San José State University Social Sciences/Department of Psychology
Psyc 120, Advanced Research Methods and Design
Spring, 2017: Section 50 (51/52)

Prerequisites: Psyc 1, Stat 095, and Psych 100W

Instructor
Thackery Brown, Ph.D.
Office Location: DMH 232 Telephone: (617) 276-5068
Email: thackery.brown@sjsu.edu Office Hours: Tues/Thurs 3:30-4:30 or by appointment

Class Days / Times / Classroom
Section 50 Lecture: Tues & Thurs / 4:30-5:45pm / Room DMH 356
Section 51 Lab: Tues / 6:00-8:00pm / DMH 347
Section 52 Lab: Thurs / 6:00-8:00pm / DMH 347

Course Description
This course covers traditional laboratory experimental designs and methodology; experiments illustrating this approach. In addition, non-experimental (e.g., survey, observational) and quasi-experimental methods (e.g., time series designs, nonequivalent groups designs) will be discussed. Statistical analyses appropriate for different designs will be covered. This course differs from traditional lecture-based classes in several ways. First, it requires the ability to translate concepts from readings into practice. Second, it requires much independent work outside the classroom. Third, it requires active participation in lecture and lab. Fourth, the class focuses less on lectures and more on practical in-class activities (e.g., meetings).

Learning Outcomes and Course Goals
Upon successful completion of this course, students will be able to...
SLO 1: Understand the differences and limitations of experimental and correlational research designs.
SLO 2: Evaluate psychological research as to its reliability, validity, utility, and adherence to ethical guidelines.
SLO 3: Identify threats to validity in research, including confounds and threats to generalizability.
SLO 4: Execute a research project utilizing experimental design and interpret the results.
SLO 5: Perform statistical analyses on a factorial design experiment.

Course Learning Outcomes (CLO)
After completing this course, you should be able to critically examine claims made about human behavior - whether these claims are made by talk-show "experts," journalists, or behavioral scientists. More specifically, after completing this course, you should be able to
CLO 1: Explain why psychology is a science
CLO 2: Evaluate research on the basis of its construct validity, internal validity, external validity, statistical validity, and conformity to APA's ethical principles.
CLO 3: To identify and conduct appropriate statistical analyses of data obtained from several different research designs using APA
CLO 4: Conduct a literature review on topics in psychology.
CLO 5: Give a professional presentation of research findings
CLO 6: Work effectively in a research team
CLO 7: Write a APA-style research proposal and report

Program Learning Outcomes (PLO)
Upon successful completion of the psychology major requirements...

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 – Students will be able to 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: Values in Psychology – Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

Required Texts/Readings


Other Readings
Other assigned readings can be found in CANVAS

Other equipment / material requirements

1. SPSS Software and/or access to Clark hall computers with SPSS.
2. Access to psycharticles/psychinfo through SJSU Library
3. Access to library/photocopier for research articles
4. Computer, printer, access to the internet and SJSU library access
5. No. 2 Pencil, Stapler

Library Liaison
Adriana Poo is the psychology department library liaison.
Contact information to reach the liaison is: adriana.poo@sjsu.edu, (408) 808-2019

Course Requirements and Assignments 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.
Classes may include lectures, in-class activities, question-and-answer periods, guest lectures, demonstrations, and films. Attendance is required and 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. Bring your text to all classes.

Course activities overview
The primary method of assessment for this course will be a final research project, a class presentation of the project, lab activities, and a final exam. 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.

Labs:
Lab attendance is mandatory and critical to successful completion of this course.

Access to lab is only available during scheduled class time so please make adequate arrangements (plan for the use of public computers at Clark Hall) to work on your projects.

You will have access to computers during scheduled lab time, but if you need additional computer time you must make your own arrangements.

You can also get SPSS FREE through the bookstore or at Clark Hall. It is strongly recommended that you download a copy of the software.

The instructor will also assign lab work to prepare you to successfully complete your research papers.

The labs are not formally graded, but some involve assignments that ARE (e.g., peer review day), and failure to participate will likely mean you will have difficulty completing the research projects.

- 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 ensure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”

Research Study:
The research project requires students to conduct independent research, including data collection.

Your research team will develop a research topic within the parameters set by the instructor. The instructor will assign two of the three independent variables of the experiment and the research design must be a within-subjects factorial design experiment. Students will design the relevant study, create stimulus materials, conduct the study, analyze the data, write an APA-style research report, and give a professional quality presentation of your research findings.

The paper will be at least 12 pages in length (double-spaced, typed, 12-point font) and will include 20+ peer-reviewed, scholarly references. Your final paper includes: Title Page, Abstract, Introduction, Results,
**The instructor must approve all topics and stimulus materials prior to data collection.**

Each research team will also present their study and its findings to the class in a 15 minute presentation. Peer evaluations will be considered as part of the final grade for the project. Not completing a peer evaluation will result in the loss of points for your own the entire research group. Please remember to allow ample time as computers fail, internet connections fail, the help desk needs time to resolve, etc.

**Data Collection:**
Students must complete the HPPERT tutorial PRIOR to collecting data. Please note that data collection must occur by the specified date on the syllabus and failure to collect data on time will result in the loss of points (10%) 

**Final Exam:**
There will be a final exam in the class that is cumulative and based on the lectures and readings.

- 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.

Exams will be primarily multiple-choice, although there may be some short answer items. They will cover both text and lecture. Please bring a Scantron form and pencils to each exam.

**HPPERT Certificate (Lab Assignment 1, 5%):**
To ensure students are fully aware of ethical considerations and guidelines in conducting research with human participants. Each student must complete the online tutorial offered by the National Institutes at http://phrp.nihtraining.com/users/login.php

You must save your certificate which you will turn in to the instructor in order to receive credit for the assignment. Late certificates will lose 15% points.

**Example reading and Lecture Quizzes (Quiz 1+2, 5% ea.):**
Each student is required to read an example research paper posted on Canvas. There will be two in-lecture Quizzes, covering lecture material up to that point, and the first also covering the experimental questions, the methods, the results, and the conclusions and the example research paper reading assignment.

**Peer Review Day (Lab Assignment 2, 10%):**
Peer review of your scientific work is a fundamental part of research. It also helps you do your project well. “Peer review day” is a critical check-point where your group finishes literature review, and draft stimulus materials, and tries them out on your peers to see if the study will actually “work”. Don’t miss it.
Grading Policy

% of overall Grade:
25% - Final Exam
25% - Lab Assignments + Quizzes
35% - Final Research Paper
15% - Presentation


Late Work:
All assignments must be submitted by the due date. Late assignments will lose 20% of total points for every weekday they are late. Assignments more than three weekdays late will not be accepted. Students submitting late assignments will not receive feedback from the instructor. DO NOT EMAIL LATE

Peer review is an important component to this course. Students who are not prepared for peer review date will be docked points (10%) on the final submission of the work. Make-up presentations may be scheduled with the approval of the instructor for students who provide documentation that necessitates an absence. All group members must be present for the group to be eligible to earn full credit for their presentation.

Make-up Exam:
There are no make ups for missed exams unless there is a documented medical reason or excused absences because of a University event. If you know ahead of time that you cannot make an exam, please let me know. In the case of an excused absence from an exam, you may make the exam up on the day of the final.

Posting of Grades:
Final grades will be posted to My.SJSU no earlier than grade evaluation day. Final grades will not be posted to CANVAS although the gradebook will contain graded assignments completed by the student.

- “Students are strongly encouraged to take courses to satisfy GE Areas R, S, and V from departments other than their major department. Passage of the Writing Skills Test (WST) or ENGL/LLD 100A with a C or better (C not accepted), and completion of Core General Education are prerequisite to all SJSU Studies courses. Completion of, or co-registration in, 100W is strongly recommended. A minimum aggregate GPA of 2.0 in GE Areas R, S, & V shall be required of all students.” See University Policy S14-5 at http://www.sjsu.edu/senate/docs/S14-5.pdf.
- According to University Policy F13-1 “All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades.” See University Policy F13-1 at http://www.sjsu.edu/senate/docs/F131.pdf for more details.

Electronics Policy
You may not use cell phones, foreign language dictionaries, laptop computers, headphones, or any other electronic device during exams. Turn off all pagers, cell phones, headphones, etc. before class. Use of cell
phones and other communication methods (e.g., text messaging) during class will result in dismissal from class.

**Attendance**

Attendance to the class is very important and absences may impact your grade through the loss of activity participation points, in-class group activities, and discussion questionnaires. Your participation and attendance is important. Peer learning is an important component and your active participation contributes to the quality of the class.

**Tardiness:**

If you must arrive to class late, please enter the classroom quietly and without disruption to other students or the instructor. Excessive tardiness could impact your grade as you will likely miss important information, especially announcements and answers to student questions.

If you miss a class, you should get the notes from another student and review them.

**Office Hours**

If you have to discuss your grade or need a grade check or have any questions related to your performance please come by office hours, wait until after class to discuss, or make an appointment with me. This is so not to take up class time by discussing issues that are best done during office hours.

**Email:**

I welcome questions over email.

However,

1. Some issues are best discussed in person during office hours. If I feel your question is best discussed in person, I will email you and ask you to arrange a time to stop by my office.

2. Due to the large volume of emails that I receive daily, please allow 1-3 days for a response. If you need an immediate answer or I have not gotten back to you, please stop me after class, or call me and leave a voice message. I will respond to you as soon as possible.

If you plan on stopping by office hours, you must email me in advance or call ahead of time so I know you plan to stop by. I am not stationed on campus so I need to plan accordingly if an office hour meeting is needed. If you miss a class, you should get the notes from another student and review them prior to seeking out the instructor.

**University Policies**

**General Expectations, Rights and Responsibilities of the Student:**

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU’s policies and practices pertaining to the procedures to follow if and when questions or concerns about a class arises. See University Policy S90–5 at [http://www.sjsu.edu/senate/docs/S90-5.pdf](http://www.sjsu.edu/senate/docs/S90-5.pdf).
More detailed information on a variety of related topics is available in the SJSU catalog, at http://info.sjsu.edu/web-dbgen/narr/catalog/rec12234.12506.html. In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not serve to address the issue, it is recommended that the student contact the Department Chair as a next step.

**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 Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.

**Consent for Recording of Class and Public Sharing of Instructor Material:**
University Policy S12-7, http://www.sjsu.edu/senate/docs/S12-7.pdf, requires students to obtain instructor’s permission to record the course and the following items to be included in the syllabus:

- “Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.”
  - It is suggested that the greensheet include the instructor’s process for granting permission, whether in writing or orally and whether for the whole semester or on a class by class basis.
  - In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well.
- “Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.”

**Academic integrity:**
Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The University Academic Integrity Policy S07-2 at http://www.sjsu.edu/senate/docs/S07-2.pdf requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.
**Campus Policy in Compliance with the American Disabilities Act:**

If you need course adaptations or accommodations because of a disability, or if you need to make 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 at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at http://www.sjsu.edu/aec to establish a record of their disability.

**Student Technology Resources:**

Computer labs for student use are available in the Academic Success Center at http://www.sjsu.edu/at/asc/ located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library. A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and monitors.

**SJSU Writing:**

The SJSU Writing Center is located in Clark Hall, Suite 126. All Writing Specialists have gone through a rigorous hiring process, and they are well trained to assist all students at all levels within all disciplines to become better writers. In addition to one-on-one tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment or to refer to the numerous online resources offered through the Writing Center, visit the Writing Center website at http://www.sjsu.edu/writingcenter. For additional resources and updated information, follow the Writing Center on Twitter and become a fan of the SJSU Writing Center on Facebook.
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<thead>
<tr>
<th>Week</th>
<th>T/Th</th>
<th>Topic</th>
<th>Lab</th>
<th>Reading</th>
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<tbody>
<tr>
<td>1</td>
<td>1/26</td>
<td>(Th) Course overview</td>
<td>(Th) Grp Member Selection</td>
<td>Chapter 1</td>
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<tr>
<td>2</td>
<td>1/31</td>
<td>(T) The Scientific Process</td>
<td>(T) Grp Member Selection Week 1–Week 6: Conduct</td>
<td>Chapter 2/3</td>
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<td>2/2</td>
<td>(Th) Pseudoscience</td>
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<td>3</td>
<td>2/7, 2/9</td>
<td>(NO CLASS) (Th) Ethics in Research</td>
<td>literature review; Develop statement of hypotheses; Selection of Factors for your experiment; Design experimental questionnaire &amp; Stim. Materials</td>
<td>Chapter 7/8</td>
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<tr>
<td>4</td>
<td>2/14, 2/16</td>
<td>(T) Ethics in Research (NO CLASS)</td>
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<td>Chapter 4</td>
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<td>5</td>
<td>2/21</td>
<td>(T) Independent and Dependent Groups Design</td>
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<td>Chapter 5/6</td>
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<td></td>
<td>2/23</td>
<td>(Th) Groups Design + Hypothesis Testing</td>
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<td>6</td>
<td>2/28</td>
<td>(T) Hypothesis Testing</td>
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<td>Chapter 5/6</td>
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<td></td>
<td>3/2</td>
<td>DUE: Quiz 1 and example research reading assign (Th)</td>
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<td>7</td>
<td>3/7, 3/9</td>
<td>(T) Measurement variables (Th) A statistics review #1...</td>
<td>Final preparation of Stimulus Materials and Completion of Data Collection plan</td>
<td>(T) Chapter 13</td>
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<td>(Th)</td>
<td>(Th) Chapter 14</td>
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<tr>
<td>8</td>
<td>3/14</td>
<td>(T) Measurement variables and stats</td>
<td>DUE: Lab2 <em>Peer Review Day</em> (Literature Review, Hypotheses, and Methods; Stimulus Materials and Informed Consent)</td>
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<tr>
<td></td>
<td>3/16</td>
<td>(Th) Measurement variables + Communicating Results</td>
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<tr>
<td>9</td>
<td>3/21</td>
<td>Communicating results – how to write your paper and do your presentation! (Th) ...</td>
<td>FINALIZE Stim materials and begin data collection!!!</td>
<td>APA Man. Ch 2 / Ch 5</td>
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<td>3/23</td>
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<tr>
<td>10</td>
<td>3/28</td>
<td>(NO CLASS) Spr Break (NO CLASS) Spr Break</td>
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<td>3/30</td>
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<td>11</td>
<td>4/4</td>
<td>How do you organize and analyze your data? Analysis of Variance</td>
<td>Collect Data for Research Project !!! ----no lab-- -------</td>
<td>(T) APA Man. Ch 4</td>
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<td></td>
<td>4/6</td>
<td></td>
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<td>(Th) APA M. Ch 6</td>
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<tr>
<td>12</td>
<td>4/11</td>
<td>(T) The Results and Discussion Section Explaining what you found (Th) Writing Tips for Your Final Paper</td>
<td>DUE 4/11: All data collected (seriously – lab time this week is critical); Input &amp; Analyze Data in SPSS</td>
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<td>4/13</td>
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<td>13</td>
<td>4/18</td>
<td>(T) Final Course Material Review</td>
<td>DUE: SPSS Data File must be uploaded by 4/21 (Fri);</td>
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<td>Date(s)</td>
<td>Days</td>
<td>Grouping</td>
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<td>4/20</td>
<td>(Th)</td>
<td>Bonus Stats + QA help session</td>
<td>Analyze Data in SPSS; Prepare results section and discussion section; work on papers / presentations; Individual Grp Meetings with Instructor</td>
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<td>4/25</td>
<td>(T)</td>
<td>Groups 1 to 3</td>
<td>(T) Analyze Data in SPSS; Prepare results section and discussion section; work on papers / presentations; Individual Grp Meetings with Instructor</td>
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<td>4/27</td>
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<td>Groups 4 to 6</td>
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<td>4/25</td>
<td>(T)</td>
<td>Groups 7-9</td>
<td>Incorporate instructor feedback + peer review feedback.</td>
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<td>5/2</td>
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<td>Groups 10-12</td>
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<td>5/9</td>
<td>(T)</td>
<td>Last Day of Class Wrap up</td>
<td>Final Papers are Due by 5/11</td>
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<td>5/11</td>
<td>(Th)</td>
<td>Bonus day if needed</td>
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<tr>
<td>5/16</td>
<td></td>
<td>Cumulative Final Exam</td>
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**You will pilot test your materials, but due to time/space restrictions, it is possible you may not be able to pilot test all of your conditions. It is your responsibility to bring stimulus materials to lab and the checklist. Out of courtesy and time constraints, there will be no printing of stimulus materials during lab. NO EXCEPTIONS ***The presentation schedule will be posted to CANVAS ****Make up dates are subject to instructor approval with student documentation. *****Students must sit for the final exam in their designated section and not doing so could result in receiving a “0” for the examination.**