

Advanced Research Methods in Psychology

PSYC 118

Fall 2026 Section 10 In Person 3 Unit(s) 08/19/2026 to 12/07/2026 Modified 08/19/2026

Contact Information

Instructor	Ángel Villicaña, M.S.
Email/Contact	Angel.villicana@sjsu.edu
Office Hours	Mondays and Wednesdays, 1:30pm -2:30pm or by appointment (DMH #230 or request a Zoom link). First office hours begin on Week 2.

Course Information

Class Date/Time	Date/Time	Location
PSYC 118-10 (lecture)	Monday and Wednesdays, from 9:00am - 9:50am	Dudley Moorhead Hall (DMH) room 348
PSYC 118-11 (lab)	Mondays only, from 10:15am - 12:15pm	Dudley Moorhead Hall (DMH) room 236
PSYC 118-12 (lab)	Wednesdays only, from 10:15am- 12:15pm	Dudley Moorhead Hall (DMH) room 236

Course Canvas Page: <https://sjsu.instructure.com/courses/1635640>

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.

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 Readings and Class Materials

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/)

Computer Access

Students will need access to the internet and the online 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](https://library.sjsu.edu/student-computing-services) (<https://library.sjsu.edu/student-computing-services>).

SPSS

We will be using [SPSS](https://www.sjsu.edu/it/services/support/desktop/instructions.php) (<https://www.sjsu.edu/it/services/support/desktop/instructions.php>) (advanced statistical software) for data collection, management, and analysis and preparation of research report. This tool is free for SJSU students; Reach out to IT services for any tech-related issues (<https://isupport.sjsu.edu/Helpdesk>).

Qualtrics

To complete your individual research projects, you will be required to create and collect data using an online survey via [Qualtrics](https://www.sjsu.edu/it/research/applications/qualtrics.php) (<https://www.sjsu.edu/it/research/applications/qualtrics.php>) (advanced survey tool). This tool is free to access for SJSU students; Reach out to [IT services](https://isupport.sjsu.edu/Helpdesk) (<https://isupport.sjsu.edu/Helpdesk>) for any tech-related issues.

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.)

Additional Course & Student Wellbeing Resources

There are additional resources available on Canvas, covering both academic needs (i.e., APA writing) and personal wellbeing resources. Both can be found under the top modules in Canvas. If there is a broken link or resource you would like to add, simply contact me via email to let me know.

Course Requirements and Assignments

Your grade in this course reflects steady engagement, skill development, and demonstrating your ability to apply research methods in psychology. You will be asked to work as a group to design your own survey, collect data, and test hypotheses. The work you do as a group will help you progressively draft key components of the final paper. 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 final project. Participation will be assessed based on completion of in-class Canvas activities and active collaboration during peer-based tasks (approximately 2-5 points each week). Given the nature of these activities, you must be present in class to earn participation credit.

Submission: Activities are completed and submitted in lecture. You have until the final posted deadline to submit a final responses to Canvas by the end of the week (Fridays, 11:59 PM).

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

Quizzes (20%)

To assess your content mastery, there will be a quiz due at the end of each week (approximately 10-20 points each). Each quiz is based off of the corresponding module's readings and lecture content. You are allowed to reference your personal notes and reading materials, but you may not use other websites or AI tools to complete answers. Your responses are saved and there is no time limit to complete these. For instance, you may take a break during the quiz and complete as a later time, just as long as your final response is recorded before the deadline.

Submission: Completed on canvas, Quizzes open at the start of the week and are due by the end of the same week (Fridays, 11:59 PM).

Grading basis: Quizzes are graded on accuracy and completion. There are 3 total attempts per quiz, highest score is kept. Reach out if you suspect an error or typo.

Lab Activities (20%)

There are 5 lab activities (20 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 hands-on data analysis.

Final Presentation: The fifth and last lab will be completed through an **in-class final presentation** and submission of research project materials. Presentations will be evaluated on organization, clarity, integration of findings, and delivery (20 points).

Submission: Upload your complete responses and research materials (if applicable) 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.

Final Research Paper (50%)

This course satisfies the SJSU *culminating experience* requirement through an individual written research report. Four major milestones guide your project from drafted components to a final edited paper, covering

the majors sections found in a research paper: Introduction, Methods, Results, and Discussion (50 points each).

Milestones	Length	Due Date	Points
M1: Introduction	2-3 pages (≈500-750 words)	Module 1 (Fri, Sep 18)	50 pts
M2: Methods	2-4 pages (≈500-1000 words)	Module 2 (Fri, Sep 09/25)	50 pts
M3: Results	2-4 pages (≈500-1000 words, incl. tables/figures)	Module 3 (Fri, Oct 30)	50 pts
M4: Discussion	2-3 pages (≈500-750 words)	Module 4 (Fri, Nov 27)	50 pts
M5: Final Paper	8-10 pages (≈2,000-2,500 words)	Module 5 (Mon, Dec 14)	50 pts

The fifth, and final milestone submission represents the finalized research paper written fully in APA 7th format (50 points). The finalized report is an 8-10 page APA-style paper (approx. 2,000–2,500 words, not including references and appendices) that integrates completely individual work, revises earlier milestones, and demonstrates a comprehensive understanding of the research process.

Submission: Complete by the hard deadline of Monday, December 14th, 2026 by 10:30am on Canvas. This schedule is determined by the Registrar's office; Please note that this is not our typical Friday deadline.

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

✓ Grading Information

You will be assessed across four criteria in the course, culminating to a final research paper (participation, lab activities, milestones, and quizzes). Please read the information below to understand the late work policy, extra credit opportunities, as well as grading scale & breakdown.

Late Work & Grace Period

Individual writing assignments, such as the milestone drafts and lab activities, may be submitted up to 48 hours after the deadline with no penalty. After 48 hours, a 10% deduction per day applies (max 10 days). This **does not apply** to the final research paper.

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 extensions 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.

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

Breakdown

Assignment Category	% of Grade	Points
Participation Activities	10%	50 points (approx. 2 per week x 2-5 points each)
Quizzes	20%	100 points (5 quizzes x 20 points each)
Lab Activities	20%	100 points (5 labs - includes final presentation x 20 points each)
Final Research Report	50%	250 points (across all four drafts + finalized version x 50 points each)
Total	100%	500 points



University Policies

Per [University Policy S16-9 \(PDF\)](http://www.sjsu.edu/senate/docs/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) (<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 (Chapter: Sections)	Assignments
Week 1 - Aug 19	Course information & syllabus overview	Syllabus	N/A
Week 2 - 08/24 Week 2 - 08/26	Course introduction; overview of research methods in psychology	Ch. I: 1–6 Ch. II: 7–13	Weekly participation due each Friday by 11:59pm Lab 1 due end of week

Week 3 - 08/31 Week 3 - 09/02	Research ethics; APA style basics; lab orientation	Ch. III: 15–18	Weekly participation due each Friday by 11:59pm Lab 2 due end of week
Week 4 - Campus Closed 09/07 Week 4 - 09/09	From Observation to Measurement; Developing research questions; hypothesis formulation	Ch. IV: 19–22	Weekly participation due each Friday by 11:59pm Quiz 1 due end of week
Week 5 - 09/14 Week 5 - 09/16	Experimental vs Non-experimental Studies; Translating Research Questions to Analyses	Ch. V: 23–27	Weekly participation due each Friday by 11:59pm M1: Introduction due end of week
Week 6- 09/21 Week 6- 09/23	Measurement and scales; lab on methods preparation	Ch. VI: 28-33	Weekly participation due each Friday by 11:59pm Survey draft due by end of week
Week 7- 09/28 Week 7- 09/30	Survey and observational design; data collection plan	Ch. VII: 34–37	Weekly participation due each Friday by 11:59pm M2: Methods due end of week
Week 8- 10/05 Week 8- 10/07	Psychological Measurement; Hypothesis refinement; preparing for the individual milestone	Ch. VIII: 38-40	Weekly participation due each Friday by 11:59pm Quiz 2 due end of week

Week 9- 10/12 Week 9- 10/14	Factorial research designs; lab on data preparation and data collection	Ch. IX: 41-43	Weekly participation due each Friday by 11:59pm Lab 3
Week 10- 10/19 Week 10- 10/21	Measurement and scales; survey and observational design; data collection	Ch. X: 44-47	Weekly participation due each Friday by 11:59pm Quiz 3
Week 11- 10/26 Week 11- 10/28	Data analysis foundations	Ch. XI: 48–49 Ch. XII: 52–56	Weekly participation due each Friday by 11:59pm M3: Results due end of week
Week 12- 11/02 (Class Cancelled) Week 12- 11/04	Planned analyses; power analysis; lab on data handling (Wednesday lab focused)	Ch. XII: 52–56	Weekly participation due each Friday by 11:59pm Submit pending or overdue assignments
Week 13- 11/09 Week 13- Campus Closed 11/11	Interpreting statistical results (Monday lab focused)	Ch. XIII: 57–61; Ch. II: 13	Weekly participation due each Friday by 11:59pm Quiz 4 due
Week 14 - 11/16 Week 14- 11/18	Writing results and discussion sections; lab on interpretation	Ch. XI: 48–49	Weekly participation due each Friday by 11:59pm Lab 4

Week 15- 11/23 Week 15- Campus Closed 11/25- 11/27	Presentation skills and practice	Ch. XI: 50	Weekly participation due each Friday by 11:59pm M4: Discussion due end of week
Week 16- 11/30 Week 16- 12/02	Final project presentations (lecture); lab on final APA writing	Ch. XI: 48–50	Weekly participation due each Friday by 11:59pm Lab 5 (presentation grade)
Last Week of Instruction- 12/07	Last day for presentations (and makeups); Individual Final Project and Course Check-ins instead of lab (Mon only)	N/A	Quiz 5 due end of week
Finals Week	—	—	Final Project (Draft 5) due Monday, December 14th, by 10:30AM (Registrar's Finals Schedule)