



## Master Course Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: <https://catalog.uvu.edu/>

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**Semester:** Spring

**Year:** 2025

**Course Prefix:** PSY

**Course and Section #:** 3110 – 002

**Course Title:** Statistics for the Behavioral Sciences

**Credits:** 4

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### ***Course Description***

The main objective of this course is to provide an introduction to the statistical methods commonly used in psychology research. Topics that will be covered include: central tendency, variability, probability and sampling, hypothesis testing, t-tests and analysis of variance, correlation, regression, and chi-square tests. As we cover these topics, you will also learn to analyze statistics via a commonly used free statistical software package (Jamovi), with a focus on interpreting and reporting statistical results.

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### ***Course Attributes***

This course has the following attributes:

- General Education Requirements
- Global/Intercultural Graduation Requirements
- Writing Enriched Graduation Requirements
- Discipline Core Requirements in Program
- Elective Core Requirements in Program
- Open Elective

Other: *Click here to enter text.*

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### ***Instructor Information***

**Instructor Name:** Cameron Hopkin

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### ***Student Learning Outcomes***

- Interpret statistics found in newspapers, magazines, and academic research papers
  - Integrate statistical practice into behavioral science research
  - Conduct a statistical analysis in academic settings or other settings
  - Apply statistical theory to behavioral science research.
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### ***Course Materials and Texts***

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- Aron, A., Aron, E.N., Coups, E.J., & Cooley, E. (2022). *Statistics for psychology* (7th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Basic scientific calculator. You'll need to bring this to all class meetings.
- Free statistical software *Jamovi*. Please bring a laptop to class to work through guided tutorials. If you do not have a laptop, one can be checked out from the UVU library for the entirety of the semester.

## ***Course Requirements***

### **Course Assignments, Assessments, and Grading Policy**

#### **Grading Scale:**

The following grading standards will be used in this class:

<b>Grade</b>	<b>Percent</b>
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66

Grade	Percent
D-	60-62
E	0-59

### Assignment Category Weights

Activity	Percent of Total Grade
Homework	20 %
Attendance & Participation	10 %
Labs & Exercises	10 %
Final Paper	20 %
Exams	40 %

### Late Work Statement:

**Do your work on time. You will not be allowed to take exams past the deadline.** The only exception to this policy is for university excused absences. **Labs & exercises** are intended to be completed in class and will not be accepted late. You may work on **homework** after the due date, but you will only receive 70% of the credit for any late homework problems. For the **final paper**, you will lose 10% of the total score each day it is late, and there are no extensions beyond the last day of the semester. You are always welcome to turn in assignments in advance. If a conflict or emergency arises, I will consider the situation on a case by case basis. You will need to contact me as soon as possible (before the assignment is due) upon learning of a conflict or emergency so arrangements can be made concerning the assignment's due date.

### Assignment and Assessment Descriptions

## Assignments:

This is a summary of your assignments for this course. All due dates are clearly marked in Canvas. Check the assignment descriptions in the modules if you're not sure of when something is due.

Homework: Each chapter's homework assignment can be found in that week's module. These assignments will be discussed in greater depth in class.

Attendance & Participation: This class is designed to be a "hands-on" learning experience that requires full participation in order to accomplish the objectives. For this to work, you must come prepared to participate (i.e., ask questions, answer questions, discuss concepts, work through problems, etc.) to every class session. You begin the semester with full points in this category; you lose them by a) never participating in class discussion or b) excessive absences. Be in class, answer when I call on you (even if the answer is "I don't know," which is always acceptable), and speak up when you're not clear on what we're discussing. I try to make class a friendly place for everyone so this isn't too much of a burden, even for those who struggle with social anxiety. If you have excessive difficulties speaking in class, please come talk to me and we'll work something out.

Labs & Exercises: These are in-class exercises that we will all complete together. They are intended to solidify your understanding of class concepts and (in the case of the Jamovi exercises) will be extremely useful when preparing your final paper. Be present, pay attention, and upload your completed lab/exercise, and you'll get these points easily.

Final Paper: Throughout the course, we will spend several days learning how to analyze and interpret psychological data. You will learn how to conduct the statistical techniques covered in class using a statistical software package (Jamovi), and you will write up the results. These findings should be reported using the conventions of APA style, and the paper should contain the following: (1) statement of research hypotheses, (2) descriptive statistics, (3) appropriate inferential statistics, (4) an interpretation of the results, (5) at least one table or figure, and (6) your Jamovi output. A detailed grading rubric will be available on Canvas well in advance of the due date.

Exams: There will be **four exams** administered during this course, which will involve answering multiple choice, short-answer questions, and solving a series of statistical problems. The fourth exam will not be cumulative in nature. Please keep in mind that although the exams are not outright cumulative, much of the material covered in the class will be built upon previously examined topics. Exams are administered on Canvas and monitored by Proctorio. As such, you need to have both **a working microphone and a working webcam** to take all exams, so get that set up ahead of time. You will need your calculator for all exams. Proctorio will not flag you for calculator use, **but phone use is prohibited**. You will need to upload your calculation notes to a separate assignment for each test in order to get full credit for short answer and calculation problems; I will announce a window for corrections for calculation problems after each test has been graded. Sending me (via email) your corrections will allow you to earn half points back on any deductions.

## Required or Recommended Reading Assignments

Weekly chapter readings from the Aron, Aron, & Coups textbook

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### General Description of the Subject Matter of Each Lecture or Discussion

<u>Week # and Dates</u>	<u>Tuesday</u>	<u>Thursday</u>	<u>Friday</u>
Week 1 Jan 6-12	<b>Introduction to Statistics; Data</b> Chapter 1	<b>Central Tendency &amp; Variability</b> Chapter 2	Homework review Ch. 1 Lab 1
Week 2 Jan 13-19	<b>Z-scores &amp; the Normal Distribution</b> Chapter 3	<b>Sampling &amp; Probability</b>	Homework review Ch. 3 Lab 2
Week 3 Jan 20-26	<b>Sampling &amp; Probability, cont'd.</b>	<b>Catch-up/review</b> Exam 1 opens	Lab 3 Jamovi exercise 1
Week 4 Jan 27 - Feb 2	<b>Hypothesis Testing</b> Chapter 4	<b>Significance Testing</b>	Homework review Ch. 4 Jamovi exercise 2
Week 5 Feb 3-9	<b>z-test</b> Chapter 5	<b>Confidence Intervals &amp; Standard Error</b>	Homework review Ch. 5 Lab 4

Week 6 Feb 10-16	<b>Effect Size</b> Chapter 6	<b>Statistical Power</b> Exam 2 opens	Homework review Ch. 6 Jamovi exercise 3
Week 7 Feb 17-23	<b>One-Sample t-test</b> Chapter 7	<b>Dependent Samples t-test</b>	Homework review Ch. 7
Week 8 Feb 24 - Mar 2	<b>Independent Samples t-test</b> Chapter 8	<b>Independent Samples t-test, cont'd.</b>	Homework review Ch. 8 Jamovi exercise 4
Week 9 Mar 3-9	<b>Chi-Square Goodness of Fit Test</b> Chapter 13	<b>Chi-Square Test for Independence</b> Exam 3 opens	Homework review Ch.13 Lab 6
Week 10 Mar 10-16	<b>NO CLASS -- Spring Break</b>	<b>NO CLASS -- Spring Break</b>	<b>NO CLASS -- Spring Bre</b>
Week 11 Mar 17-23	<b>Final Paper Introduction</b>	<b>Logic of Analysis of Variance</b> Chapter 9	<b>TBD</b>
Week 12 Mar 23-30	<b>Hypothesis Testing in ANOVA</b>	<b>Power &amp; Effect Size in ANOVA</b>	Homework review Ch. 9

Week 13 Mar 31 - Apr 6	<b>Factorial ANOVA</b> Chapter 10	<b>Catch-up/review</b>	Homework review Ch. 1 Jamovi exercise 5
Week 14 Apr 7-13	<b>Correlation</b> Chapter 11	<b>Regression</b> Chapter 12	Homework review Ch. 1 Lab 7
Week 15 Apr 14-20	<b>Multiple Regression</b>	Homework review Ch. 12 <b>In-Class Paper Consultations</b>	Jamovi exercise 6
Week 16 Apr 21-23	<b>In-Class Paper Consultations</b>	<b>NO CLASS - FINALS WEEK</b>	<b>NO CLASS - FINALS WEEK</b> Exam 4 must be finished PM

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## ***Required Course Syllabus Statements***

### **Generative AI**

#### **Academic Integrity & the Use of Generative AI Tools**

As explained in UVU's [Student Rights and Accountabilities](#) [Links to an external site.](#) page, all students are expected "to maintain absolute integrity and high standards of individual honesty in academic work, and to observe a high standard of conduct for the academic environment." Under such expectations, UVU views plagiarism as a serious offense that does not align with the university's mission and values. Our expectation is that every student's work will be their own and use outside sources in a manner that consistently gives proper credit to those sources through established academic conventions.

Plagiarism has occurred if you:

- Use the exact wording of another author or source in such a manner that it appears to be your own, regardless of the form in which those words originally appeared (e.g., a book, article, lecture, web site, speech, graphic, or any other form such as an AI text generator)

- Paraphrase (put into your own words) another author's wording in a manner where the language and/or syntax is too similar to the original passage and is not properly cited
- Fail to clearly acknowledge the partial or full authorship of someone else when submitting work
- Fail to cite or quote textual resources properly, despite the instructor's attempts at educational intervention
- Fabricate false information that is not corroborated by the actual research used on a writing project
- Have someone else, paid or otherwise, write your paper or use a paper mill site that contains ready-to-use papers written by other people
- Generate and submit a paper using artificial intelligence, such as ChatGPT

While the above actions can happen with intentionality to deceive, plagiarism can also happen accidentally (due to careless resource use, not using proper citation methods, and not understanding the conventions of our chosen style guide). Though intentional vs accidental is often a judgment call for an instructor, it's important to note that accidental plagiarism is still plagiarism—a serious need to address the incident arises regardless. Though the resulting consequences may vary based on the degree of intentionality, any form of plagiarism will be addressed with equal seriousness.

UVU is also keeping up with artificial intelligence chat bots such as ChatGPT. Believing the technology is here to stay, and will only grow, we feel it's important to understand both its strengths and limitations. AI is already proving its usefulness in brainstorming writing ideas, simplifying complex topics, and performing rudimentary research. We believe AI is a tool with potential usefulness for writers. However, AI is also fraught with serious issues. It possesses accuracy problems while simultaneously sounding very confident about its incorrectness. It also frequently generates fake citations and quotations. It cannot understand the complexities and contexts of human communication. Finally, the way AI is trained on other texts poses several ethical questions about copyright and intellectual theft of property (along with uncritically inheriting the biases of the texts it's trained on).

To be clear, **copying the exact wording of an AI chatbot is considered plagiarism and means that a student will be held accountable for violating academic integrity.** Although many citation guides are already presenting ways to properly use and cite AI, we do not currently believe that citing AI in your work is in line with the standards of academic writing that value knowing the exact author(s) or sources that informed your writing.

If you are suspected of plagiarism, the first step will always be a conversation with your instructor (in-person or via Teams). If the infraction is very minor or clearly unintentional, there may be no sanctions at all. However, a lowered grade and/or the chance to revise the paper may also be possible. In more serious cases, the assignment may receive an automatic zero.

The most serious infractions may lead to your instructor filing an incident report with the Student Conduct office. In this scenario, you have the right to appeal the report with the department chair. Regardless of the chair's decision, the incident report remains a part of your permanent record. If you are unhappy with the chair's ruling, you then have the right to file an appeal with the Dean. The Dean's decision on the matter will be final.



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## Using Remote Testing Software

This course does not use remote testing software.

This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

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## *Required University Syllabus Statements*

### **Accommodations/Students with Disabilities**

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU [Accessibility Services](#) at [accessibilityservices@uvu.edu](mailto:accessibilityservices@uvu.edu) or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at [DHHservices@uvu.edu](mailto:DHHservices@uvu.edu)

DHH is located on the Orem Campus in BA 112.

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### **Academic Integrity**

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their [rights and responsibilities](#). In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in [UVU Policy 541: Student Code of Conduct](#).

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## **Equity and Title IX**

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – [TitleIX@uvu.edu](mailto:TitleIX@uvu.edu) – 800 W University Pkwy, Orem, 84058, Suite BA 203.

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### **Religious Accommodation**

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at [accessibilityservices@uvu.edu](mailto:accessibilityservices@uvu.edu). If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.