

Advanced Research Methods in Psychology

PSYC 118

Spring 2026 Section 30 In Person 3 Unit(s) 01/22/2026 to 05/11/2026 Modified 01/16/2026

Contact Information

Instructor	Ángel Villicaña, M.S.
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Office Hours	Mondays, 12pm - 1pm or by appointment (DMH #230 or request a Zoom link)

Course Information

Class Date/Time	Date/Time	Location
PSYC 118-30 (lecture)	Monday/Wednesday, 1:30pm - 2:20pm	Health Building 408
PSYC 118-31 (lab)	Mondays, 3pm - 5pm	Boccardo Business Center 128
PSYC 118-32 (lab)	Wednesday, 3pm - 5pm	Boccardo Business Center 203

Course Description and Requisites

Descriptive, correlational, quasi-experimental, and experimental approaches: design, methodology, and analysis. Experience designing, conducting, analyzing, and presenting (verbal and written) research findings. Topics include: hypothesis testing, validity, reliability, scales of measurement, questionnaire development, power, statistical significance, and effect size.

Prerequisite: Lower division GE complete; STAT 95, PSYC 18, PSYC 100W with a "C" or better (or departmental approval), Upper division standing, Psychology or Behavioral Science majors only.

Letter Graded

* Classroom Protocols

Communication

Please reach out whenever you have questions, concerns, or curiosities. You may contact me via email (angel.villicana@sjsu.edu) or Canvas messaging. Please include the class and section number in the subject line. I aim to respond within 1–2 business days. Messages sent over the weekend may not receive a response until Monday.

I encourage you all to reach out often and early. Your presence and contributions to this class matter. Please let me know if there is anything I can do to help improve your learning experience.

Office Hours

My regular office hours are Fridays from 2pm - 3:30pm in DMH #230. I am also available by appointment, either in person or via Zoom (depending on your schedules). I encourage you to use office hours to discuss course material, assignments, or any questions about your progress in the class.

Respectful Learning Environment

We strive for a classroom where all students feel safe, supported, and heard. Please:

- Listen when others are speaking and contribute constructively.
- Avoid side conversations during class and labs.
- Respect diverse perspectives and experiences.

Attendance

According to University Policy F15-12, “Students are expected to attend all meetings for the courses in which they are enrolled as they are responsible for material discussed therein and active participation is frequently essential to ensure maximum benefit to all class members. In some cases, attendance is fundamental to course objectives; for example, students may be required to interact with others in the class. Attendance is the responsibility of the student. Participation may be used as a criterion for grading when the parameters and their evaluation are clearly defined in the course syllabus and the percentage of the overall grade is stated.”

Credit Hour Definition

To be successful in courses at SJSU, it is expected that students will spend a minimum of forty-five hours for each unit of credit (a 3-unit class would be approximately 9 hours per week), including preparing for class, participating in course activities, and completing assignments. More details about student workload can be found in University Policy (<http://www.sjsu.edu/senate/docs/S12-3.pdf>)

Accessibility & Accommodations

San José State University is committed to providing equitable access to learning for all students. The Accessible Education Center (AEC) will notify me of students with documented accommodations. However, it is your responsibility to meet with me if you would like to discuss how your accommodations may apply in this course, especially since there are no traditional exams. Please reach out early in the semester so we can plan together and ensure your needs are met.

AI Policy

Generative artificial intelligence tools—software that creates new text, images, computer code, audio, video, and other content—are widely available. Well-known examples include ChatGPT (text) and DALL·E (images). This policy governs all such tools, including those released during our semester together.

- You may use generative AI tools to brainstorm initial ideas, create outlines, or revise drafts for assignments in this course.
- You may not use AI tools to write your assignments for you.
- If you use AI on assignments, you must document and credit the tool. Cite the tool using APA format (as software), and include a brief (25–100 word) description of how you used it. Add this paragraph at the end of your text, before the References list; it is not included in the word count.

Important considerations:

- AI tools are trained on limited, pre-existing datasets that may be out-of-date or include copyrighted material.
- Reliance on AI can result in plagiarism, copyright violations, or inaccurate content.
- You are responsible for ensuring that all submitted work reflects your own understanding, is accurate, and maintains academic integrity.
- Unauthorized or improper use of AI will be addressed under the SJSU Academic Integrity Policy.
- Consequences for a first offense may range in severity; repeated offenses may result in more serious academic review.

Program Information

Program learning outcomes (PLOs) are skills and knowledge that students will have achieved upon completion of the Psychology BA degree. Each course in our curriculum contributes to one or more of these PLOs. The PLOs for the Psychology BA degree are:

1. Knowledge Base of Psychology. Students will be able to demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
2. Research Methods in Psychology. Students will be able to design, implement, and communicate basic research methods in psychology, including research design, data analysis, and interpretations.
3. Critical Thinking Skills. Students will be able to use critical and creative thinking, skeptical inquiry, and a scientific approach to address issues related to behavior and mental processes.
4. Applications of Psychology. Students will be able to apply psychological principles to individual, interpersonal, group, and societal issues.

Values in Psychology. Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

Course Learning Outcomes (CLOs)

Upon successful completion of this course, students will be able to:

1. Understand how scientific methods are used in psychological research.

2. Summarize the differences between different types of research designs used in psychological research.
3. Determine the advantages and disadvantages of specific research methods for different situations.
4. Evaluate whether research participants are treated ethically and understand the importance of ethical considerations in research.
5. Design and conduct a psychological experiment, analyze data, and interpret results.
6. Communicate research findings effectively through written reports and oral presentations.

Course Materials

Required Textbook

No textbook purchase is required for this class. Instead, we will be using an Open-source textbook for this course, made available on Canvas as a PDF and direct link: [Cuttler, C., Jhangiani, R. S., & Leighton, D. C. \(2019\). Research Methods in Psychology; 4th American Edition. \(https://kpu.pressbooks.pub/psychmethods4e/\)](https://kpu.pressbooks.pub/psychmethods4e/)

Recommended Texts

These are not required for you to purchase, but will be useful throughout the course. Specific excerpts and resources will be linked and posted on Canvas regularly. If you have a resource you'd like to share and add to the class, please message me privately and ensure it is in a shareable format (e.g., not a private file or a broken link).

- APA Style website: <https://apastyle.apa.org/>
- APA Style Tutorial at <https://extras.apa.org/apastyle/basics-7e/>
- Purdue Owl APA Style Resource at <https://owl.purdue.edu/>
- American Psychological Association (2020). Publication Manual of the American Psychological Association (7th Ed.).
- Condensed version of the American Psychological Association (2020). Publication Manual of the American Psychological Association (7th Ed.)

Technology Requirements

Students will need access to the internet and the Canvas site to submit assignments. Submission of assignments may occur during class periods with an electronic device that can access the Canvas site (phone, tablet, or laptop). Students will have access to a desktop computer during lab periods. If you do not have a laptop but would like one, you may borrow one from the Student Computing Center in the SJSU library.

We will be using SPSS (<https://www.sjsu.edu/it/services/support/desktop/instructions.php>) for data collection, management, and analysis and preparation of research report. Reach out to IT services for any tech-related issues (<https://isupport.sjsu.edu/Helpdesk>).

Course Requirements and Assignments

Your grade in this course reflects steady engagement, skill development, and demonstrating your ability to apply research methods in psychology. In groups of 2-3, you will be asked to design and progressively write as a team for the final research project. Unless otherwise noted, all assignments are submitted via Canvas. Assignments will be evaluated based on responsiveness to prompts, accurate application of research methods, writing quality, and proper use of APA style when applicable. Detailed rubrics for each assignment are provided on Canvas.

Participation Activities (10%)

Active participation is essential for your learning and for completing your team's final project. Participation will be assessed based on completion of in-class Canvas activities and active collaboration with project team members. Given the nature of these activities, you must be present in class to earn participation credit.

Submission:

- Completed in-class and submitted via Canvas by Fridays, 11:59 PM
- Maximum 3 points per activity
- To allow flexibility, the two lowest participation grades will be dropped when calculating the final participation score.
- Across the semester, there will be approximately 15 participation activities (at least one per week)

Grading basis: Participation assignments are graded on effort, engagement, and completion.

Lab Activities (20%)

There are 6-8 lab activities (approx. 10-12 points each) designed to develop key research skills, including APA style, ethics, data handling, and peer feedback. Lab activities may include short response papers or brief data analysis write-ups (250–500 words).

Submission: Upload your responses to Canvas by the assigned due dates.

Grading basis: Lab activities are graded on accuracy, application of research methods, clarity of writing, and APA style. Detailed rubrics are posted on Canvas.

Milestone Assignments (40%)

Four major milestones guide your project from drafted components to a final edited paper. You are encouraged to work together with your group members; however, everyone must submit their own individual assignment.

Milestone	Length	Due Date	Points
M1: Introduction	2-3 pages (≈500-750 words)	Week 5 (Fri, Feb 22)	40 pts
M2: Methods	2-4 pages (≈500-1000 words)	Week 9 (Fri, Mar 22)	60 pts

Milestone	Length	Due Date	Points
M3: Results	2-4 pages (~500-1000 words, incl. tables/figures)	Week 12 (Fri, April 18)	60 pts
M4: Discussion	2-3 pages (~500-750 words)	Week 13 (Fri, April 24)	40 pts

Grading basis: Milestones are graded on clarity, accuracy in applying research methods, depth of analysis, responsiveness to feedback, and APA style. Group milestones assume equitable participation; students are responsible for communicating with teammates and meeting deadlines to ensure all group members can contribute effectively. Detailed rubrics are posted on Canvas.

Final Presentation (10%)

A 15–20 minute group, in-class presentation sharing your research findings. Presentations will be evaluated on organization, clarity, integration of findings, and delivery. A sign-up sheet will be announced and posted on Canvas.

Submission: Slides (10–15) must be submitted on Canvas before your scheduled presentation date.

Grading basis: Presentations are graded on organization, clarity, integration of research findings, delivery, and evidence of individual contributions. Detailed rubrics are posted on Canvas.

Final Research Report (20%)

This course satisfies the SJSU *culminating experience* requirement through a final group research presentation and an individual written research report. The report is an 10-12 page APA-style paper (approx. 2,000–2,500 words, including references and appendices) that integrates group and individual work, revises earlier milestones, and demonstrates a comprehensive understanding of the research process.

Collaboration & Contribution Statement (5% of report grade):

Each student must include a brief (150–200 word) statement at the end of their report describing their specific contributions to the group milestones and presentation. The statement should outline what tasks or sections they completed, how they collaborated with teammates, and any challenges or strengths in the process. This portion counts for **5% of the total report grade** and is assessed on clarity and completeness. The purpose is to document participation and ensure equitable credit for collaborative work.

Submission: Friday, May 15, 2026 by 3pm on Canvas.

Grading: The final report will be evaluated on completeness, integration of feedback, writing quality, accuracy of research methods, adherence to APA style, and group collaboration. Detailed rubrics are posted on Canvas.

✓ Grading Information

Grading Breakdown

Assignment Category	% of Grade	Points
Participation Activities	10%	50 pts (15 weeks × 3 pts each, lowest 2 dropped)
Labs	20%	100 pts (8 labs × 10-12 pts each)
Milestones	40%	200 pts (across M1, 2, 3, 4)
Final Presentation	10%	50 pts
Final Research Report	20%	100 pts (includes revised drafts)
Total	100%	500 pts

Grading Scale

Letter Grade	Percent
A plus	97 or higher
A	93 to 96.99
A minus	90 to 92.99
B plus	87 to 89.99
B	83 to 86.99
B minus	80 to 82.99
C plus	77 to 79.99

C	73 to 76.99
C minus	70 to 72.99
D plus	67 to 69.99
D	63 to 66.99
D minus	60 to 62.99
F	59 or below

Late Work

All individual assignments may be submitted up to 48 hours after the deadline with no penalty. After 48 hours, an automatic 10% deduction per day applies. However, please keep in mind that delays on group-related assignments may delay the success and progress of your group.

Please reach out early or as soon as possible if you anticipate difficulty meeting a deadline.

Communication before the due date can often prevent penalties and allow for alternative arrangements when needed.

Extra Credit (2%)

Opportunities may be provided for students up to two percent of the total course grade. These may range from one-page literature reviews, video essays, or research event summaries submitted. Submission portals with further instructions are provided on Canvas.

University Policies

Per [University Policy S16-9 \(PDF\)](http://www.sjsu.edu/senate/docs/S16-9.pdf), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on the [Syllabus Information](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) web page. Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

Week & Date	Lecture & Lab Topics	Readings	Assignments

1 – Jan 22	Course introduction; psychology as a science	Chapter 1	–
2 – Jan 26 & 28	Overview of the Scientific Method	Chapter 2	Lab 1
3 – Feb 2 & 5	Research Ethics	Chapter 3	Lab 2
4 – Feb 9 & 11	Levels of Measure in Psychology	Chapter 4	Lab 3
5 – Feb 16 & 18	Experimental Research	Chapter 5	M1: Introduction
6 – Feb 23 & 25	Non-experimental Research	Chapter 6	Lab 4
7 – Mar 2 & 5	Survey Research	Chapter 7	Lab 5
8 – Mar 9 & 11	Quasi-experimental Research; lab on methods preparation	Chapter 8	Lab 6
9 – Mar 16 & 18	Single-subject Design	Chapter 10	M2: Methods
10 – Mar 23 & 25	Factorial Design; Data Analysis Foundations	Chapter 9	Lab 7
Mar 30 & Apr 1	Spring Break		
11 – Apr 6 & 8	Descriptive Statistics	Chapter 12	M3: Results pt 1
12 – Apr 13 & 15	Inferential statistics; lab on interpretation	Chapter 13	M3: Results pt 2
13 – Apr 20 & 22	Finalizing results and discussion sections	Chapter 11	M4: Discussion

14 – Apr 27 & 29	Presenting your research: presentations & papers	Chapter 11	Lab 8
15 – May 4 & 6	Final project presentations	—	Final Presentations – scheduled in class
16 – May 11	Makeup presentations; course wrap-up	—	—
Finals Week	—	—	Final Research Report – Fri, May 15, 3PM due on Canvas