exercise most authority and leadership: faculty, managers, and supervisors.

The university has therefore instituted a number of measures designed to protect its community from sex discrimination, sexual harassment, sexual violence, and other related prohibited conduct. <u>Information about the Title IX Office</u>, the <u>online reporting link</u>, applicable campus resources, reporting responsibilities, the <u>UC Policy on Sexual Violence and Sexual Harassment</u>, and the UC Santa Cruz Procedures for Reporting and Responding to Reports of Sexual Violence and Sexual Harassment can be found at <u>titleix.ucsc.edu</u>.

The Title IX Office is actively responding to reports and requests for consultation. If you are not currently working with someone in the office and want to make a report/request a consult, you can expect the fastest response by using our <u>online reporting link</u>.

For more information please visit the Title IX Operations under Covid-19 page.

Distribution of Lecture Notes and Materials:

Please note that students may be disciplined for selling, preparing, or distributing course lecture notes, including notes created independently by students. The unauthorized sale of lecture notes, handouts,

readers or other course materials is a violation of campus policies as well as state law. Violation by distribution to the public may also constitute copyright infringement subject to legal action.