

Advanced Research Methods in Psychology Section 10 PSYC 118

Fall 2022 3 Unit(s) 08/19/2022 to 12/06/2022 Modified 08/25/2022

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

Expectations

You are expected to complete PsychLearn assignments PRIOR to the class sessions. 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 your ability to successfully complete course tasks.

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. You are expected ask questions, and engage in thoughtful discussion, and I will do my best to foster an environment where all students feel comfortable asking questions and free to express their ideas.

In regards to the laboratory sessions specifically, this time is dedicated to group work and you are expected to be present and contribute. You will not receive credit for assignments you do not contribute to. Furthermore, not attending the laboratory sessions will impact your final grade in the course via peer and instructor evaluations. Not attending the lecture sessions will have an impact on your grade due to not being prepared for the laboratory assignments.

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 an engaging and 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

You are held to the highest standard of academic honesty. Academic dishonesty is unacceptable and not tolerated in this course. 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.

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. Under such circumstances, the closure will be announced on the university website. Classes may also be canceled if the instructor is unable to attend. In that case, an announcement will be posted to Canvas.

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

CLO2: Understand key challenges in Psychological Research

CLO3: Demonstrate ability to develop and design research questions and hypotheses

CLO3: Knowledge of different methodologies and designs and their pros and cons

CLO4: Ability to select a methodology appropriate for a given research question

CLO5: Understanding and ability to conduct ethical research

CLO6: Ability to understand and conduct analyses appropriate for a given research question

CLO7: Demonstrate ability to interpret statistical analyses

CLO8: Understand limitations to different research studies

CLO9: Ability to draw conclusions based on research

CLO10: Ability to present written and verbal presentations of research

CLO11: Ability to conduct research

Course Materials

PsychLearn: Research Methods

Publisher: American Psychological Association

ISBN: 9781433834110

Availability: Campus Bookstore, Online via Publisher, Canvas

PsychLearn Research Methods: This material will be utilized as the reading content for the course. Access to materials can be gained via directly via the publisher, Canvas, or the campus bookstore

☰ Course Requirements and Assignments

Course Requirements

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, 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/Modules

Part of the course requirements include completing PsychLearn modules/readings. You can access these via the Canvas modules. There are a total of 12 PsychLearn modules that you can earn credit for. Each PsychLearn module is to be completed by midnight the day before the class session which it is listed in the course calendar (due dates are on Canvas). Each Module is worth 10 points. You will earn a percentage of points based on your completion score (100% = 10 points).

Peer Evaluations

Your final assignment for the course will involve completing confidential peer evaluations and a brief reflection.

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. 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. A description of the number of points lost for different ratings will be provided on the evaluation form. If you do not contribute to the project meaningfully, you will receive 0 points for the project.

It is critical that you come to me early with any concerns about your ability to contribute so that we can problem solve together in time to ensure you earn an acceptable grade 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 8 labs due for this course, each worth 15 points. 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

Your final evaluation for the course will be based upon 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 |
|-------------|---|------------------------|
| PsychLearn | 12 worth 10 points each | 24% |
| Labs | 8 worth 15 points each | 24% |

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|---------------------------------------|--------------------|-------------|
| Research Paper | 1 worth 120 points | 24% |
| Research Presentation | 1 worth 120 points | 24% |
| Final Peer Evaluations and Reflection | 1 worth 20 points | 4% of grade |

Final Letter Grade

| Letter Grade | Percentage |
|--------------|---------------|
| A | 93 - 100% |
| A- | 90 - 92.99% |
| 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 \(http://www.sjsu.edu/senate/docs/S16-9.pdf\)](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 [Syllabus Information web page \(https://www.sjsu.edu/curriculum/courses/syllabus-info.php\)](https://www.sjsu.edu/curriculum/courses/syllabus-info.php). Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

This is a tentative course schedule. If changes must be made, you will be notified via an announcement on Canvas or in class.

| Week | Course Topic (Modules and Lecture) | Labs |
|------|--|----------------------------|
| | PsychLearn Assignment ALWAYS due before class session on date listed | *Due at end of Lab Period* |
| 1 | 8/23 No Class 8/25 No Class | |

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|---|--|--|
| 2 | <p>8/30</p> <p>Introductions</p> <p>PsychLearn - Orientation</p> <p>9/1</p> <p>PsychLearn Scientific Method</p> | Lab 1 |
| 3 | <p>9/6</p> <p>PsychLearn – Getting Started</p> <p>9/8</p> <p>PsychLearn – Ethical Practices</p> | Lab 2 |
| 4 | <p>9/13</p> <p>PsychLearn Reviewing the Literature</p> <p>9/15</p> <p>PsychLearn – Research Questions, Hypotheses and Design</p> | Lab 3 |
| 5 | <p>9/20</p> <p>Group Work</p> <p>9/22</p> <p>Group Work</p> | <p>Lab 4</p> <p>Literature Review Due 9/23</p> |
| 6 | <p>9/27</p> <p>PsychLearn – Sampling and External Validity</p> <p>9/29</p> <p>PsychLearn – Correlational Design and Construct Validity</p> | Lab 5 |
| 7 | <p>10/4</p> <p>PsychLearn – Measuring and Reliability</p> <p>10/6</p> <p>PsychLearn – Between and Within Group Designs</p> | Lab 6 |

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|----|---|---|
| 8 | 10/11 PsychLearn - Manipulating Variables 10/13 Group Work | Lab 7 Proposals DUE 10/14 |
| 9 | 10/25 Research Proposal Meetings 10/27 Research Proposal Meetings | |
| 10 | 11/1 PsychLearn Analyzing and Interpreting Data 11/3 Reporting Results | Lab 8 |
| 11 | 11/8 Group Work and Meetings 11/10 Group work and Meetings | |
| 12 | 11/15 Group Work and Meetings 11/17 Group Work and Meetings | |
| 13 | 11/22 Group Work 11/24 BREAK | Final Paper Due 11/22 |

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|--------|---|---|
| 14 | 11/29 Presentations 12/1 Presentations | Final Presentations |
| 15 | 12/6 Presentations | Final Presentations |
| Finals | 12/8 -- 9:45 AM – 12:00 PM | Final Exam Date: Final Assignments Due |