



San José State University

Department of Psychology

PSYC 118-20, 21

Advanced Research Methods (23740/23741), Spring 2024

Instructor: Jill Citron, PhD

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Phone Number: (408) 924-5606 (*Messages Only*)

Drop-In Hours: Monday and Thursday, 11:00 am – 11:50 am and by appointment.

Office Location: DMH 352

Class Days/Time/Location: Lecture: 118-20, Monday and Wednesday, 12:00 pm – 12:50 pm, DMH 356

Lab: 118-21, Wednesday 1:00 pm – 2:50 pm- DMH 339

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.

Prerequisite: lower division GE complete; PSYC 1; STAT 95; PSYC 100W with 'C' or better (or department approval); Upper Division; Psychology or Behavioral Science Major

Lecture/Lab: 3 Units

Communication with Instructor

Use email, office hours, or class time to ask questions. I respond to email M-F 9:00-5:00. Please allow 1-2 days for a response. When emailing, include a relevant title and our course number (118-30/31 and lab section number if relevant). Phone calls are for leaving a *voice mail only*. If you have extensive questions about an assignment or class work, drop into office hours or make an appointment for a different time that fits your schedule.

Course Goals and Student Learning Outcomes (CLOs)

Upon successful completion of this course, Psych 118 students will be able to:

- CLO 1:** Understand how psychology is a science in which people seek to gain knowledge about behavior and mental processes by running experiments and other types of studies. *Assessment for this CLO will be in class activities, review of literature, and Research Report.*
- CLO 2:** Understand how the scientific method is used in psychological research. *Assessment for this CLO will be assessed by class activities, and participation in the research process.*
- CLO 3:** Understand the differences between the different types of studies and different types of research designs used in psychological research. *Assessment for this CLO be in class activities, review of literature, assignments, and midterm.*
- CLO 4:** Understand why different research methods are needed for different research situations. *Assessment of this CLO will be conducted with preparation assignments, class activities, and research proposal..*
- CLO 5:** Understand and know the advantages and disadvantages of specific research methods. *Assessment of this CLO will be conducted class activities.*
- CLO 6:** Understand and know the vocabulary associated with psychological research methods. *Assessment of this CLO will be class and laboratory activities.*
- CLO 7:** Understand how to treat research participants ethically and why the ethical treatment of participants is important and necessary. *Assessment of this CLO will be class and lab activities, and midterm.*
- CLO 8:** Understand the factors that can affect the ability of a research study to provide a sound answer to a researcher's question and how to reduce or eliminate these factors. *This CLO will be assessed by class assignments, research proposal, and research report.*
- CLO 9:** Understand why statistics are important and needed in psychological research. *Assessment of this CLO will be assessed by class assignments, research development, and midterm.*

- CLO 10:** Understand the meaning of statistical significance. Assessment of this CLO will be class activities, research process, and the Final Exam.
- CLO 11:** Conduct statistical analyses and interpret the results. *This CLO will be assessed by laboratory assignments, class activities, research report, and APA poster.*
- CLO 12:** Understand the limitations of the results of studies and draw appropriate conclusions from the results of research studies. *This CLO will be assessed by laboratory assignments, the research report, and APA poster.*
- CLO 13:** Carry out a research study from beginning to end (including writing a research report). *This CLO will be assessed by the research report and APA poster.*

Program Learning Outcomes (PLOs)

Upon successful completion of the psychology major requirements, students will be able to:

- PLO1:** Knowledge Base of Psychology- Students will be able to identify, describe, and communicate the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- PLO2:** Research Methods in Psychology- Design, implement, and communicate basic research methods in psychology, including research design, data analysis, and interpretations.
- PLO3:** Critical Thinking Skills in Psychology- 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.
- PLO4:** Application of Psychology- Students will be able to apply psychological principles to individual, interpersonal, group, and societal issues.
- PLO5:** Values in Psychology- Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

The learning goals for this course fall into four categories that follow the construction of a research report. Learning outcomes for the first part of the course describes how the psychological sciences seek to gain knowledge about behavior and mental processes by running experiments and other types of studies. The second category will cover how scientific methods are used in psychological research. The third category will cover why statistics are important and needed in psychological research, choosing the appropriate statistical analyses, and interpret the results. The final goal is to apply our learning by carrying out a planned research experiment with a full research report and presentation.

It is strongly recommended that students **use the Chrome Web Browser when using Canvas**. Using the latest version of Chrome will decrease the number of glitches and errors you experience, as Canvas was developed using the Chrome platform. **Note:** clearing your cache may help if you have trouble logging into the site.

In addition, update your Canvas setting to receive messages from this course, as announcements are sent out on a regular basis.

Accessing Course Canvas site

To access the Canvas site go to <http://www.sjsu.edu/at/ec/canvas/> and click on “Log in to Canvas”

Username = *SJSU 9-digit ID*

Password = *your current SJSUOne password*

For additional information or help with logging in:

Canvas Student Tutorial: <http://www.sjsu.edu/at/ec/canvas/>

Required Learning Tools

Our textbook this semester is open source, written by our department’s own David Schuster, Ph.D.!

<https://www.davidschuster.info/books/methods/index.html>

Library Liaison

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, <http://libguides.sjsu.edu/psychology>

Classroom Protocol

Students are expected to always maintain a level of professional and courteous behavior. 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 Late Drop Policy is

available at <https://www.sjsu.edu/aars/policies/latedrops/policy/>. This semester the last day to add a class or drop a class without a “W” is February 19th.

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. If you miss two or more lab sections, you may be dropped from class.

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.”

Assignments and Grading Policy

SJSU classes are designed such that 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 my students to do well and will always round grades up (not down) when possible. At the end of the semester, refrain from contacting me about rounding up your grade. I will know that you have not read the syllabus. ☺

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, participation in peer review, one quiz, and final exam. The point value for each of the assignments can be found in the grading policy. Information about dates is 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! ☺

Laboratory

Lab attendance is critical to the successful completion of this course. The computer lab will provide access to computers during lab periods, so you do not need to bring your own device. If you want but do not have a laptop, you may borrow one from the Student Computing Center in the SJSU library.

We will be using different software during this course. It will provide you with experience in software and programming that will help you in your next step beyond college. (1) Qualtrics is available through e-campus. We will use the (2) APEX program to review for out statistical analysis. We will also use (3) Excel and (4) SPSS, open to all SJSU students, for data management and analysis.

Students will complete most of the project in collaboration with another student. Researchers meet during lab time in addition to meeting outside of class. Research groups will be connected in CANVAS using Google Collaboration to support group work. As a reminder, your research group will evaluate you at the end of the semester.

Each laboratory assignment prepares you to complete your research proposal, study, and report—grading lab work 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.) Group evaluations will assess participation at the end of the semester. Researcher evaluations, at the end of the semester, may influence your grade by an entire letter grade. This policy should not be confused with “life,” the day-to-day challenges we all experience.

If you know you cannot commit to attending every laboratory meeting, do NOT take this class.

If you have concerns about making this commitment, please see me.

Definition of a Credit Hour

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course. As an example, the expectation of work for a 3-credit course is 150 minutes of direct faculty instruction and six-hours of out-of-class student work each week.

Please review the following sources and policies, as well:

- University Syllabus Policy S16-9 at <http://www.sjsu.edu/senate/docs/S16-9.pdf>
- Office of Graduate and Undergraduate Programs' Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo/>

Testing

There will be one midterm and two smaller assignments throughout the semester to ensure that all students have a solid understanding of the material being covered. The final exam period will be used for research group evaluation during the research process.

Research Project

You and your research team will develop an original research hypothesis guided by parameters set by the instructor. Project work will take place during lab, lecture, and outside of class time.

Each research group will submit a full research proposal, collect, and analyze their group data, write a professional level APA-style research report, and give a quality presentation of your research findings. The paper will be a **minimum of 12 pages** in length (not including references, double-spaced, typed, 12-point font) and include a minimum of **15+ peer-reviewed, scholarly references**. Each group will need to decide how to divide the writing of the proposal, recruitment, and data collection (along with deciding how to divide all the other responsibilities involved in completing the project). The research proposal is a shared project.

Your final report will include shared group work and individual work. The title page, abstract, and discussion of your final paper submission must be your own independent work. The introduction, methods, and results may be shared with your group members.

Plagiarism of any kind will not be tolerated. Please refer to the section on Academic Integrity for information about the consequences of plagiarism. You must cite all the sources that your information comes from and use quotations when you are directly quoting information from a source.

APA Poster Creation

You will create an APA poster outlining your project and findings. Clear instructions will be provided on Canvas and reviewed in class. Your poster will be submitted in Canvas and into a Google Slide show. This will allow us to make a gallery of posters to share with the class.

Research Partner Evaluation

Students will confidentially evaluate each of their group members for participation, cooperation, collaboration, work quality, and reflection. Students receiving low marks from their peers on this evaluation may have their final project grade reduced by a full letter grade. The group evaluation survey will be completed on the day of the final exam. Peer evaluations are considered part of the final project grade. Not completing peer evaluations will result in lost points.

Make-up Exams and Late Assignments

Please check your schedule to ensure that you have no conflicts with due dates. If you need an extension, contact me as soon as possible so that we can create an alternative plan. Depending on the situation, documentation of the emergency or prior approval may be needed.

Academic Integrity

Academic integrity is essential to the mission of San Jose State University. As such, students are expected to produce their own work (except when collaboration is expressly permitted by the course instructor) without the use of any outside resources. Students are not permitted to use old tests, quizzes when preparing for exams, nor may they consult with students who have already taken the exam. When practiced, academic integrity ensures that all students are graded fairly. Violations to the Academic Integrity Policy undermine the educational process and will not be tolerated. It also demonstrates a lack of respect for oneself, fellow students, the course instructor, and can ruin the university's reputation and the value of the degrees it offers. The Student Conduct and Ethical Development is available at <https://www.sjsu.edu/studentconduct/>.

Completing the library guides on avoiding plagiarism and paraphrasing will help you identify plagiarism and how to avoid it. If you have any questions, do not hesitate to ask me.

Submission through Turn-It-In is required for all written assignments. Turn-It-In is embedded into our Canvas course, so no need to go to a different website. Assignments not submitted using Turn-It-In, will not be graded until the problem is fixed. Work with IT to resolve any program issues that you may be having.

A reminder about academic integrity and Chat GPT: All cases of academic misconduct will be referred to the Office of Student Conduct. Academic Misconduct includes (but is not necessarily limited to) using ideas, words, images, or content in any other media that you did not create and presenting that content as if you were the creator.

Copying content that you have not created—either directly or in a modified form—without properly acknowledging the creator qualifies as academic misconduct, as does utilizing unauthorized digital tools such as artificial intelligence to create content. An assignment that is found to have been plagiarized or to have used unauthorized tools will automatically receive a zero and you will not be given an opportunity to repeat the assignment for a passing grade. Depending on the severity of the case, academic misconduct may result in a failing grade in the course.

A simple guide to follow is, if more than four words are taken from another source, it must be cited

GRADING INFORMATION AND MAJOR ASSIGNMENTS:

Your final grade will be based on the number of points that you earn during the semester. The following table provides a breakdown of the points that you can earn during the semester.

Assignment	How Many?	Points Per Assignment	Total Points	Approximate % of Final Grade
Name Coach	1	5	5	2%
Laboratory Activities	5	10	50	20%
Class Participation Activities	5	5	5	2%
Hypothesis & Data Visualization	2	5	10	4%
Midterm	1	20	20	8%
APA Poster- Individual	1	30	30	12%
Research Proposal-Group	1	30	30	12%
Research Paper-Individual	1	100	100	38%
Peer Review	1	10	10	4%
Total:			260	100%

Grading Scale:

Percent	Grade
100 - 94	A
93 - 90	A-
89 - 87	B+
86 - 84	B
83 - 80	B-
79 - 77	C+
76 - 74	C
73 - 70	C-
69 - 67	D+
66 - 64	D
63 - 60	D-
59 or below	F

University Policies: Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>.

Student Resources

Student Computer Resources –

Computer labs and other technological resources for students can be found in various places on campus:

- For information regarding the loan of laptops, tablets, and other computer materials; <https://library.sjsu.edu/student-computing-services/student-computing-services>
- For IT Support visit - <https://www.sjsu.edu/it/support/service-desk/index.php>
- For a list of software available to all SJSU students visit - <https://library.sjsu.edu/student-computing-services/software-available>

ACCESS Success Center

The Academic Counseling Center for Excellence in Social Sciences (ACCESS) Success Center “provides general education advising for undergraduate students majoring or intending to major in any of the departments in The College of Social Sciences.” Visit their webpage for more information and to schedule an online appointment, <https://www.sjsu.edu/education/studentsuccesscenter/advising-and-tutoring.php>.

Accessible Education Center (AEC)

Ability Redefined - Please reach out to me as soon as possible in the beginning of the semester, for any support. “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 to establish a record of their disability. ” [Academic Senate Policy F06-2 \[pdf\]](#)

SJSU Peer Connections

Peer Connections website “offers free mentoring, tutoring, and supplemental instruction services for students at SJSU. Peer Educators are students just like you; they understand the triumphs and challenges of being a student at San José State University.” If you have questions about services, contact the Peer Connections at 408-924-2587 or email at peerconnections@sjsu.edu, or visit their webpage for more information, <https://peerconnections.sjsu.edu/programs/tutoring/index.html>

SJSU Writing Center– Check for different ways to access these services during the COVID-19 SIP.

The SJSU Writing Center “offers a variety of resources to help students become better writers, and all of our services are free for SJSU students.” If you have questions about services, call the Writing Center at 408.924.2308 or email us at writingcenter@sjsu.edu, or visit their webpage to make an online appointment <https://www.sjsu.edu/writingcenter/>

SJSU Counseling and Psychological Services (CAPS)

SJSU Counseling and Psychological Services invites “all students to come into Counseling and Psychological Services, located at the Student Wellness Center, room 300B, for any support. If you have questions about services, contact CAPS at (408) 924-5910 or email at counseling.services@sjsu.edu or visit their webpage, <https://www.sjsu.edu/counseling/> Currently offered is a Therapist Assisted Online <https://www.sjsu.edu/counseling/students/TAO/index.html> “Therapy anytime, anywhere for anxiety and depression on your mobile device”.

Student Support Services-

Housing Assistance for students that lack stable and adequate housing <https://www.sjsu.edu/sjsucares/get-assistance/housing.php>

Spartan Food Pantry is a walk-in full-service food assistance program for qualifying students.

<https://www.sjsu.edu/sjsucares/get-assistance/spartan-food-pantry/index.html>

CalFresh Foods offers monthly cash assistance to pay for groceries. CalFresh has supported many students who are experiencing budget restraints. <https://www.sjsu.edu/sjsucares/get-assistance/calfresh.php>

Each exam will focus on applying the knowledge learned in the previous part of the course. The third exam is a cumulative final exam. Your cumulative final exam grade will replace any lower grade on previous exams.

Major Assignments

Below is a list of important course events. Clear instructions for each assignment are posted on Canvas. This list will help you in preparing for major assignments. Remember that there may be modifications in the schedule over the semester. It is your responsibility to keep track of these changes.

Research Proposal

Due: Sunday, March 3

Submit a polished research proposal. Present your hypothesis, why it is relevant, logical support for your experiment presented in a literature review. Included will be your complete methodology, plan for statistical analysis, and materials that will be used in your experiment.

Midterm

Date: Wednesday, March 27th

In class, bring Scantron and #2 pencil.

Demonstrate a clear understanding of the need for scientific method and psychological science.

Explain the basis of the IRB process and how to identify scientific fraud. Alternatives to experimentation, survey, formulating a hypothesis, types of variables, validity, and reliability.

APA Poster Presentation

Due: Sunday, April 28th

Present a group presentation that demonstrates understanding of choosing an appropriate study design, interpretation of statistical findings, present study strengths and limitations, and potential avenues for future research.

Research Report

Due: Sunday, May 5th

Submit a polished research report in APA style. The completed report will present the statistical analysis and interpretation on the data you have collected.

Peer Review

Date: Sunday, May 17th at 9:45 am – 12:00 pm

Required

A more traditional, detailed schedule of class days, topics, activities and are overall schedule will be available for our first in person meeting on Monday, January 29th