

PSY302 STATISTICAL METHODS IN PSYCHOLOGY

Course Syllabus (CRN: [34662](#))



TR 10:00 – 11:20 AM

Lawrence Hall 115,

University of Oregon

COURSE DESCRIPTION

Research psychologists use statistics to investigate and reveal patterns in our thinking and behavior. In PSY301, you studied how psychologists measure and validate constructs, design experiments, and collect data. In this course, you will learn how they make sense of the data they collect by studying how psychological data is summarized and analyzed to draw conclusions about a population. This course will demystify statistics, transforming them from abstract formulas into powerful tools for answering real-world questions. You will develop your skills to think critically about how statistics are used (and misused) in research and everyday life. Through lecture, problem sets, and small graduate-student led labs, you will gain hands-on experience conducting descriptive and inferential analyses commonly used in psychology research, including data visualization, descriptive statistics, hypothesis testing, t-tests, analysis of variance tests (ANOVAs), correlation, and regression.

OFFICE HOURS

Instructor

Sarah Dimakis, Ph.D.

sdimakis@uoregon.edu

R 2 - 3PM & F 9 - 10AM

Straub 464

Lab Instructor

Mahboubeh Khoddam

mkhoddam@uoregon.edu

R 2 – 4PM

LISB 250

Lab Instructor

Zach Schroeder

zschroe2@uoregon.edu

M 12 – 2PM

[Zoom](#)

Lab Instructor

Fang Su

fangs@uoregon.edu

F 10AM - 12PM

Straub 331

Lab Instructor

Shijing Zhou

shijingz@uoregon.edu

M 1:30 – 3:30 PM

[Zoom](#)

GTF Tech Support

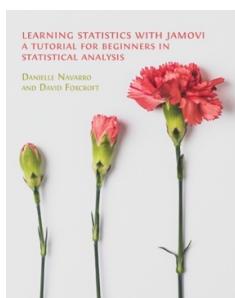
Andrew Zavala

azavala2@uoregon.edu

CONTACTING US

Please don't hesitate to contact your instructor or lab instructor if you have any questions or concerns. When you e-mail us, **please add PSY302 and your section in the subject line** (e.g., "PSY302 10am exam question"). You are welcome to drop in on any office hours that fit in your schedule. When you e-mail us, you can expect to receive a response within 2 business days, typically earlier. If we do not respond to your email within 2 business days, please resend it (making sure PSY302 is in the title) because we may have not received it.

COURSE MATERIALS



The textbook for the course is Navarro and Foxcroft, *Learning Statistics with Jamovi*. This is a **free textbook** that you can download or read [here](#). To get the most of lecture, I recommend reading the assigned readings *prior to the class they are associated with*. We will be using the free statistical software Jamovi, which you can download on your personal computer [here](#). This course uses **iClicker** for attendance and in-class polling. You can use either an iClicker remote or download the iClicker app on your mobile device or computer to participate. You can sign a physical sign-up sheet each class if you prefer to opt out of purchasing a subscription (or forget your iClicker). You will also need a hand-held **calculator** for class and exams (not your phone or computer) that can do basic functions (e.g., add, square root). You do not need a graphing calculator but can use one.



LEARNING OBJECTIVES

This course will help you develop skills that are valuable beyond university, such as critical thinking and effective communication. You will also be working to improve skills that are necessary to be a consumer and/or producer of research. Upon completion of this course, you will be able to (1) select and perform the correct statistical analyses on psychological data, either by hand (for basic statistics) or using a computer software program (2) explain fundamental statistical analyses and concepts in writing, and (3) understand the statistical analyses of others as presented in journals.

ESTIMATED STUDENT WORKLOAD

Upon completion of this course, you will earn 4 credits toward your degree. A four-credit course from the University of Oregon is equivalent to 120 hours of work across the term, or 12 hours per week for 10 weeks. You will spend about 40 hours in class and lab (4 hours a week), about 30 hours completing weekly homework assignments (3 hours a week), about 20 hours reading or watching supplemental material (2 hours a week), and the remaining 30 hours studying for exams.

COURSE MODALITY

This is an in-person course. Unlike asynchronous online/ASYNC WEB courses, we will meet during scheduled class meeting times in *Lawrence Hall 115*, which is located near the cross section of University St. and Franklin Blvd. You will meet during scheduled lab meeting times in *Straub 006*. I will accommodate absences as described in the Participation section below. If you need additional flexibility, UO encourages you to consider ASYNC WEB courses. If you need accommodation related to a medical or other disability, you can request those by working with the Accessible Education Center.

TECHNICAL REQUIREMENTS

Information and communication outside of class time will occur on our Canvas page. To access our course Canvas site, log into [Canvas](#) using your DuckID. If you have questions about using Canvas, visit [the Canvas support page](#). Canvas and Technology Support also is available by phone (541-346-4357) or by [live chat on the Live Help webpage](#).

ASSESSMENTS & GRADING

Your learning will be assessed through multiple choice and free-response exams (50% of your grade), computational HW (25% of your grade), Jamovi HW (20% of your grade), and participation in in-class lecture polls (5% of your grade).

Assignment	Grade Weight
Exams (x3)	50%
Computational HW	25%
Jamovi HW	20%
Participation	5%

The following grid provides the letter grade associated with each percent. If you are within .5% of a grade category, your grade will be rounded up if you have 100% in the Participation grade category. A student may be assigned an “A+” for a final grade if they demonstrate exemplary understanding of the course material across all assessments (> 97% on all four grade categories).

A 93-100%	B 83-86.99%	C 73-76.99%	D 63-66.99%
A- 90-92.99%	B- 80-82.99%	C- 70-72.99%	D- 60-62.99%
B+ 87-89.99%	C+ 77-79.99%	D+ 67-69.99%	F 59.99% or below

EXAMS

There will be two in-class midterm exams and a final exam. Each midterm (15% of your grade) and final exam (20% of your grade) focuses on material from the given unit but is inherently cumulative (concepts learned in previous units will carry on). Each exam has 25 multiple choice questions and 5 short answer questions that may ask you to explain or recognize concepts, compute statistics, or interpret Jamovi output. You may bring a 3" by 5" notecard with handwritten or typed notes to use during the exam (front and back) and headphones if you want to listen to music or sounds. Blank notecards will be provided in class the week before each exam, or you are welcome to use your own. You will also be given a formula sheet on each exam. A study guide will be posted at least one week before each exam, which will contain all topics that could be on the exam. To review a graded exam, please notify the instructor or GTF at least two days prior to the office hours when you plan to review it.

COMPUTATIONAL HW

You will have weekly Canvas quizzes due throughout the term, which contain conceptual questions and by-hand computational questions from the week. The quizzes are untimed, and you can take each quiz up to three times. You will be awarded the score of your best attempt. The numbers and questions will change each time you take it, which will give you extra practice. I encourage you to take each quiz at least twice, even if you receive a score you are happy with the first time for the added practice! Before making a new attempt, figure out which answers were wrong and why. The late penalty applies to your last attempt. The computational HW quizzes are due **Sundays at 11:59pm**.

JAMOVI HW

You will also have weekly Canvas quizzes due throughout the term, which contain questions about the data analysis you produce in lab with the statistical software Jamovi. If you are unable to attend lab that week, you should be able to complete the homework by reading the lab handout. The quizzes are untimed, and you have TWO attempts, so submit again if you get any automatic graded answers wrong! The Jamovi HW quizzes are due **Sundays at 11:59pm**.

PARTICIPATION & ABSENCES

Attendance will be tracked via iClicker responses in lecture (there is no attendance credit for labs). [Prior to week 2, you'll need to \(1\) make an iClicker student account, \(2\) add our class, \(3\) and, if you have a physical remote, add your remote ID in your “profile.”](#) You can use either an iClicker remote or download the [iClicker app](#) on your mobile device or computer to participate. Your grade will be based on the percent of classes you participate in, not on the accuracy of your responses. If you'd like to opt out of purchasing an iClicker subscription, you can sign a physical sign-up sheet to receive attendance credit. **You may miss 3 classes without penalty.** Missing classes due to a religious observance, specific AEC accommodation, military deployment, or a University-sponsored event with signed documentation do not count toward your three absences. Difficult or complex situations that impact attendance will occur for many of us during a term. This **reason-neutral** policy means that absences are available both for students who *do* want to reach out about their experiences and students who *do not*. If you are feeling ill, please stay home and use one of your three absences. Please note that **I cannot excuse your absence if you e-mail me a reason outside of these listed reasons**, since you are asking me to ignore university policy.

CLASSROOM COMMUNITY EXPECTATIONS

It's imperative to a healthy learning environment that we treat each other with respect and commit to learning from each other. This requires us (1) to refrain from passing judgment on others (and ourselves) for making mistakes or not yet knowing something, (2) to be cognizant of how much we are speaking and adjust accordingly to allow the class to hear from different perspectives, and (3) to disagree with others respectfully by providing empirical or experiential evidence rather than attacking their character. Additionally, please reserve the seats by the door for students who need to enter late or exit early. Continued enrollment in the course indicates agreement that you will enthusiastically abide by these guidelines.

ACCESS & ACCOMMODATIONS

The University of Oregon and I are dedicated to fostering inclusive, equitable, and accessible learning environments for all students. The [Accessible Education Center](#) (AEC) assists students with disabilities in reducing barriers in the educational experience. You may be eligible for accommodations for a variety of disabilities – apparent disabilities, such as a mobility or physical disability, or non-apparent disabilities, such as chronic illnesses or psychological disabilities. If you have or think you have a disability and experience academic barriers, please contact the Accessible Education Center (Location: 360 Oregon Hall; 541-346-1155; uoaec@uoregon.edu) to discuss appropriate accommodations or support. The details of your disability will be kept confidential with the AEC and you are not expected to share this information with others. However, I invite you to discuss any approved accommodations or access needs at any time with me.

LATE WORK & MAKE-UP EXAMS

To make it easy to remember, assignments in this course are always due on **Sundays at 11:59pm**. In the case that you fall ill or otherwise cannot complete your work on time, I have built flexibility into the course in the following ways:

- All students have one free, no-questions-asked extension to turn in an assignment late **for any reason**, no questions asked. If you wish to use your extension, *comment on the assignment "I am using my one free extension"* when you submit it to Canvas. No need to e-mail me that you're using your extension unless you can't figure out how to comment on the assignment!
- If an assignment is turned in **more than 24 hours** after the due date, the assignment will be marked off 5% (max score is now 95%). If 48 hours has passed, the assignment will be marked off 10% (max score is now 90%). Anything after 72 hours will receive the max late penalty of 15% off (max score is now 85%). Note that the last day to turn in late work for partial credit is the last day of Week 10 (**Friday, June 6th at 5pm**).

If you need to miss an exam, you can sign up to take a make-up exam via the link on Canvas. Please only sign up for one *if you really need one (e.g., illness, family emergency)*, as spots are limited and first come/first serve!

ACCOMMODATIONS FOR RELIGIOUS OBSERVANCES

The University of Oregon respects the right of all students to observe their religious holidays, and will make reasonable accommodations, upon request, for these observances. If you need to be absent from a class period this term because of a religious obligation or observance, please fill out the [Student Religious Accommodation Request fillable PDF form](#) and send it to me within the first weeks of the course so we can make arrangements in advance.

ARTIFICIAL INTELLIGENCE USE

You are permitted to use AI tools (e.g., ChatGPT) to help you understand why you got a problem wrong. However, keep in mind that AI can and often does provide inaccurate or overly simplistic responses, and you are responsible for the accuracy and quality of the work that you submit. Learning when and how to use AI effectively is an important skill that I encourage you to start practicing, but if you choose to use these tools, then **they must not prevent you from achieving the learning goals of the course**. You cannot use AI on your tests, and improper use will only get you so far. Relying on AI to think for you – such as copying an answer directly from ChatGPT and submitting it as your own -- will hinder your learning and therefore is considered a violation of our academic integrity policy.

ACADEMIC INTEGRITY

Any form of academic dishonesty, including getting outside help on assignments, plagiarizing of any kind, improper use of AI (as outlined in the policy above), or lying to the instructor or a GTF will not be tolerated in this class. You are permitted (and encouraged) to work and study with other students on class assignments, but the work you submit *must be your own* and therefore should not be a direct copy of another student's work. If you have questions about what is considered academic dishonesty for this course, or if you are struggling with your coursework to the point that you feel you have no choice but to violate academic integrity, please reach out to the instructor, the AEC, and/or the dean of students. If I detect any academic dishonesty, I must follow the procedure to handle misconduct as outlined by the University, meaning that instances of suspected cheating or plagiarizing will be reported to the University.

INTERESTED IN GRADUATE SCHOOL IN PSYCHOLOGY?

Please don't hesitate to come to office hours if you'd like to talk to me about graduate school in psychology. I am a recent (Summer 2024) graduate of UO's PhD program in Social Psychology and am always happy to share my experience. I can't speak too much to graduate school in mental health fields (more so to research psychology), but I do know the basics and can connect you with resources.

YOUR WELLBEING

During your college experience, you may feel overwhelmed or stressed, experience anxiety or depression, struggle with relationships, or just need help navigating challenges in your life. If you're facing such challenges, you don't need to handle them on your own--there's help and support on campus. [University Health Services](#) helps students cope with difficult emotions and life stressors. If you need general resources on coping with stress or want to talk with another student who has been in the same place as you, visit the Duck Nest (located in the EMU on the ground floor) and get help from one of the specially trained Peer Wellness Advocates. University Counseling Services (UCS) has a team of dedicated staff members to support you with your concerns, many of whom can provide identity-based support. All clinical services are free and confidential. Find out more at [counseling.uoregon.edu](#) or by calling 541-346-3227 (anytime UCS is closed, the After-Hours Support and Crisis Line is available by calling this same number).

BASIC NEEDS

Being able to meet your basic needs is foundational to your success as a student. If you are having difficulty affording food, don't have a stable, safe place to live, or are struggling to meet another need, visit the [UO Basic Needs Resource](#) page for information on how to get support. They have information food, housing, healthcare, childcare, transportation, technology, finances (including emergency funds), and legal support. If your need is urgent, please contact the Care and Advocacy Program by calling 541-346-3216, filling out the [Community Care and Support form](#), or by [scheduling an appointment](#) with an advocate.

ACADEMIC DISRUPTION DUE TO CAMPUS EMERGENCY

In the event of a campus emergency that disrupts academic activities, course requirements, deadlines, and grading percentages are subject to change. Information about changes in this course will be communicated as soon as possible by email, and on Canvas. If we are not able to meet face-to-face, students should immediately log onto Canvas and read any announcements and/or access alternative assignments. Students are also expected to continue coursework as outlined in this syllabus or other instructions on Canvas.

INCLEMENT WEATHER

It is generally expected that class will meet unless the University is officially closed for inclement weather. If it becomes necessary to cancel class while the University remains open, this will be announced on Canvas and by email. Updates on inclement weather and closure are also communicated as described on the [Inclement Weather](#) webpage.

REPORTING OBLIGATIONS

I am a designated reporter. For information about my reporting obligations as an employee, please see [Employee Reporting Obligations](#) on the Office of Investigations and Civil Rights Compliance (OICRC) website. Students experiencing sex- or gender-based discrimination, harassment or violence should call the 24-7 hotline 541-346-SAFE [7244] or visit [safe.uoregon.edu](#) for help. Students experiencing all forms of prohibited discrimination or harassment may contact the Dean of Students Office at 541-346-3216 or the non-confidential Title IX Coordinator/OICRC at 541-346-3123 to request information and resources. Students are not required to participate in an investigation to receive support, including requesting academic supportive measures. Additional resources are available at [investigations.uoregon.edu/how-get-support](#). I am also a mandatory reporter of child abuse. Please find more information at [Mandatory Reporting of Child Abuse and Neglect](#).

PSY302 STATISTICAL METHODS IN PSYCHOLOGY

Spring 2025 Course Schedule

WEEK	DATE	LECTURE TOPIC	READING	LAB TOPIC	DUE SUNDAY 11:59PM
1	T 4/1	Course Introduction	Syllabus	Introduction to Jamovi	Register your iClicker ; Jamovi HW1; Computational HW1
	R 4/3	Data Visualization	Chapter 1 & 5		
2	T 4/8	Descriptive Statistics	Chapter 4	Descriptive Statistics & Z-Scores	Jamovi HW2; Computational HW2
	R 4/10	Probability & Z-Scores	Chapter 7		
3	T 4/15	Sampling & Confidence	Chapter 8	One-Sample Z-Test & Exam 1 Review	Jamovi HW3; Computational HW3
	R 4/17	Hypothesis Testing	Chapter 9 & 11.1		
4	T 4/22	Exam 1		One-Sample T-Test	Jamovi HW4; Computational HW4
	R 4/24	One sample t-test	Chapter 11.2		
5	T 4/29	Independent sample t-test	Chapter 11.3 & 11.4	Two-Sample T-Tests	Jamovi HW5; Computational HW5
	R 5/1	Paired sample t-test	Chapter 11.6		
6	T 5/6	Correlation	Chapter 12.1 & 12.2	Correlation & Regression	Jamovi HW6; Computational HW6
	R 5/8	Regression	Chapter 12.3 – 12.8		
7	T 5/13	Exam 2 Review		NO LAB	NO HW
	R 5/15	Exam 2			
8	T 5/20	One-Way ANOVA	Chapter 13.1 - 13.6	One-Way ANOVAs	Jamovi HW7; Computational HW7
	R 5/22	Repeated Measures ANOVA	Chapter 13.7 & 13.9		
9	T 5/27	Factorial ANOVA	Chapter 14.1 - 14.4 & 14.8	Two-Way ANOVA	Jamovi HW8; Computational HW8
	R 5/29	Factorial ANOVA			
10	T 6/3	Misusing Statistics	Simmons et al. (2011)	NO LAB	NO HW
	R 6/5	Exam 3 Review			
Finals	Wednesday, June 11, 2025, 8:00 a.m.				Exam 3