

# Advanced Research Methods in Psychology

## Section 40

### PSYC 118

Spring 2024 3 Unit(s) 01/24/2024 to 05/13/2024 Modified 01/24/2024

## Contact Information

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Instructor:	Sisi Dong
Office Location:	TBD
Email:	sisi.dong@sjsu.edu
Office Hours:	Th 12:00 – 1:00 pm or by appointment
Class Days/Time:	Lecture PSYC 118 - 40: Tu Th 9:00 - 9:50 am Lab PSYC 118 - 41: Tu 10:00 - 11:50 am Lab PSYC 118 - 42: Th 10:00 - 11:50 am
Classroom:	Lecture: DMH165 Lab: DMH236

## Course Information

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### Course Format

This is an in-person course. You are expected to attend the lecture and the lab session in person.

# CANVAS and MYSJSU Messaging

Copies of some course materials such as the syllabus, major assignment handouts, etc. may be found on Canvas. Messages to the class may be sent through Canvas or MYSJSU.

## Course Description

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

## Course Description and Requisites

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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

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### Classroom Protocol

Students are expected to maintain a level of professional and courteous behavior at all times. You are required to put your cell phone and other distractions away before the beginning of class. I expect you to be respectful of your fellow classmates and to receive the same respect in return. This includes introducing distractions and unrelated comments during class. Students not abiding by these policies will be asked to leave the class.

### Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's catalog, <https://catalog.sjsu.edu/>, policy section. The new Add/Late Drop Policy, S22-6, will be implementing a new combined Add/Drop deadline of **September 15** this fall. Find additional information here; Undergraduate Late Drop and Semester Withdrawal.

Information about the latest changes and new is available at the Advising Hub at <https://www.sjsu.edu/advising/>

### Attendance

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.

*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."*

## Program Information

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**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)

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Upon successful completion of this course:

- CLO1 – Students will be able to design, implement, and communicate basic research methods in psychology, including research design, data analysis, and interpretations.
- CLO2 – 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.
- CLO3 – Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

## Course Materials

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# Required Texts/Readings

Bhattacharjee, A. (2012). *Social science research: Principles, methods, and practices*. (A free open educational resource available online in pdf: [https://digitalcommons.usf.edu/oa\\_textbooks/3/](https://digitalcommons.usf.edu/oa_textbooks/3/))

American Psychological Association. (2009). *Publication manual of the American Psychological Association* (7th Ed.). Washington, DC: American Psychological Association. ISBN: 1433805618

## Recommended Reading

Cozby, P.C., & Bates, S. (2020). *Methods in Behavioral Research*, 15th edition, McGraw Hill education. ISBN 9781260205589

## Learning Tools

Psych Learn – Research Methods will be our source for content text this course. Access to materials will be available within canvas. You may purchase access within Canvas, Campus Book Store, or any other source.

Academic Writer – An APA learning tool that will be used to assist in writing an APA research report. You may purchase access within Canvas, Campus Book Store, or any other source.

## Library Liaison (Optional)

The SJSU library has a librarian who specializes in psychology (and other social sciences), and this librarian can serve as a very valuable resource for helping you to develop research ideas and locating appropriate research materials. The library also has an abundance of resources for doing psychology research: Christa Bailey, 408-808-2422, [christa.bailey@sjsu.edu](mailto:christa.bailey@sjsu.edu), <http://libguides.sjsu.edu/psychology>

## Course Requirements and Assignments

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Quiz: 5 \* 3 points = 15 points

Group Activity: 3 \* 5 points = 15 points

Assignment: 2 \* 10 points = 20 points

Presentation: 1 \* 15 points = 15 points

Final Paper: 1 \* 25 points = 25 points

Final Exam: 1 \* 10 points = 10 points

## Grading Information

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Assignments and Grading Policy

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in University Policy S12-3 at <http://www.sjsu.edu/senate/docs/S12-3.pdf>. Expect that your grades in Canvas will continue to change throughout the semester. *Do not contact me at the end of the semester asking if I will round up your grade. I want all of my students to do well and will always round grades up (not down) when possible.*

In lectures we will learn advanced research methods using in-class activities, question-and-answer periods, demonstrations, and films. During the laboratory section we will be learning how to apply the principles of advanced research methodology directly into a complete research experiment, write-up and presentation. Attendance is critical for success in this course. If you miss a class, **you** are responsible for the information from that class. It is vital that you complete all scheduled readings and assignments before each class.

The primary methods of assessment for this course will be a completed research report, research proposal, class presentation of research project, quiz, group activities, and final exam. The point value for each of the assignments can be found in the grading policy. Information about dates are included in the Course Calendar. Please note that the course calendar is tentative course calendar and "subject to change with fair notice" including assignment due dates, exam dates, date of final exam; you might want to include as well. I promise you, no surprises!

It should be noted that the Academic Vice President in a memorandum dated October 25, 1977, cites a university policy that states that there shall be an appropriate final examination or evaluation at the officially scheduled time in every course, unless specifically exempted by the college dean who has curricular responsibility for the course.

## Laboratory

Lab attendance is critical to the successful completion of this course. Students will need access to a laptop during lab periods. If you do not have a laptop, you may borrow one from the Student Computing Center in the SJSU library. We will be using Qualtrics to create our online experiments. Qualtrics is available through e-campus. We will also be using Excel, available to all SJSU students, for data management and analysis.

Students will participate in creating a research project conducted over the span of the course. The project will be done in collaboration with research group members. Research groups will be created and meet during lab time. Research groups will be connected in CANVAS with a group web page to support the use of Google collaboration. Please note that group members must be registered for the same lab section.

Each laboratory assignment is designed to prepare you to successfully complete your research proposal, study, and report write-up. Lab work is graded as complete or incomplete, failure to participate in each step will interfere with your ability to complete the research project. Team participation in lab work is required. If you do not contribute to the project in a substantive way, you are taking advantage of others (hanger-on, cadger, freeloader, moocher, lounge lizard, etc.) Participation will be assessed by group evaluations at the end of the semester. Research group evaluations influence your course grade up to a full letter grade.

If you know that you will be unable to consistently attend your scheduled laboratory section, do NOT take this class.

As per University policy F69-24 found at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states that "Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading."

### Determination of Grades

Grade	Points
A	93 – 100pts
A-	90 - 92.9pts
B+	87 - 89.9pts
B	83 - 86.9pts
B-	80 - 82.9pts
C+	77 - 79.9pts
C	73 - 76.9pts
C-	67 - 72.9pts
D	60 - 66.9pts
F	59.9pts and below

## University Policies

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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) (<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

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	Meeting Type	Topics, Readings	Assignment (All due <b>Friday</b> )
Week 1 1.24 – 1.26	Lecture	Introduction  Syllabus & Calendar	
	Lab	Introduction to Lab session	
Week 2 1.29 – 2.02	Lecture	Introduction to Behavioral Research  Research Questions, Hypothesis	
	Lab	Individual Activity 1: RQ brainstorming, and possible literature  Group Activities assignment preference	
Week 3 2.05 – 2.09	Lecture	Research Fundamental  Ethics in Behavioral Research	
	Lab	Individual Activity 2: Ethical consideration  Library Reference Lab	<b>Quiz #1</b>
Week 4 2.12 – 2.16	Lecture	Measurement and Sampling	
	Lab	Individual Activity 3: Possible Measure for your RQ	<b>Assignment 1: Possible RQ</b>

Week 5 2.19 – 2.23	Lecture	Observational Studies Qualitative Research	
	Lab	Individual Activity 4: Coding qualitative data activities	Quiz #2
Week 6 2.26 – 3.01	Lecture	Survey	
	Lab	Group Activity 1: Survey Activity	GA1 submission
Week 7 3.04 – 3.08	Lecture	Experimental Design Conducting Experiments	
	Lab	Group Activity 2: Research Question and Design matching activity.	GA2 submission
Week 8 3.11 – 3.15	Lecture	Complex Experimental Design Single-Case, Quasi-Experimental, and Developmental Research	
	Lab	Individual Activity 5: what is your project design?	Quiz #3
Week 9 3.18 – 3.22	Lecture	Reliability and Validity	
	Lab	Group Activity 3: Article validity critique	GA3 submission
Week 10 3.25 – 3.29	Lecture	Understanding Results: Description and Correlation	
	Lab	SPSS: descriptive and correlation	Assignment 2: Project Proposal



Week 11 4.01 – 4.05	Spring Break		
Week 12 4.08 – 4.12	Lecture	Understanding Results: Inferential	
	Lab	SPSS: T test, ANOVA	Quiz #4
Week 13 4.15 – 4.19	Lecture	Understanding Results: more	
	Lab	SPSS: Linear Regression	
Week 14 4.22 – 4.26	Lecture	Presentation	
	Lab	Presentation/Open lab Q&A	Quiz #5
Week 15 4.29 – 5.03	Lecture	Presentation	
	Lab	Presentation/Open lab Q&A	
Week 16 5.06 – 5.10	Lecture	Presentation	
	Lab	Presentation/Open lab Q&A	Final Project Due
Final Week 5.13 – 5.17	Lecture	Final Exam	
	Lab		