

## Psychology 300-01 & 301-1 – Psychological Research & Statistical Methods I

Fall 2023

**Professor:** Dr. Peter A. Krause ([peter.krause066@csuci.edu](mailto:peter.krause066@csuci.edu))  
**Office Hour:** Tu-Th 1:30-3:00 PM, Madera 1631  
& concurrently at <https://csuci.zoom.us/j/3028045588>  
**Lecture:** Asynchronous  
Posted to Course Canvas by 9AM Tuesdays  
**Lab:** Wed 6-8:50 PM at <https://csuci.zoom.us/j/89226868101>

### OVERVIEW AND AIMS

#### Catalog Description:

Hours: Three hours lecture and three hours lab per week

Prerequisite: PSY 100, MATH 200, PSY 202, or PSY 303 with a grade of C or better; and Consent of the instructor.

Description: PSY 300 and 300L is a required course for Psychology majors. This course provides introduction to research methodology and statistical concepts as well as their applications in social and behavioral science research. It includes both lecture presentations and lab sessions.

#### Learning Outcomes:

- Students who complete this course can articulate the basic tenets of the empirical method in psychology.
- Students will be able to verbalize basic statistical concepts and techniques, including when to use and when not to use different types of statistical procedures. Also, students will be able to describe the assumptions and explain the limitations underlying the different methods.
- Students will be able to read, understand, and critically review and evaluate research reports published in psychological journals on the basis of their validity (e.g., construct, internal, external, statistical) and conformity to the ethical principles for psychologists as defined by the American Psychological Association (APA).
- Students will be able to apply the experimental method to answer questions about behavior through participation in laboratory exercises and experiments.
- Students will be able to develop necessary skills for an efficient review of the psychological literature using a computerized index (e.g., PsycINFO; PubMed/MEDLINE).
- 6. Students will be able to design and conduct a well-controlled experiment.
- Students will be able to apply their knowledge to determine the appropriate statistical technique for use with specific research questions (i.e., match design and analysis to study aims).
- Students will be able to utilize basic statistical software, such as SPSS, for data analysis.
- Students will be able to interpret information from computer printouts.
- Students will be able to present findings and write up a research report according to the stylistic conventions of the American Psychological Association (APA).

## TEXTBOOK AND MATERIALS

### Textbook:

Research Methods and Statistics: A Critical Thinking Approach (5<sup>th</sup> Edition), by Sherri L. Jackson

Publication Manual of the American Psychological Association (7<sup>th</sup> Edition)

### Required Software:

SPSS v.29 (IBM)

You **must** obtain a copy of SPSS to use for the course. (It will also be required for PSY301.) To install, you may go to the following link: [https://csuci-my.sharepoint.com/:f:/g/personal/hai\\_le\\_csuci\\_edu/EpdP\\_z9nTdMk8mU7OGJ2IsBwmxQGgkLQR1TbJaHG2HnYg?e=cFnVsV](https://csuci-my.sharepoint.com/:f:/g/personal/hai_le_csuci_edu/EpdP_z9nTdMk8mU7OGJ2IsBwmxQGgkLQR1TbJaHG2HnYg?e=cFnVsV)

Get the .exe file (Windows) or the .dmg or .pkg file (Mac). Install as “Authorized User.”  
Activate using the following authorization code: [5345d49415a046cf9710](https://csuci-my.sharepoint.com/:f:/g/personal/hai_le_csuci_edu/EpdP_z9nTdMk8mU7OGJ2IsBwmxQGgkLQR1TbJaHG2HnYg?e=cFnVsV)

### Lecture Slides:

Each week, the asynchronous lecture will be broken into 1-5 mini-lectures organized by topic. The mini-lectures for the week will be posted to the Course Canvas by 9AM on Tuesday. I will post lectures with my commentary as embedded YouTube videos, included as part of the weekly module. Note that if accessibility is a concern, you can turn the closed captions on for these videos. I will also post an abbreviated form of each lecture (sans audio) as a PDF file. The slides are also linked from the weekly module. Each lecture module will also include a series of concept check quizzes. These quizzes can be taken as many times as necessary, but must be completed prior to moving on with the module. Completion of these quizzes is worth a small amount of credit (see **Grading**).

### Canvas:

This course uses a Canvas portal for announcements, resources such as homework readings and lecture slides, and grade reporting. If you have difficulty accessing the Canvas portal, please let me know immediately.

## EVALUATION

### Breakdown:

Exams (2)		30% total
Midterm	20%	
Final	10%	
Research Manuscript		20%
Final Group Presentation		10%
Preliminary Paper Sections		8% total
Method	2%	
Introduction	2%	

Results	2%
Discussion	2%
Laboratory Worksheets (8)	8%
Correlational Study Implementation	5%
Laboratory Meeting Attendance	5%
Module Progress Quizzes	3%
One-on-One Meeting With Professor	3%
Annotated Bibliography	3%
CITI Certification	3%
Syllabus Quiz & Course Plan	1%
Learner Survey	1%
Extra Credit for workshopping research proposal and/or research manuscript at the WMC	
	1%
Extra Credit for participating in SONA studies, up to 3 hours	
	1%
Extra Credit for instructor evals	1% <b>if overall response rate exceeds 75%</b>

### Exams:

This course includes two exams (one midterm and one final). Because the second half of the course becomes more focused on completing the research project, the midterm covers more material and is more heavily weighted. Exams have a multiple-choice component and a written component. The multiple-choice component will be completed as an online Canvas quiz. **For the multiple-choice component, no reference materials are permitted.** To enforce this rule, the quiz uses a shuffled order for questions and responses, as well as a tight time limit. These multiple-choice quizzes must be taken on the same days they are posted (see schedule). The written component will be a take-home test. The written components are also Canvas quizzes, but allow numeric entry. They have no time limit and can be completed over a two-day period (see schedule). **For the written component, students may use any and all reference resources except for another human, and *must* use SPSS to complete some of the problems.**

### Research Manuscript:

Students will individually complete 10- to 12-page APA-style Research Manuscripts describing their research projects. This manuscript should make use of at least 10 peer-reviewed references. As mentioned below, the Research Manuscript should incorporate feedback from the Preliminary Paper Sections. A detailed rubric for the Research Manuscript appears in the course Canvas.

The research reported in the manuscript will be conducted in small groups. For this first semester, the study designs are fairly simple. All studies will be conducted as surveys or questionnaires, to be analyzed by either correlation or (for more ambitious students) partial correlation.

### Final Group Presentation:

In their research groups, students will create presentation slides summarizing their projects. They will orally present these slides to their laboratory sections over Zoom in the final week of instruction. The slides themselves must also be turned in to me.

### **Preliminary Paper Sections:**

At four points spaced throughout the semester, Students will individually turn in drafts of the Methods, Introduction, Results, and Discussion sections of their final paper (yes, Method will be completed before Introduction). Although drafts, these submissions will be written to criteria from detailed rubrics available in the course Canvas. Grading of these sections will *not* reflect perfect adherence to the rubric but will instead reflect whether the student has made a good-faith effort to complete the assignment. (The rubric guidelines *will* affect grading of the *final* paper, however.) I will provide detailed feedback on these submissions that should be incorporated into the final Research Manuscript. **If a student fails to incorporate feedback from draft sections into their final Manuscript, penalties to the final Manuscript grade will result.** This process should make the act of writing a paper feel collaborative and non-punitive. Responding well to my feedback should result in a final paper that is very strong and easy to assign a good grade!

### **Laboratory Worksheets:**

During many weeks, students will be required to complete worksheets related to laboratory work. These serve two purposes. Many of them provide a gradual scaffolding of the final research project, forcing students to carefully space out the time they spend on designing their study and reviewing the literature. Many of them also provide practice calculating the statistical tests learned throughout the course. The laboratory worksheets are implemented as Canvas quizzes, but they are not tests. They are untimed assignments. Because they are not actually tests, you *are* permitted to get assistance with laboratory worksheets from your embedded tutors and/or at the tutoring center.

### **Correlational Study Implementation**

Groups are responsible for setting up their own research projects. Depending on your needs, you may write these as paper surveys or as Qualtrics survey projects (I have a lot of experience helping with Qualtrics, and in many ways this provides the easiest way to get a lot of participation). I will provide ample in-lab assistance with project setup, and I'm also happy to help at meetings scheduled outside class time.

### **Laboratory Meeting Attendance**

Engagement with statistical practice, SPSS instruction, and group project participation are absolutely essential to passing this course. To that end, attendance at live laboratory meetings is required. Illness and other unexpected hardships are of course reasonable excuses to miss up to two meetings. If you are in danger of missing a meeting for one of these reasons, please reach out to me for attendance forgiveness *as soon as possible*.

### **Module Progress Quizzes**

Each lecture module will include a series of concept check quizzes. These quizzes can be taken as many times as necessary, but must be completed prior to moving on with the module

### **One-on-One Meeting with Professor Krause:**

You will be required to meet with me individually, either in person or over Zoom, sometime during the first six weeks of the course. These meetings will take place in my office or at my personal meeting ID: 302 804 5588 (<https://csuci.zoom.us/j/3028045588>). This meeting is

intended to help normalize the idea of office hours, to ensure that we know each other, and to give me the opportunity to evaluate your needs and concerns. **To get credit for this meeting, you must expect it to take at least 10 minutes, and you *must* prepare at least one question or conversation topic. Failure to come prepared to our meeting will result in no credit being granted.** The meeting requirement can be satisfied by appearing at my regular office hour. If my office hour does not fit your schedule, you may schedule an outside appointment using this booking tool:

<https://outlook.office.com/bookwithme/user/6a389d85ce9749c0b2aa28041ce326df@csuci.edu/meetingtype/SVRwCe7HMUGxuT6WGxi68g2?anonymous&ep=mCardFromTile>.

### **Annotated Bibliography:**

Students will complete a 1- to 2- page annotated bibliography in which they summarize 10 references to be used in their final Research Manuscript and describe the relevance of these references to the study they are pursuing.

### **CITI Certification:**

Students must complete the CITI training for conducting research with human participants. This is a short online course to be completed on the student's own time. The student must submit the final certification as proof of completion. Note that completion of this outside course is *required*!

### **Syllabus Quiz & Course Plan, Introductory Learner Survey:**

Prior to the second lecture, students will complete a short survey about who they are and what their learning needs are. Students will also complete a quiz about course policies, which also asks them to set intentions for how they will allocate time to studying for the course, and what study strategies they will use.

### **Extra Credit:**

Students may receive 1% extra credit if they provide documentation that they worked with the Writing and Multiliteracy Center on their Research Proposal and/or their Research Manuscript.

I will be placing this class in CSUCI's SONA participation pool. Students may receive up to 1% extra credit for participating in up to **three hours** of psychological research being conducted over SONA. SONA can be accessed at: <https://csuci.sona-systems.com/>. Your login id is the "stem" of your CSUCI email. If you are new to the system, a password will be generated early in the semester. Otherwise, your password is the same as in the past.

**All students** will receive 1% extra credit if **more than 75%** of the class completes their online instructor evaluation.

### **Final Letter Grades:**

97 - 100%	A+
93 - 96%	A
90 - 92%	A-
87 - 89%	B+
83 - 86%	B

80 - 82%	B-
77 - 79%	C+
<b>73 - 76%</b>	<b>C</b> Per Psych Dept. policy, this is the passing threshold! A C- <b>WON'T COUNT!</b>
70 - 72%	C-
67 - 69%	D+
60 - 66%	D
<60%	F

## **COURSE POLICIES**

### **Submission of Assignments:**

All course assignments are turned in electronically on Canvas.

I reserve the right to penalize late submissions by 10% for each day they are late, at my discretion. However, I am acutely aware of how difficult it has become, post-pandemic, to manage life responsibilities. If you reach out to me to ask for extensions, they will almost certainly be granted. **If you have allowed a due date to pass by, please do not let this deter you from reaching out after the fact.** The most important thing is that we connect and get on the same page.

### **Contingency Planning:**

If, due to instructor illness or other unforeseen circumstances, live Zoom labs become impractical during some weeks, asynchronous pre-recorded lab videos may be substituted.

### **Disability Accommodations:**

If you are a student with a disability requesting reasonable accommodations in this course, please visit Disability Accommodations and Support Services (DASS) located on the second floor of Arroyo Hall, or call 805-437-3331. All requests for reasonable accommodations require registration with DASS in advance of need. You can [apply for DASS services here](https://www.csuci.edu/dass/students/apply-for-services.htm): <https://www.csuci.edu/dass/students/apply-for-services.htm>. Faculty, students and DASS will work together regarding classroom accommodations. You are encouraged to discuss approved accommodations with your faculty.

### **Academic Dishonesty:**

By enrolling at CSU Channel Islands, students are responsible for upholding the University's policies and the Student Conduct Code. Academic integrity and scholarship are values of the institution that ensure respect for the academic reputation of the University, students, faculty, and staff. Cheating, plagiarism, submitting AI generated content as one's own work, unauthorized collaboration with another student, knowingly furnishing false information to the University, buying, selling or stealing any material for an examination, or substituting for another person may be considered violations of the Student Conduct Code (located at <http://www.csuci.edu/campuslife/student-conduct/academic-dishonesty.htm>). **If a student is found responsible for committing an act of academic dishonesty in this course, the student may receive academic penalties including a failing grade on an assignment or in the course, and a disciplinary referral will be made and submitted to the Dean of Students office.** For additional information, please see the faculty Academic Senate Policy on Academic Dishonesty,

also in the CI Catalog. Please ask about my expectations regarding academic dishonesty in this course if they are unclear.

There are many subtle forms of plagiarism that are nonetheless grounds for disciplinary action. Lifting individual sentences from a pre-existing document is plagiarism. Lifting individual sentences and strategically changing two or three words is *still plagiarism*. Whether you are citing the paper in question is of no consequence. **Direct lifting of text is *always plagiarism*, even if the source is cited.** As noted in the updated honesty statement above, submitting AI generated content as one's own work is also plagiarism, and for the moment tools exist to sniff out the likelihood of generated text. Finally, self-plagiarism is a thing, and it is *still plagiarism*. Submitting a paper you wrote for another course, or trying to pass off a paper from this course in one of your other courses, is a violation of academic honesty. To keep things cut-and-dried, **I will never accept written work that directly quotes another source, even if that prior source is attributed. Cited sources must be paraphrased.**

## STUDENT SUPPORT

### Campus Tutoring Services:

You are encouraged to make regular use of campus tutors and/or peer study groups, beginning in the second week of the semester. For campus tutoring locations, subjects and hours, go to: <http://go.csuci.edu/tutoring>.

### Civil Discourse Statement:

All students, staff and faculty on our campus are expected to join in making our campus a safe space for communication and civil discourse. In 2016, CI faculty (through the Academic Senate) voted to approve [Resolution SR 16-01](#) titled, "Commitment to Equity, Inclusion, and Civil Discourse within our Diverse Campus Community." If you are experiencing discomfort related to the language you are hearing or seeing on campus (in or out of classes), please talk with a trusted faculty or staff member. Similarly, please consider whether the language that you are using (in person or on canvas) respects the rights of others to "engage in informed discourse and express a diversity of opinions freely and in a civil manner."

### Emergency Intervention and Basic Needs Statement:

As CI's website points out, "a recent study commissioned by the CSU Chancellor's Office shows that nearly 25 percent of CSU students either regularly skip meals for financial reasons or lack access to toiletries and sufficiently nutritious food options. In addition, more than 10 percent are displaced from their homes due to things like an unexpected loss in income or personal safety issues." If you recognize yourself, or someone you know from this description, please know that there are resources on campus to help, including the Dolphin Food Pantry for students which offers free food, toiletries and basic necessities. The Dolphin Pantry is currently located in Arroyo Hall, Room 117 and is open Monday – Friday 8:30 – 4:30 (please check the website below for updates).

Emergency housing and funds are also available. More information on these, and other services available at CSUCI can be found at: <https://www.csuci.edu/basicneeds/>

**SCHEDULE (SUBJECT TO CHANGE) Note: unless otherwise indicated, bolded items are due on **Tuesdays at 11:59 PM****

<b>Week of:</b>	<b>Lecture Topic</b>	<b>Reading</b>	<b>Submissions/Lab</b>
08/21	Intro, Psychology as Science	Jackson Ch. 1	Form groups and brainstorm topic, briefly introduce Qualtrics
08/28	Getting Started, Using Library Resources, How to Read/Write APA Research Papers	Jackson Ch. 2	How to use library resources, <b>Learner Survey &amp; Syllabus Quiz</b>
09/04	Measurement Basics, Reliability	Jackson Ch. 3	SPSS: Variable types and data setup, <b>Lab Worksheet 1: Database Research/APA Format</b>
09/11	Validity	Jackson Ch. 3	Plan projects, <b>Lab Worksheet 2: Project Variables/Operational Definitions</b>
09/18	Descriptive Methods <b>FINAL WEEK FOR ONE-ON-ONE MEETING!</b>	Jackson Ch. 4	Work on study implementations, <b>1) Lab Worksheet 3: Reliability &amp; Validity</b> <b>2) Preliminary Method Section</b>
09/25	Data Organization and Descriptive Statistics	Jackson, Ch. 5	SPSS: Descriptive Stats, <b>Correlational Study Implementation</b>
10/02	Midterm Review		Midterm Review, <b>1) Lab Worksheet 4: Descriptive Statistics</b> <b>2) Annotated Bibliography</b>
10/09	<b>Midterm Exam</b>		<b>NO LAB Preliminary Introduction Section</b>



10/16	Probability and Hypothesis Testing	Jackson, Ch. 7	Discuss data collection strategy, <b>CITI Paperwork</b>
10/23	Inferential Statistics: One Sample	Jackson, Ch. 8	Begin Data collection, SPSS: one-sample t-test <b>Laboratory Worksheet 5: Probability and Hypothesis Testing</b>
10/30	Correlational Research and Statistics	Jackson, Ch. 6	SPSS: correlation <b>Laboratory Worksheet 6: Z-test &amp; 1-sample t-test</b>
11/06	Correlational Research and Statistics, continued	Jackson, Ch. 6	SPSS: simple linear regression, <b>Laboratory Worksheet 7: Correlation</b>
11/13	Between-Participants Experimental Designs	Jackson, Ch. 9	SPSS: independent-samples t-test, <b>Laboratory Worksheet 8: Writing APA Results/Independent-Samples t-test</b>
11/20	Ethics of Research	Jackson, Ch. 2	NO LAB – Thanksgiving <b>Presentation Sides, Preliminary Results</b>
11/27	Group Presentations Final Exam Review		<b>Final Presentations by Groups, Preliminary Discussion</b>
12/04	<b>Final Exam</b>		<b>Research Manuscript (Thur by 11:59)</b>

[See Project Milestone Summary on next page]

## PROJECT MILESTONE TIMELINE

(All of the dates below also appear in the main schedule above. This timeline has been separated out in case you wish to get a sense of the scope of the main research project on its own.)

<b>Milestone</b>	<b>Due Date</b>	<b>Group or Individual?</b>
Lab Worksheet 2 (with project variables)	09/12	Individual
Preliminary Method Section	09/19	Individual
Correlational Study Implementation	09/26	Group
Annotated Bibliography	10/03	Individual
Preliminary Introduction Section	10/10	Individual
CITI Paperwork	10/17	Individual
Presentation (slides)	11/21	Group
Preliminary Results Section	11/21	Individual
Preliminary Discussion Section	11/28	Individual
Group Presentation	In lab (11/29)	Group
Research Manuscript	12/07	Individual

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