

Introduction to Research Methods

PSYC 18

Fall 2025 Section 06 In Person 3 Unit(s) 08/20/2025 to 12/08/2025 Modified 08/24/2025

Contact Information

The best way to contact me is via email @ desiree.ryan@sjsu.edu.

I will do my best to reply to emails within 48 hours, but response times may take longer at the beginning of the semester and during finals.

Office Hours: Thursdays, 12-1:30, DMH 316, or by appointment

Phone: 408-924-5653

Course Information

Class: Tues/Thurs, 3-4:15

Room: HGH217

Course Description and Requisites

Psychological research methods and design (experimental, quasi-experimental [correlational], and descriptive investigations) covering observation, instrumentation, and the collection, analysis, interpretation, and reporting of research data as illustrated through a review of original research in a variety of the subdisciplines of psychology.

Prerequisite(s): PSYC 1, and STAT 95.

Grading: Letter Graded

Classroom Protocols

Inclusivity and Engagement Principles: Together, we will co-create a classroom environment that is inclusive and welcoming to everyone. In this course, we will respectfully discuss diverse experiences related to gender identity, race and ethnicity, and socioeconomic status, among others. To ensure that

everyone's identities and experiences are valued and heard, I expect each of you to regard one another with the utmost respect. If you feel these principles are not being met by me or your peers, please let me know immediately.

Note on Device Use: To ensure the environment is marked by respect and inclusivity, I ask that you please refrain from texting, browsing the internet, and/or using social media. I understand some of you may need to check your texts or phones for family emergencies, etc., so I ask that you please do so quietly and mindfully. *If you are becoming distracted and not listening to or engaging with the course material, me, or your peers, I will ask to speak to you privately. If the behavior continues, I will ask you to leave the classroom.*

Accessibility: I aim to make our learning community as accessible as possible. This means that I will provide accessible materials and create opportunities for different kinds of classroom engagement (i.e., traditional test taking, written assignments, group discussions, personal reflections, take-home assignments). If course materials are inaccessible, or you experience a barrier to participating in class, please bring this to my attention immediately, and I will gladly work with you to ensure accessibility. If you are a student with a disability who requires accommodations to achieve equal access to this course, please visit the [Accessible Education Center \(https://www.sjsu.edu/aec/\)](https://www.sjsu.edu/aec/). Additionally, please get in touch with me privately during my office hours or by appointment, preferably during the first few weeks of the semester, so I can ensure your needs are being met and I am doing all I can to support you.

Academic Integrity: All submitted work must be your own original work and produced exclusively for this course. Academic integrity includes following exam and paper rules, using only permitted materials during an exam, keeping what you know about an exam to yourself, incorporating proper citation of all sources of information, and only submitting your own original work. The use of sources (ideas, quotations, paraphrases) must be properly acknowledged and documented.

The use of **AI (e.g., ChatGPT)** at any stage of course assessments is prohibited. For example, students may not use AI to generate ideas, guide paper writing, or construct sentences, paragraphs, or full papers. Violations will be taken seriously and may result in a failing grade for the assignment and/or the course. I cannot guide you in developing your critical thinking and writing skills if you use AI during this course.

Academic misconduct includes, but is not limited to, disclosing exam content during or after you have taken an exam, accessing exam materials without permission, copying/purchasing any material from another student, or from another source, that is submitted for grading as your own, and plagiarism such as using internet material without proper citation.

Violations will be taken seriously and may result in a failing grade for the assignment and/or the course. If you have any questions, please talk with me before completing an assignment.

Distribution of Lecture Notes and Other Course Materials: All materials in this course are the intellectual property of their creators. As a student, you have access to many of the materials in the course for the purpose of learning, engaging with your classmates, and completing assignments. You have a moral and legal obligation to respect the rights of others by only using course materials for purposes associated with

the course. You are not permitted to share, upload, stream, sell, republish, share the login information for, or otherwise disseminate any of the course materials, including video and audio files, assignment prompts, slides, notes, syllabus, simulations, datasets, discussion threads.

Please note that teaching and learning is an iterative process, and as such, the course schedule and other syllabus content (e.g., exam question format) may shift as we progress through the semester.

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)

CLO #1: Distinguish between empirical and non-empirical research.

CLO #2: Describe the different psychological research methods, understand when to apply each, and discuss the pros and cons of each.

CLO #3: Apply course concepts to current social issues.

CLO #4: Build the skills to navigate PsycINFO and collect relevant literature.

CLO #5: Create a research poster.

Course Materials

You may get the course e-textbook through the bookstore (by going online or in person):

Course Requirements and Assignments

Lectures and Class Activities/Discussions:

For the bulk of the semester, each week will be composed of a lecture on Tuesdays, and a lecture or mini-lecture and applied activity on Thursdays.

Course Assessments:

Course Total Points = 100 points

1. **50 points:** 2 exams (25 pts each)
2. **25 points:** Research poster
3. **15 points:** Content quizzes (3 quizzes, 5 pts each)
4. **10 points:** In-class activities and/or take-home assignments

1. Exams (50 points: 2 exams, 25 points each):

To meet CLO #1 and CLO #2, you will take 2 exams on Canvas. Exams will be open-note and open-book (BUT not open-partner, open-Google, or open-AI). You will have 75 minutes to answer 50 questions. Because the exams are timed, I strongly suggest you study as if this were an in-class, scantron exam, and only use your notes as a backup. Exam questions may take the form of multiple choice, true/false, fill-in-the-blank, fill-in-multiple blanks, multiple answers, multiple drop-downs, matching, and short essay answer questions.

Throughout the course, I will hold 3 exams; you will only need to take 2 of them. You are welcome to take all 3 and drop your lowest score, or only take 2 of them. Please plan accordingly as students cannot retake any exam. Canvas will automatically drop your lowest score (which will be a zero if you do not take it). I will open the exam at 9am on the exam date and leave it open for 48 hours. Once you open the exam, a timer will start and will only have 75 minutes to complete the exam. Please ensure you are in a quiet environment with stable wifi. If the wifi goes out, this exam will be dropped as your lowest score. Once you've seen the exam, I cannot reopen it for you under any circumstances (this is why I have a very flexible exam policy). I will be in our classroom during the regular class time if you wish to take the exam there (I recommend this option).

Further detailed information regarding exam content will be given in class.

2. Research Poster (25 points)

To deepen your understanding of psychological research and learn how to think like a researcher, you'll create a conference-style research poster — a common way scientists share their findings. Throughout the course, you'll choose a psychological topic that interests you, develop a research

question, and conduct a literature review using PsychINFO. You'll gather at least six sources and summarize your findings in your poster. Further details will be provided in class. This assignment will meet CLOs #3, #4, and #5.

3. Content Quizzes (15 points: 3 quizzes, 5 points each):

To ensure you are regularly engaging with content outside of lecture, reading, and keeping pace with the course, I will hold 3 quizzes throughout the semester. Like the exams, quizzes will be taken on Canvas (so you will need to bring a computer to class on quiz days). I will open the quiz at 9 am on the quiz date and leave it open for 48 hours. Once you open the quiz, a timer will start, and you will only have 10 minutes to complete the quiz. Please ensure you are in a quiet environment with stable wifi. On the actual day of the quiz, I will reserve the first 10 minutes of class for people to take the quiz if they choose not to take it at home. I recommend taking it during class time, in the classroom with me. We will have regular lecture after the quiz. Quizzes meet CLO #1 and CLO#2.

4. In-Class Activities & Discussions and/or Take-Home Assignments (10 points):

Throughout the semester (usually once a week), you will break into groups to engage in activities where you will apply course concepts. These activities are important as we will be actively and deeply engaging with the course content in ways that cannot be facilitated by reading lecture slides at home on your own. These activities and discussions will facilitate CLOs #1, #2, and #3.

✓ Grading Information

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| 93-100% A | 87-89% B+ | 80-82% B- | 70-76% C |
| 90-92% A- | 83-86% B | 77-79% C+ | 60-69% |

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 Topic | Due Date |
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| Introduction to Scientific Thinking | | | |

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| 1 | Thurs, 8/21 | Welcome & Class Overview | No readings due |
| 2 | Tues, 8/26 | Psychological Ways of Thinking | Ch. 1 |
| | Thurs, 8/28 | Sources of Information | Ch. 2 |
| 3 | Tues 9/2 | Three Claims, Four Validities | Ch. 3 |
| | Thurs, 9/4 | Three Claims, Four Validities | Ch. 3 Quiz #1 |
| Research Foundations for Any Claim | | | |
| 4 | Tues, 9/9 | Ethical Guidelines | Ch. 4 |
| | Thurs, 9/11 | Identifying Good Measurements | Ch. 5 |
| 5 | Tues, 9/16 | Identifying Good Measurements | Ch. 5 |
| | | Survey and Observations | Ch. 6 |
| | Thurs, 9/18 | Exam 1 | Exam 1 |
| 6 | Tues, 9/23 | Sampling | Ch. 7 Last day to add courses and register late Last day to drop the course without an entry on the student's permanent record |

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| | Thurs, 9/25 | Bivariate Correlational Research | Ch. 8 |
| 7 | Tues, 9/30 | Bivariate Correlational Research | Ch. 8 |
| | Thurs, 10/2 | Multivariate Correlational Research | Ch. 9 |
| 8 | Tues, 10/7 | Multivariate Correlational Research | Ch. 9 |
| Tools for Evaluating Causal Claims | | | |
| | Thurs, 10/9 | Simple Experiments | Ch. 10 |
| 9 | Tues, 10/14 | Simple Experiments | Ch. 10 |
| | Thurs, 10/16 | Simple Experiments | Quiz #2 |
| 10 | Tues, 10/21 | Experiments: Confounding and Obscuring Variables | Ch. 11 |
| | Thurs, 10/23 | Experiments: Confounding and Obscuring Variables | Ch. 11 |
| 11 | Tues, 10/28 | Experiments: Confounding and Obscuring Variables | Ch. 12 |
| | Thurs, 10/30 | Exam 2 | Exam 2 |
| 12 | Tues, 11/4 | Experiments with Multiple IVs | Ch. 12 |

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| | Thurs 11/6 | Experiments with Multiple IVs | Ch. 12 |
| 13 | Tues, 11/11 | Experiments with Multiple IVs | Ch. 12 |
| | Thurs, 11/13 | Quasi-Experiments | Ch. 13 |
| 14 | Tues, 11/18 | Quasi-Experiments | Quiz #3 |
| Balancing Research Priorities | | | |
| | Thurs, 11/20 | Small N Designs | Ch. 13 |
| 15 | Tues, 11/25 | Poster Workshop Day | Ch. 15 |
| | Thurs, 11/27 | No class/Thanksgiving | |
| 16 | Tues, 12/2 | Qualitative Research | Poster due by Wed, 12/2 by 11:59 via Canvas |
| | Thurs, 12/4 | Course Wrap Up | |
| 17 | Tues, 12/9 | No class/Campus Study Day | |
| | Thurs, 12/11 | Exam 3 | 1:00 pm - 3:00 pm |