

San José State University
Department of Psychology
Psyc 121B, Advanced Research Methods: Cognition/Perception
Sections 10/11, Fall 2022

- Instructor:** Patrick F. Cravalho, PhD
- Email:** patrick.cravalho@sjsu.edu
- Office Hours:** Held via Zoom on Wednesdays from 2:00pm to 4:00pm (here is the link: <https://sjsu.zoom.us/j/85074830876>) OR email me to set up a day/time for a Zoom appointment that works for you. **NOTE: for office hours held via Zoom, you need to use your SJSU Zoom account to attend the meeting.**
- Class Days/Times:** Held in person on Tuesdays.
Seminar: 1:00pm to 1:50pm
Lab: 2:15pm to 5:15pm
- Classroom Locations:** Seminar: Dudley Moorhead Hall, Room 347
Lab: Dudley Moorhead Hall, Room 339
- Prerequisites:** Psyc 100W, Psyc 118 or 120, plus one of: Psyc 135, Psyc 155, Psyc 158

Course Description

Advanced treatment of research approaches used in Cognition and/or Perception. The primary focus of the course is on traditional laboratory experimental designs and methods. Laboratory-based data collection and analysis facilitate experiential learning.

Course Goal

The goal of this course is to provide you with the practical experiences needed to develop a meaningful cognition and/or perception research project.

Course Learning Outcomes (CLO)

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

- CLO1* – Display knowledge of the concepts and theories relevant to research in cognition & perception.
- CLO2* – Devise & use a research question as a guide to developing the components of a research project.
- CLO3* – Effectively and efficiently search and review a selected research literature.
- CLO4* – Develop testable hypotheses.
- CLO5* – Design experimental methods & a data analysis plan for testing one’s hypotheses.
- CLO6* – Complete ethics training and an SJSU IRB application.
- CLO7* – Disseminate one’s research review findings and experiment design via an oral presentation.

Program Learning Outcomes (PLO)

Upon successful completion of the psychology major requirements... (**Psyc 121B meets each PLO.**)

1. *PLO1 – Knowledge Base of Psychology* – Students will be able to identify, describe, & communicate the major concepts, theoretical perspectives, empirical findings, & historical trends in psychology.
2. *PLO2 – Research Methods in Psychology* – Students will be able to design, implement, & communicate basic research methods in psychology, including research design, data analysis, & interpretations.
3. *PLO3 – Critical Thinking Skills in Psychology* – Students will be able to use critical & creative thinking, skeptical inquiry, & a scientific approach to address issues related to behavior & mental processes.
4. *PLO4 – Application of Psychology* – Students will be able to apply psychological principles to individual, interpersonal, group, & societal issues.
5. *PLO5 – Values in Psychology* – Students will value empirical evidence, tolerate ambiguity, act ethically, & recognize their role & responsibility as a member of society.

Materials

1. Laptop/desktop/tablet computer, and Internet access. SJSU has a free equipment loan program for students: <https://www.sjsu.edu/learnanywhere/equipment/index.php>.
2. Access to Google documents, sheets, & slides and/or access to Microsoft Word, Excel, & PowerPoint and/or Apple Pages, Numbers, & Keynote. **NOTE:** SJSU students can utilize Microsoft Online (which includes Word, Excel, and PowerPoint) for free (see <http://itsdev2.sjsu.edu/services/software/microsoft-students/index.html#instructions>).

Office Hours

You need to be prepared if you visit me during office hours. This means you have a specific agenda (e.g., discuss accommodations) and/or questions about our Psyc 121B course ready before you visit office hours. In addition, please email me at patrick.cravalho@sjsu.edu to let me know you want to come to office hours and to let me know WHY you want to come to office hours, so I can prepare for your visit.

Email Communication

All email communications to me need to be sent to patrick.cravalho@sjsu.edu and include “Psyc 121B” in the subject line. **Please DO NOT message me through Canvas.** As a rule of thumb, write separate emails for communicating different topics, rather than writing about multiple topics in one email. This helps me to not miss reading/replying to important information that you share with me.

Checking Canvas regularly

I will regularly post materials, information, etc. on the following links on our Psyc 121B Canvas webpage: Announcements, Assignments, Grades, and Files. Therefore, you need to regularly check our Psyc 121B Canvas webpage (all of the links listed above are on the left side of our Psyc 121B Canvas webpage).

Checking your SJSU email regularly

If I need to contact you or send you feedback on an assignment, but I have not received any prior email communication from another one of your email accounts, I will contact you via your sjsu.edu email address. Therefore, you need to regularly check your sjsu.edu email address.

Classroom Protocol

It is university policy F69-24 (<http://www.sjsu.edu/senate/docs/F69-24.pdf>) that students should attend all meetings of their classes. Arrive to class on time. Arriving late disrupts other students and interferes with the continuity of the lectures and class activities. If for any reason you cannot avoid being late, please enter the class through the least noticeable door and take a seat quietly. Do not start a conversation to catch up on information you missed or expect information you missed to be repeated. Leaving early is equally disruptive, if you must do so, please leave through the least noticeable door. During class, do not sleep, carry on conversations, or work on course material (including studying or reading for other classes). Be polite and respectful to your classmates and to your instructor.

Your attention is expected during class. Therefore, phones, music players, etc. are not allowed to be used during class (i.e., all devices should be put away and set to not make any noise) so that one stays focused on our class discussions. If you are using your phone or another device during class, you may be asked to put it away. If you are using your phone or another device repeatedly after being asked to put it away, you may be asked to leave. These rules are not only so you will not distract yourself, but also so you will not distract your classmates or your instructor. Food and drinks are permitted during class, but you must be sure that your space is clean when you leave the classroom. If you miss a class, you are responsible for contacting your instructor to inquire about the information you missed from that class.

Laptops/Tablets

In-person class laptop/tablet use is allowed, but you must first talk to your instructor to get permission to use your laptop/tablet. Students using laptops/tablets will be asked to sit in the back or the side of the classroom. Allowed laptop use will be restricted to note-taking. One shall never connect to the internet and use class time to check email, visit social networking sites, surf the web, work on other coursework, etc. If you are seen engaging in any other activity other than note-taking, your laptop/tablet privileges will be revoked for the remainder of the semester.

Diversity Statement

We will create a safe and diversity-sensitive learning environment that respects the rights, dignity, and welfare of all students, faculty, and staff. Diversity means the fair representation of all groups, the inclusion of minority perspectives and voices, and appreciation of different cultural and socioeconomic group practices. I aspire to foster and maintain an atmosphere that is free from discrimination, harassment, exploitation, or intimidation.

Student Athletes

If you are a student athlete, please inform me at the beginning of the semester of any team obligations. If there are any conflicts between your obligations and class participation/assignment, we may need to figure out alternative arrangements for you to participate or complete an assignment.

Course Requirements and Assignments

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/ studying, or course related activities, including but not limited to internships, labs, and clinical practice. Other course structures will have equivalent workload expectations as described in the syllabus. More details about student workload can be found in [University Policy S16-9](#).

Research Proposal (RP) Assignments

Initial Proposal

You will submit a brief document that will help guide all of the following research proposal assignments. This document will include a topic in cognition/perception that interests you, a research problem and a research question that are related to each other (and both of which are related to your topic), and keywords to aid your initial research literature search. This assignment is worth five points. You will receive feedback from the instructor on your initial proposal.

Literature Review Matrix

You will complete a literature review of 20 articles. We will discuss research problems, research questions, testable hypotheses, and “holes” in research literatures in class as you work on your literature review, as these concepts will shape your literature review and the following research proposal assignments. You will search the prior research literature related to your problem, question(s), and hypothesis/hypotheses. You will then read and summarize the relevant articles via an Excel matrix. An example matrix will be shared and discussed in class. This assignment is worth 45 points. You will receive feedback from the instructor on your literature review matrix. You can also contact SJSU’s Library Liaison for the Psychology Department, Christa Bailey (christa.bailey@sjsu.edu). Here is a link Christa’s Libguide: <http://libguides.sjsu.edu/psychology>

Proposal Update

You will submit a brief document to update your research proposal after completing the literature review. This document will include updates to your statement of the research problem and research question(s), then information on the “holes” in the literature, hypothesis/hypotheses, population of interest, independent and dependent variables, and a preview of your research design. This assignment is worth 12 points. You will receive feedback from the instructor on your proposal update.

IRB Application

You will complete the San José State University Institutional Review Board (IRB) application to describe your proposal research project: <http://www.sjsu.edu/research/irb/irb-forms/index.html>. Completing the application and narrative is worth 25 points. You will receive feedback from the instructor on your IRB application.

CITI Ethics Training

You will complete the Collaborative Institutional Training Initiative (CITI) online research ethics training course for social & behavioral science researchers: <http://www.sjsu.edu/research/irb/irb-researcher-training/index.html>. This is the same training course required to be completed by all researchers at San José State University and most other research institutions. Completing the training is worth 10 points.

Research Proposal Presentation

You will give an in-class presentation of the experimental cognition/perception research study you will be designing over the span of this course. You will receive a separate set of instructions for this presentation and we will discuss those assignment parameters in class via an example research project presentation. You will first turn in a draft of your presentation, then you will receive feedback on that draft and will be expected to incorporate edits based on that feedback into your final presentation. The presentation draft will be worth five points and the final presentation will be worth 40 points.

Late RP Assignment Submission Policy

For each 24-hour period that you submit an assignment after the due date/time, I will subtract 25% off of your grade. No assignment will be accepted 48 hours after the due date/time. If you fail to turn in your Initial Proposal and/or Research Proposal Presentation Rough Draft within the parameters outlined in the “RP Assignments” and the “Late RP Assignment Submission Policy” sections of this syllabus, you will receive a zero on that assignment, but still must complete it in order to be eligible to turn in your Proposal Update and/or Research Proposal Presentation Final Draft.

Online Participation (OP) Assignments

You will complete eleven online participation assignments via Canvas submission, worth a total of 58 points (5-8 points each). You will only receive credit for an OP assignment if you submit your work on the assignment before the scheduled due date.

Online Participation Assignment Make-up Policy

If you have a legitimate reason for missing an OP assignment, you may be permitted to make up the online assignment. However, you will need to contact me as early as you can, let me know your legitimate reason for missing the assignment, and provide some proof of the legitimate reason you missed the assignment. If you miss the assignment due to an unanticipated reason, contact me as soon as you can to explain your reason and to provide some proof of why. If you don't contact me at least 24 hours after the assignment took place, you will not be allowed a make-up, regardless of whether you have a legitimate excuse.

Extra Credit Opportunities

A total of ten extra credit points may be added to your final point total if you take advantage of the following opportunities. Ten points is a substantial amount (i.e., 5% of your final grade), **but the points must be earned and are being made available to encourage specific learning behaviors.**

The first opportunity will be to earn seven points for submitting the Research Proposal (RP) assignments early. Specifically, you must submit each RP assignment two days early. For example, your **Initial Proposal** is due by 11:59pm on Friday (9/2), so you must turn it in before 11:59pm on Wednesday (8/31) for it to count as two days early. You can only earn the full seven points by submitting **ALL 7 RP assignments** early. You earn 0.75 points for submitting each of the initial proposal, proposal update, presentation draft and final presentation early. You earn a point for submitting each of the IRB application and the CITI certificate early. You earn two points for submitting the literature review matrix (LRM) early. These points are tiered if you do not complete all 7 RP assignments early (e.g., if you submit 4/4 RP assignments worth 0.75 extra credit points early, 1/2 RP

assignment worth an extra credit point early, and don't get the LRM in early, you receive only 4 extra credit points). ***This opportunity is meant to encourage you to complete RP assignments early rather than procrastinate in completing your RP assignments.***

The second opportunity is to earn three points for submitting each of the Online Participation (OP) assignments by the posted deadlines (see schedule below for OP assignment deadlines). (**NOTE: there are no early deadlines for the OP assignments.**) You can only earn the full three points by submitting **ALL 11 OP assignments** on time (i.e., you earn 0.25 points for each OP assignment submitted on time, then an extra 0.25 points if you submit all 11 OP assignments on time). These points are tiered if you do not complete all 11 OP assignments on time (i.e., if you submit 10/11 OP assignments on time, you receive 2.5 extra credit points, if you submit 9/11, you receive 2.25 points, etc.). ***This opportunity is meant to encourage you to fully participate in our online course to learn as much of the material as you can.***

Grading Policy

Your grade will be based on the total amount of points (200 possible points) you receive from RP assignments (142 possible points) and OP assignments (58 possible points). Below is a breakdown of the amount of points needed to earn the specified letter grades. (**NOTE:** Individual quiz and assignment totals may change over the course of the semester causing a change in the total amount of points.) 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 (<http://www.sjsu.edu/senate/docs/F13-1.pdf>) for more details.

| | | | |
|------------------------|-----------------------|------------------------|-------------------|
| 200+ = A+ (100%) | 185-199 = A (~93-99%) | 179-184 = A- (~90-92%) | |
| 175-178 = B+ (~88-89%) | 165-174 = B (~83-87%) | 159-164 = B- (~80-82%) | |
| 155-158 = C+ (~78-79%) | 145-154 = C (~73-77%) | 139-144 = C- (~70-72%) | Less than 117 = F |
| 135-138 = D+ (~68-69%) | 125-134 = D (~63-67%) | 120-124 = D- (~60-62%) | (~59% or less) |

NOTE: I will NOT provide any student with an informal grade check at any point of the semester. The only grade checks to be provided are those accompanying official SJSU forms (e.g., athletics, Greek life, probation).

Study & Workspace Resources

SJSU has designated 21 available classrooms, in buildings around the campus, for students to use for studying, attending online classes, collaborating with other students, etc. No reservations are required. The students can just go to the room, set themselves up, and start working. See the [Study Resources](#) page (find this page on the **Campus Resources tab**) on the [Learn Anywhere](#) site to find information about the study and work spaces on campus.

Links to University Policies

General Expectations, Rights and Responsibilities of the Student

Students are encouraged to familiarize themselves with SJSU's policies and practices via University Policy S90-5 (<http://www.sjsu.edu/senate/docs/S90-5.pdf>). More detailed information on a variety of related topics is also available in the SJSU catalog (<http://info.sjsu.edu/web-dbgen/narr/catalog/rec-12234.12506.html>).

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness (<http://info.sjsu.edu/static/catalog/policies.html>). Add/drop deadlines can be found on the current academic year calendars document (http://www.sjsu.edu/provost/services/academic_calendars/). The Late Drop Policy is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. 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 any part of the course. **Therefore, neither recording of class lectures or discussions nor distribution of course materials are allowed. Failure to follow this policy will be considered a violation of course academic integrity policy and will result in immediate expulsion from the class, a grade of F in the course, and reporting the student to the University and proper authorities for further sanctions.**

Academic integrity

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 (<http://www.sjsu.edu/studentconduct/>). Depending on the severity of the conduct, you may receive a zero on the assignment or a grade of F in the course. Grade Forgiveness does not apply to courses for which the original grade was the result of a finding of academic dishonesty.

Campus Policy in Compliance with the American Disabilities Act

Presidential Directive 97-03 (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.

Accommodation to Students' Religious Holidays

According to University Policy S14-7 (<http://www.sjsu.edu/senate/docs/S14-7.pdf>), SJSU shall provide accommodation on any graded class work or activities for students wishing to observe religious holidays when such observances require students to be absent from class.

Student Technology Resources & Resources for Online Learning

Computer labs and other resources for student use are available: see links: <http://www.sjsu.edu/at/asc/> and <https://library.sjsu.edu/student-computing-services/student-computing-services>. SJSU has consolidated its online learning resources into a single website: <https://www.sjsu.edu/learnanywhere/>

SJSU Peer Connections & Writing Center

Peer Connections is a campus-wide resource for mentoring and tutoring, visit their website at <http://peerconnections.sjsu.edu> for more information. To utilize the resources offered through the Writing Center, visit their website: <http://www.sjsu.edu/writingcenter>.

SJSU Counseling and Psychological Services (CAPS)

All students to come into Counseling and Psychological Services, located at the Student Wellness Center, room 300B, for any support needed, visit the CAPS website at <http://www.sjsu.edu/counseling>.

Course Schedule

We will follow the schedule below to the greatest extent possible. However, the schedule is subject to change. You will be given fair notice of any changes via in class announcements, Canvas postings, & emails.

| Date | Seminar Topics & Lab Tasks | Assignments & Due Dates |
|-----------|--|---|
| Tue 8-23 | Seminar: Course Intro Lab: 1) Read the Psyc 121B syllabus & 2) Work on Student Skills OP Assignment | Student Skills OP Assignment (5 points) due by 11:59pm on Fri (8/26) |
| Tue 8-30 | Seminar: Research Problems & Questions Lab: Work on Initial Proposal | Initial Proposal (5 points) due by 11:59pm on Fri (9/2); early deadline is 11:59pm on Wed (8/31) |
| Tue 9-6 | Seminar: Literature Review Intro Lab: 1) <u>Christa Bailey (Library Liaison) Visit</u> & 2) Search for articles for your Literature Review Matrix (LRM) | I suggest you read at least TWO articles for LRM by Sun (9/11). |
| Tue 9-13 | Seminar: Revising Research Questions Lab: 1) Work on Research Question OP Assignment & 2) Work on LRM | I suggest you read at least SEVEN articles for LRM by Sun (9/18). Research Questions OP Assignment (5 points) due by 11:59pm on Fri (9/16) |
| Tue 9-20 | Seminar: Generating Testable Hypotheses Lab: 1) Work on Testable Hypotheses OP Assignment & 2) Work on LRM | I suggest you read at least TWELVE articles for LRM by Sun (9/25). Testable Hypotheses OP Assignment (5 points) due by 11:59pm on Fri (9/23) |
| Tue 9-27 | Seminar: Identifying “Holes” in the Literature Lab: 1) Work on Holes in the Lit OP Assignment & 2) Work on LRM | I suggest read at least SEVENTEEN articles for LRM by Sun (10/2). Holes in the Lit OP Assignment (5 points) due by 11:59pm on Fri (9/30) |
| Tue 10-4 | Seminar: Literature Reviews Outro Lab: 1) Work on Literature Review OP Assignment & 2) Finish up LRM | Literature Review Matrix (45 points) due by 11:59pm on Fri (10/7); early deadline is 11:59pm on Wed (10/5) Literature Review OP Assignment (8 points) due by 11:59pm on Fri (10/7) |
| Tue 10-11 | Seminar: Updating your Proposal & Research Ethics Lab: 1) Work on Proposal Update & 2) Work on CITI Ethics Training | Proposal Update (12 points) due by 11:59pm on Fri (10/14); early deadline is 11:59pm on Wed (10/12) |
| Tue 10-18 | Seminar: SJSU IRB App Overview Lab: 1) Start on IRB Application & 2) Finish up CITI Ethics Training | CITI Ethics Training Certificate (10 points) due by 11:59pm on Fri (10/21); early deadline is 11:59pm on Wed (10/19) |
| Tue 10-25 | Seminar: Experimental Research Designs Lab: 1) Work on Experiment Design OP Assignment & 2) Continue working on IRB Application | Experiment Design OP Assignment (5 points) due by 11:59pm on Fri (10/28) |
| Tue 11-1 | Seminar: Participant Recruitment Lab: Work on Participant Recruitment OP Assignment & 2) Continue working on IRB Application | Participant Recruitment OP Assignment (5 points) due by 11:59pm on Fri (11/4) |
| Tue 11-8 | Seminar: Research Data Organization Lab: 1) Work on Data Organization OP Assignment & 2) Continue working on IRB Application | Data Organization OP Assignment (5 points) due by 11:59pm on Fri (11/11) |

| Date | Seminar Topics & Lab Tasks | Assignments & Due Dates |
|-------------------------------|---|--|
| Tue 11-15 | Seminar: Research Proposal Presentation (RPP) Overview Lab: 1) Work on RPP Draft & 2) Continue working on IRB Application | RPP Draft (5 points) due by 11:59pm on Fri (11/18); early deadline is 11:59pm on Wed (11/16) |
| Tue 11-22 | Seminar: Initial IRB Check-in Lab: Continue working on IRB Application NOTE: NO Office Hours on Wed (11/23) | |
| Tue 11-29 | Seminar: Student Skills Follow up & Final IRB Check-in Lab: 1) Work on Student Skills Follow-up OP Assignment & 2) Finish up IRB Application | IRB Application (25 points) due by 11:59pm on Fri (12/2); early deadline is 11:59pm on Wed (11/30) Student Skills Follow-up OP Assignment (5 points) due by 11:59pm on Fri (12/2) |
| Tue 12-6 | Seminar: Research Proposal Presentations (Round 1) Lab: Finish up Peer Evaluations | RPP Final (R1; 40 points) due by 11:59pm on Mon (12/5); early deadline is 11:59pm on Sat (12/3) Peer Evaluations R1 OP Assignment (5 points) due in-person on Tue (12/6) |
| Mon 12-12 12:15-2:30pm | Research Proposal Presentations (Round 2) | RPP Final (R2; 40 points) due by 11:59pm on Sun (12/11); early deadline is 11:59pm on Fri (12/9) Peer Evaluations R2 OP Assignment (5 points) due in-person on Mon (12/12) |