SJSU SAN JOSÉ STATE UNIVERSITY

College of Social Sciences · Psychology

Advanced Research Methods in Psychology Section 10 PSYC 118

Fall 2023   3 Unit(s)   08/21/2023 to 12/06/2023   Modified 08/22/2023

🖥 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.

Letter Graded

✳ Classroom Protocols

How to best support learning (for *you* and *me*).

Reading & Quizzes. Reading the assigned chapter(s) prior to the lecture will enable students to do well on the content quizzes and get the most out of our class time together. Specifically, engaging with the assignments and reading the materials prior to class will make in-class activities more effective for learning, provide opportunities to clarify concepts, and ultimately facilitate students' ability to successfully complete course assignments.

Attendance & Participation. It is very important for students to attend all class sessions as they are responsible for the information shared, material discussed, and in-class activity assignments. Furthermore active participation is frequently essential to ensure maximum benefit to all class members, including your project team, as it allows you to be better prepared to contribute to your project. You are expected ask questions and engage in thoughtful discussion, and I will work to foster an environment where all students feel comfortable doing so.

Laboratory Sessions: Lab time is dedicated primarily to lab assignments and group work that is due at the end of the session. Students who are not present and actively contributing to lab assignments will not receive credit. Furthermore, not attending the laboratory sessions will impact your final grade in the course via peer and instructor evaluations of project participation as lab assignments are often components of the larger course research project.

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."

Respect. My goals are to create a fun atmosphere where we can all engage in the exciting process of research. Additionally, as an instructor, I strongly believe in supporting and helping students in learning the course material in ways that can be applied to academic and professional careers. Thus, the environment of this classroom must be professional and respectful. You are always expected to respect and be courteous to one another, and this involves being an active listener. This course covers broad range of topics and I expect that there will be differing perspectives throughout activities and/or discussions. This is part of the scientific thinking process, and it is important to recognize the critical value that diverse perspectives bring to the discussion. Racism, bullying, harassment, and any other inappropriate behavior is unacceptable, will not be tolerated, and will be reported.

Academic Honesty. Ethical research is a core topic in this course so it will come as no surprise that students in this course are held to the highest standard of academic honesty. Cheating, plagiarism, and other forms of academic misconduct will be followed up with the rigorous pursuit of disciplinary action. Any incident of academic dishonesty will be immediately reported to the Office of Student Conduct and Ethical Development (SCED) and students may appeal any accusations of academic dishonesty through SCED. Additionally, any plagiarized assignments or incidences of cheating result in an automatic 0 for the assignment. Writing assignments are checked for plagiarism by TurnItIn on Canvas. If an incident of academic dishonesty is particularly egregious, you and your entire team may receive an automatic F in the course.

****ON THE USE OF AI******** Since writing, analytical, and critical thinking skills are primary skill outcomes of this course, all writing assignments should be prepared by the student. Developing strong competencies in this area will prepare you for a competitive workplace. Artificial Intelligence (AI)-generated submissions in any form are not permitted unless express permission is granted. In instances where AI

is allowed, **you may not submit any work generated by AI as your own; material generated by AI must be cited like any other reference material.** Because the information derived from AI tools is based on previously published materials, the use of tools such as ChatGPT to complete course assignments or exams without proper citation is plagiarism and will be considered a violation of academic integrity. By submitting assignments in this class, you pledge to affirm that they are your own work and that you will properly cite your sources. Furthermore, information gathered from such tools requires critical assessment via your own research of peer-reviewed sources, as there have been several instances and examples of such programs publishing verifiably false and inaccurate information.

Late assignments/Extra credit. Late assignments will normally not be accepted except under documented compelling causes and emergencies. If there is a compelling reason for late submission (e.g., illness of yourself or the person you are caring for), no points will be deducted. In that case, **you must contact me before the assignment is due.** Note the due dates in the syllabus and plan accordingly. Extra credit is not normally offered, however, if there is an opportunity for extra credit that arises, it will be announced to the class during a class session

Class Cancellations. Classes may be canceled if the university is closed of if the instructor is unable to attend. If the latter arises, an announcement will be posted to Canvas as soon as possible.

▦ 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: Understand Psychology as a Science and the types of questions that can be answered with psychological research (Week 2: Lectures, Modules 1 - 4, Lab 1 and 2)

CLO2: Understand key challenges in Psychological Research (Week 2 and 3: Lectures, Modules 1-4, Labs 1 - 4)

CLO3: Understanding and ability to conduct ethical research (Week 3: Lecture, Modules, and Lab 2)

CLO4: Demonstrate ability to develop and design research questions and hypotheses (Week 4: Lectures, Modules, and Labs 3 & 4)

CLO5: Knowledge of different methodologies and designs and their pros and cons (Week 4, and 6 – 8: Lectures, Modules, and Lab 3 -6)

CLO6: Ability to select a methodology appropriate for a given research question (Week 4, and 6 – 8: Lectures, Modules, and Lab 4 -7)

CLO7: Ability to understand and conduct analyses appropriate for a given research question (Week 10, Lectures, Modules, Lab 8)

CLO8: Demonstrate ability to interpret statistical analyses (Week 10: Modules, Lab 8, Final Project)

CLO9: Understand limitations to different research studies (Lab 4, Final Project)

CLO10: Ability to draw conclusions based on research (Final Project)

CLO11: Ability to present written and verbal presentations of research (Final Project)

CLO12: Ability to conduct research (Final Project)

▤ Course Materials

We are using an open access book for the reading portion of the course (that means it's free, woohooo!).

You can access the book at the link below. Simply click the "Download this book" drop down and choose your preferred format (I prefer PDF). You can also buy a hardcopy if you choose, but this is not necessary.

https://kpu.pressbooks.pub/psychmethods4e/

⋮✅ Course Requirements and Assignments

Course Requirements

To be successful in courses at SJSU, 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, so a 3 unit class would be approximately 9 hours 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

Readings/Quizzes

Two of the course requirements are completing course readings and the reading quizzes. You can access the readings via the link in the course materials section of the syllabus, and the quizzes via the Canvas modules. The quizzes will always be due before the scheduled lecture to help foster an environment of learning readiness and maximize the usefulness of class time. Due dates will be listed on the quiz in Canvas. There will not be a quiz for every chapter, and some quizzes may be replaced with in-class activities.

Peer Evaluations

Your final assignment for the course will involve completing confidential peer evaluations.

Following the paper submission and team presentation, you will complete peer evaluations, where you will rate each member of your group, and you will be rated based on contributions for the duration of the research process and project. Poor ratings on the peer evaluations (which are based on contributions to group work throughout the semester) will result in a loss of points. The number of points lost depends on the overall rating. The evaluation form will provide a description of the number of points lost for different ratings. If you do not contribute to the project meaningfully, you will receive 0 points for the project. Additionally, the instructor may adjust the participation scores of students who do not consistently contribute to lab portions of the project to better reflect their contributions.

It is critical that you come to me early with any concerns about your or your teammates' ability to contribute to the project so that we can problem-solve together in time to ensure everyone is successful in the course.

Group Activities

The assignments below are primarily completed in groups that are selected early in the semester.

Skill Building Labs

Labs are an essential portion of this course. There are a total of 10 labs that will be due for this course. Labs are due at the end of the lab session unless otherwise specified. Each lab is designed to assist you in developing your research project in a step-by-step fashion so that the final presentation and paper are not overwhelming. Labs will often be completed in groups, but will sometimes be submitted individually. If you are unable to attend labs, you will not be able to pass this course. DO NOT TAKE THIS COURSE IF YOU ARE UNABLE TO ATTEND LAB SESSIONS.

Final Project

This course involves conducting a group psychological research project that includes a paper and presentation. The project will be completed both in and outside of class time.

Paper

The paper will be approximately 10-12 pages in length and must be in standard APA format. As mentioned above, many of your labs will help to develop your final paper. A separate file titled Group Paper Instructions will be posted on Canvas for detailed paper instructions and a rubric.

Presentation

The Project Presentation that corresponds to your Applied Paper. A separate file titled Group Presentation Instructions will be posted on Canvas for detailed presentation instructions and a rubric.

✔ Grading Information

Grading Breakdown

Assignments	Number of Assignments and Points per Assignment	Total Percent of Grade

Quizzes or other in-class activities	30 points	7.5%
Labs	120 points (10 labs)	30%
Research Paper	120 points	30%
Research Presentation	120 points	30%
Final Peer Evaluations	10 points	2.5% of grade

Final Letter Grade

Letter Grade	Percentage
A	94 - 100%
A-	90 - 93.99%
B+	87 - 89.99%
B	83 - 86.99%
B-	80 - 82.99%
C+	77 - 79.99%
C	73 - 76.99%
C-	70 - 72.99%
D+	67 - 69.99%
D	63 - 66.99%
D-	60 - 62.99%
F	Less than 60%

🏛 University Policies

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) web page. Make sure to visit this page to review and be aware of these university policies and resources.

📅 Course Schedule

This schedule is tentative and may be changed at any given time. Should a change need to occur, an announcement will be made either in class or on Canvas

Week Module	Course Topic (Modules and Lecture) Pre-Class Quizzes are ALWAYS due the day before the corresponding class session	Labs *Due at end of Lab Period*
Introduction		

1	8/22: Course Introduction · Syllabus · Course Assignments · Canvas 8/24: The Science of Psychology (Ch.1) Research Ethics (Skim Ch. 3)	Lab 1: Getting to Know You
2	8/29 Overview of the Scientific Method (Ch.2 Sect. 7 – 10; **Quiz 1**) and Research Ethics (Skim Ch. 3) 8/31 Overview of the Scientific Method Continued (Research Questions, Hypotheses and Literature Review)	Lab 2: Speed Dates and Research Questions
3	9/5 Finalizing your Research Question, and the Literature Review 9/7 Overview of the Scientific Method (Ch. 2 Section 11 – 14, Variables, Sample, and Designing a Research Study)	Lab 3: Finalizing your RQ & Lit Review
4	9/12 Group work 9/14 Group Work	Lab 4: **Introduction** **Due 9/14**
METHODS		
5	9/19 Samples and Psychological Measurement (Ch.2 Section 11; Ch. 4, all sections; **Quiz 2**) 9/21 Experimental and Quasi-Experimental Design (Ch. 5 and Ch. 8, all sections;)	Lab 5: Sample, Measures, Study Design
6	9/26 Other Research Designs (Skim Ch. 6, 7, 9, 10) 9/28 Group Work and Proposals Due	Lab 6: **Proposals Due**

7	10/3 Qualtrics, Consent, Advertising 10/5 In Class Proposal meetings; Begin entering info into Qualtrics	
8	10/10 In class launching your study meetings 10/12 In class launching your study meetings	Study Launch: Qualtrics Due 3/16
9	10/17 SPSS Training and Descriptive Statistics (Ch. 12; All Sections) 10/19 SPSS Training and Descriptive Statistics	Lab 8: Planned Descriptive Statistics and Syntax

Results & Discussion (Analyzing, Reporting, Interpreting)

10	10/24 Inferential Statistics (Ch. 13; All Sections) 10/26 Presenting your Research (Ch.11; All Sections; Quiz 3 - Ch. 11 – 13)	Lab 9: Planned Inferential Statistics and Syntax
11	10/31 Analyzing Study Data and Reporting Results 11/2 Analyzing Study Data and Reporting Results (Data Collection Ends)	Lab 10: Results Section
12	11/7 The Discussion and In-Class Group Work 11/9 In-Class Group Work: Working on Discussion	
13	11/14 In-Class Group Work: Discussion & Finalizing Manuscript 11/16 In-Class Group Work: Discussion & Finalizing Manuscript	Final Paper Due 11/16
14	11/21 & 11/23 NO CLASS - TG BREAK	

15	11/28 In-class group work: Working on Presentation 11/30 Presentations	Final Presentations: 11/30 - 12/5
16	12/5 FINAL PRESENTATIONS CONT* 12/7 **NO CLASS - STUDY DAY**	Final Presentations: 11/30 - 12/5
Finals	12/8 9:45 AM – 12:00 PM	Final Exam Date: Final Assignments Due (peer evals)