

Introduction to Research Methods Section 04

PSYC 18

Spring 2025 In Person 3 Unit(s) 01/23/2025 to 05/12/2025 Modified 01/24/2025

Contact Information

Instructor:	Dr. Christina Tzeng
Office Location:	Dudley Moorhead Hall (DMH) 319
Email:	christina.tzeng@sjsu.edu
Office Hours:	Tuesdays & Thursdays, 12:00 PM – 1:00 PM PST, or by appointment
Class Days/Time:	Tuesdays & Thursdays from 1:30 PM – 2:45 PM PST
Classroom:	Clark Building, Room 243
Prerequisites:	PSYC 001 (General Psychology), STAT 95 (Elementary Statistics)

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: PSYC 001, and STAT 95.

Letter Graded

* Classroom Protocols

Research is a lens through which we can make sense of the world. We are bombarded with information about research findings every day. How do we know what to believe? In this course, you will learn to evaluate information from the perspective of a social science researcher. You will learn the rationale, strengths, and limitations of using the scientific method for making discoveries about human behavior. Armed with the tools of a discerning consumer of science, you will be prepared to design and execute your own research.

Course Format

This is an **in-person** course. Each week, on **Tuesdays and Thursdays from 1:30 PM - 2:45 PM PST**, we will meet for in-person class sessions. During these sessions, we will engage in lecture material and content-related discussions and activities.

Canvas

All course content, such as the syllabus, lectures, assignments, grades, etc. will be on the Canvas Learning Management System [course website](http://sjsu.instructure.com) at <http://sjsu.instructure.com>. You are responsible for regularly checking Canvas for course announcements and updates.

≡ 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)

CLO1. Demonstrate knowledge of the basic principles of the scientific method

CLO2. Describe and distinguish between methodologies used in psychology research

CLO3. Infer appropriate conclusions from psychology research

CLO4. Synthesize and evaluate claims made in social science research

CLO5. Critique the motivation, validity, generalizability, and adherence to ethical standards of psychology research

CLO6. Articulate how knowledge of the scientific process can inform decisions in everyday life

CLO7. Respect the relative nature of empirical evidence

CLO8. Recognize the value of intellectual curiosity and skepticism

Course Materials

Required Textbook

Bordens, K & Abbott, B. (2022). Research Design and Methods: A Process Approach, 11th Edition. McGraw Hill. ISBN-10: 1260837017

*An electronic version of this textbook can be rented or purchased for the semester online. Please be sure to purchase the **11th edition** of the book, as page numbers and content differ across editions.

Course Requirements and Assignments

Participation

As mentioned above, we will have in-person class sessions on **Tuesdays and Thursdays from 1:30 PM - 2:45 PM PST**. Prior to each class session, you will have completed a corresponding reading and/or activity. During class sessions, we will be engaging as a group with the course material you were exposed to earlier in the week.

In-class participation is integral to success in this course. Class meetings will entail participating in small-group discussions and activities about course concepts and thinking critically about the methodology used in a research report, the appropriateness of conclusions that can be drawn from research results, and the evaluation of research findings highlighted in popular media.

Note on Attending Class

- **If you are unable to attend class, please email me beforehand to let me know.** As noted above, completion of in-class activities constitutes part of your course grade.
- Much research suggests that class attendance is a better predictor of college grades than any other known predictor of academic performance, including high school GPA and standardized test scores (Credé, Roch & Kieszczynska, 2010). Attending class:

- (1) helps students feel more accountable for their studies
- (2) helps them stay on track with course material
- (3) makes students feel more engaged with course content, their peers, and the instructor
- (4) allows them the opportunity to ask questions and receive an immediate response

All of these are factors that lead to a more positive overall class experience.

Readings

Students are responsible for thoroughly reading all assigned readings **before** the start of each class session. Exams and homework assignments will include content in-person class sessions and assigned reading materials.

Homework

Students will complete weekly homework assignments throughout the semester. Research suggests that frequent opportunities for students to think critically about course content enhances both the quality of their learning and their ability to self-regulate their study habits (e.g., Kitsantas & Zimmerman, 2009).

Homework assignments will assess your understanding of the material covered in the lectures and assigned readings. The purpose of these homework assignments is to (1) encourage you to complete readings in a timely manner, (2) provide practice applying course concepts to your own lives, and (3) ensure that you are prepared to participate meaningfully each week during our class sessions.

Exams

Students will complete three exams, all **in-person**. Students are responsible for all material covered in-person class sessions and assigned readings. The purpose of these exams is to assess your ability to not only understand course concepts, but also to think critically about them in the context of existing research and to apply knowledge of the concepts to real-life events.

Synthesis Project

Students will be asked to create a video presentation that evaluates the strengths and weaknesses of an existing empirical finding in the field of psychology. The purposes of this assignment are to encourage you to (1) synthesize your knowledge of statistical concepts learned throughout the semester, (2) apply your understanding of the scientific method to evaluating scientific reports, (3) practice making appropriate inferences from psychology research.

References

Credé, M., Roch, S. G., & Kieszczynska, U. M. (2010). Class attendance in college: A meta-analytic review of the relationship of class attendance with grades and student characteristics. *Review of Educational Research, 80*, 272-295.

Kitsantas, A., & Zimmerman, B. J. (2009). College students' homework and academic achievement: The mediating role of self-regulatory beliefs. *Metacognition and Learning, 4*, 97-110.

✓ Grading Information

Weighting of Grades

Assignment	CLO Assessed	Percent of Final Grade
Homework	1, 2, 3, 4, 8	10%
Participation	1, 2, 4, 6, 7	20%
Final Project	1, 2, 5, 8	25%
Exams	1, 2, 6, 7, 8	45%

Final Letter Grade Scale

A plus: 97.00 to 100.00%	A: 93.00 to 96.99%	A minus: 90.00 to 92.99%
B plus: 87.00 to 89.99%	B: 83.00 to 86.99%	B minus: 80.00 to 82.99%
C plus: 77.00 to 79.99%	C: 73.00 to 76.99%	C minus: 70.00 to 72.99%
D plus: 67.00 to 69.99%	D: 63.00 to 66.99%	D minus: 60.00 to 62.99%
F: ≤ 59%		

Course Policies

1. I will not change grades unless there is a clerical error in the calculation of your grade.
2. **Requesting extensions:** If you encounter an **unexpected** emergency outside of your control (e.g., COVID infection, eviction from your home, daycare closure, etc.) and you would like to request extension on an assignment, please email me with as much notice as possible in **advance** of the

assignment deadline. **No late assignments will be accepted unless a request for extension has been approved prior to the original assignment deadline.** Although contacting me does not guarantee that your request will be approved, know that I take all requests seriously and will work with you to find appropriate resources and a path forward for completing your coursework. Exams, homework assignments, projects, and in-class activities that are not submitted within the agreed-upon time frame will result in a 0% for that exam, homework assignment, project, or activity.

Please note that my flexibility with respect to deadlines relates to emergencies **beyond your control**, and that this flexibility does not apply to vacation travel, conflicts with your work schedule, or other foreseeable circumstances that are within your control. I expect you to act ethically and honorably.

- 3. Late assignments and exam make-ups:** Homework assignments and your synthesis project must be submitted by the indicated due date and time unless I have approved an extension (see above). For each 24-hour period that your homework or synthesis project is late, your score will drop 10% (100% will become 90%). For example, if you submit a homework assignment two hours late, your grade will drop by 10%, and if you submit it 25 hours late, your grade will drop by 20%, and so on. In-class activities must be completed and submitted during the class session that it is assigned with no exceptions unless you have contacted me prior to the class session that you will be missing. No make-up exams will be given unless an extension has been approved **prior to the exam date**.
- 4. Office hours:** Please take advantage of office hours to speak with me about anything related to this course, your research or career interests, or anything else that I may be able to help with. The more I know about how my students are doing and what they are thinking, the better I can ensure that the course will be an engaging and interesting experience. Please [book an appointment online](https://christina-tzeng.youcanbook.me) at <https://christina-tzeng.youcanbook.me> if you want to meet with me. If you cannot make my weekly office hours, please email me to schedule an appointment.
- 5. Academic integrity:** Cheating, plagiarism, or any form of academic dishonesty, including submitting A.I.-written content as your own, will not be tolerated. You are expected to work independently and on all homework assignments, exams, and projects. Any submitted work must be entirely your own and be based only on the course materials provided to you (textbook, lectures, in-class activities). All student-submitted work may be checked using plagiarism and A.I.-generated content detectors.

Any course material that is posted on Canvas (PowerPoint slides, exams, homework questions, project assignments) are for your own private, educational purposes and **cannot be shared at any point in time**, even after the semester ends.

If I find evidence of academic misconduct (e.g., working with another student on assignments or exams, posting any course material online, plagiarizing, using A.I.-generated content), you will receive a 0% on the assignment(s) in question without an opportunity to repeat the assignment, and I will file a report with the Office of Student Conduct and Ethical Development. Please visit the [office's website](#) for more information at <https://www.sjsu.edu/studentconduct/policies/>.

- 6. Accommodations:** If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with

me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must [register with AEC](https://www.sjsu.edu/aec/) at <https://www.sjsu.edu/aec/> to establish a record of their disability. [Academic Senate Policy F06-2](https://www.sjsu.edu/aec/docs/F06-2.pdf) at <https://www.sjsu.edu/aec/docs/F06-2.pdf>

7. **Statement of Inclusion and Diversity:** We all have diverse personal experiences, identities, and values that affect how we view the world. I hope that we can embrace this diversity and work together to ensure each student feels like a valued member of the learning community. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, immigration status, ethnicity, race, and culture. It is also my intent that students from all backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as an asset.

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

Note: This course schedule is subject to modification (with fair warning) as the instructor deems necessary.

Module	Date (in-person class sessions)	Topics	Assignments Due* [Homework (HW)]
0	Th 1/23	Welcome & Course Orientation	
	Tu 1/28	Why Research Matters	
	Th 1/30	Why Research Matters	· Complete Orientation Assignments (HW0; due on 1/31)

Module	Date (in-person class sessions)	Topics	Assignments Due* [Homework (HW)]
1	Tu 2/4	Science as a Way of Thinking	· Read assigned textbook pages before class
	Th 2/6	Science as a Way of Thinking	· Complete HW1 (due on 2/7)
	Tu 2/11	The Scientific Method	· Read assigned textbook pages before class
	Th 2/13	The Scientific Method	· Complete HW2 (due on 2/14)
	Tu 2/18	Reading Scientific Articles	· Read assigned article before class
	Th 2/20	Individual Check-Ins	
	Tu 2/25	Ethics in Behavioral Research	· Read assigned textbook pages before class
	Th 2/27	Ethics in Behavioral Research	· Complete HW3 (due on 2/28)
	Tu 3/4	Exam Review	
	Th 3/6	Exam 1	

Module	Date (in-person class sessions)	Topics	Assignments Due* [Homework (HW)]
2	Tu 3/11	Validity and Reliability	· Read assigned textbook pages before class
	Th 3/13	Validity and Reliability	· Complete HW4 (due on 3/14)
	Tu 3/18	Correlation and Causation	· Read assigned textbook pages before class
	Th 3/20	Correlation and Causation	· Complete HW5 (due on 3/21)
	Tu 3/25	Observational Methods	· Read assigned textbook pages before class
	Th 3/27	Observational Methods	· Complete HW6 (due on 3/28)
	Tu 4/1	No Class (Spring Break)	
	Th 4/3	No Class (Spring Break)	
	Tu 4/8	Survey Methods	· Read assigned textbook pages before class
	Th 4/10	Survey Methods	· Complete HW7 (due on 4/11)
	Tu 4/15	Exam Review	
	Th 4/17	Exam 2	

Module	Date (in-person class sessions)	Topics	Assignments Due* [Homework (HW)]
3	Tu 4/22	Experimental Methods	Read assigned textbook pages before class
	Th 4/24	Experimental Methods	Complete HW8 (due on 4/25)
	Tu 4/29	Synthesis Project Meetings	
	Th 5/1	Synthesis Project Meetings	
	Tu 5/6	Quasi-Experimental Methods	· Read assigned textbook pages before class
	Th 5/8	Using Research to Improve Lives	· Synthesis Project due F 5/9
	Tu 5/20	Exam 3 (Final, 1:00 pm - 2:15 pm)	

*Homework assignments are due on Canvas at **11:59 pm PST on Fridays**, unless otherwise noted. Reading assignments are also meant to be completed prior to coming to class on Tuesdays. Please see Canvas for specific textbook pages assigned.