

San José State University, Department of Psychology
PSYC 120, Advanced Research methods, Section 01/02, Summer 2022

Course and Contact Information

Instructor:	Mark Van Selst
Office Location:	DMH 314 (realistically, online: email and zoom)
Telephone:	408 924 5674
Email:	Mark.VanSelst@SJSU.edu
Office Hours:	Mon, Tue, Wed, Thur 12:30-1:00 (class link before class)
Class Days/Time:	Monday Tuesday Wednesday Thursday 1:00-3:00PM (lecture) Tuesdays & Thursdays 3:15-6:00PM (lab)
Classroom:	Zoom (lecture) + Zoom (lab)
Prerequisites:	lower division GE complete; STAT 95; PSYC 100W with 'C' or better (or department approval); Upper Division; Psychology or Behavioral Science Major
Course Format:	Synchronous online (SJSU Canvas, zoom, web-camera required)
Course Description:	

From the Course Catalog: *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.*

For Psychology majors, this course MAY be used in lieu of PSYC 118 (the advanced methods requirement for the 'new' BA program, which also still requires PSYC 18) but PSYC 118 may not be used in lieu of PSYC 120 (the advanced methods requirement for the 'old' BA and BS programs).

This course is an intensive introduction to the experimental tools used in the social and behavioral sciences. Students will be given the opportunity to develop an understanding of the principles and procedures involved in scientific research in psychology. The course includes both a lecture and a laboratory component. Grading will be based on written assignments (self-paced and in-class) and by formal testing. The expectation is that students will develop a firm grasp on the logic and application of the experimental method. The material covered includes design, methodology, and interpretation. Quantitative methods are emphasized, but criticisms of both quantitative and qualitative methods will be noted. The lectures will cover a broad range of topics in varying degrees of depth. The laboratory activities will cover a smaller range of topics in much greater depth than possible in the lectures. The laboratory activities are a crucial component of the course; many of you will find them indispensable in helping to clarify any questions you have about the lecture and text materials. Participation in the laboratory will be critically important to an understanding and completion of the course assignments.

Success in this course is based on the expectation that students will spend 45 minutes on preparation, studying, or lecture-related activities in addition to the 15 hours of lecture/discussion content and the additional in-person and outside activities related to the laboratory/activity section.

Access to content:

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found via the [Canvas Learning Management System course login website](#) at <http://sjsu.instructure.com>. You are responsible for regularly checking with the messaging system through [MySJSU](#) on [Spartan App Portal](#) <http://one.sjsu.edu> (or other communication system as indicated by the instructor) to learn of any updates. For help with using Canvas see [Canvas Student Resources page](#) (http://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources). The zoom links for class activities (i) will be sent based on course registration, (ii) may not be shared, (iii) recordings are generally prohibited and, if authorized, are only to be used for personal educational use, (iv) change for each day and (v) may require the SJSUone login for access.

Learning Outcomes (CLO)

Upon successful completion of this course:

- CLO1 – Students will be able to design, implement, and communicate basic research methods in psychology, including research design, data analysis, and interpretations. [cf., Lab 1-3, 8, 9, 14, 16]
- CLO2 – 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. [cf., Lab 4, 7, 11, 16]
- CLO3 – Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society. [cf., lab 3, 4]

Upon successful completion of the SJSU baccalaureate degree program in Psychology:

- *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 – 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.

Required Textbooks

Cozby, P.C., & Bates, S. (2020). **Methods in Behavioral Research, 14th edition**, McGraw Hill education. ISBN 9781260205589

- There are older (12th or 13th) editions that are acceptable. The 12th or 13th editions are available used (only). The 14th edition is evidently only available as an electronic text or in a loose-leaf version (publishers do this to reduce resale). The 14th definitions will be referenced in the course materials. I will follow the definitions and structure of the 14th.

Publication Manual of the American Psychological Association, 7th edition (2020). APA: Washington, DC.

- You should already have this text from your PSYC 100W course.

- In the case of a grading dispute regarding formatting the APA 7th manual is the controlling document.
- ISBN: 9781433832161

Other technology requirements / equipment / material

- CANVAS
- ZOOM
- Web-camera (and a stable enough internet connection to allow full video participation)
- Graph paper, ruler
- Camscanner or similar picture to .pdf converter (needed for laboratory work uploads)

Library Liaison (<https://library.sjsu.edu/staff-directory/subject-librarians>)

- Psychology
Bailey, Christa
Phone: 408-808-2422
Email: christa.bailey@sjsu.edu

Course Requirements and Assignments

The instructions for the assignments and their associated weights towards our final grade are linked below.

Final Examination or Evaluation

There will be a final examination on Thursday July 2nd (NOTE: this date is NOT flexible – make your travel plans accordingly). Additionally, I will require extra time to meet with you (on your schedule) during the last two weeks of the course outside of class time in order to work extensively with you on your implementation and early drafts related to your final project. In addition to time spent studying, the class structure requires extensive out-of-class time dedicated to design, data collection, online quizzes, and other assignments.

Grading Information

- Exams and quizzes will not be rescheduled except in the case of a medical or family emergency; in all cases, documentation will be required. If you need course adaptations or accommodations because of a disability, or if you need special arrangements, please make an appointment with me as soon as possible. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with Accessible Education Center (AEC) to establish a record of their disability (www.sjsu.edu/aec).
- The start and end time for the availability and due dates for many assignments are fixed based on prior and subsequent work so extensions or accommodations would negatively impact (disadvantage) other students.
- Credit may or may not be given for late assignments. Do not rely on “late” allowances being permitted. All late work that is permitted will be penalized a minimum of 10% of the possible total (minimum -.5 points per item). Papers are due at the beginning (within five minutes of the registrar’s scheduled start time) of the relevant class or laboratory meeting or as indicated on the CANVAS web-page. I will attempt to ensure that a copy of handouts and other assignment-related materials are available electronically via canvas (where possible).
- All work you turn in should be your own. It is your responsibility to be familiar with the scope, definitions, and recommended sanctions stated in SJSU policies on [academic integrity](#) (includes

plagiarism). For many assignments, discussing the work with your classmates is encouraged; copying their work is not. Your own commitment to learning, as evidenced by your enrollment at San José State University, and the University's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Judicial Affairs. Substantive violations of the academic integrity policy will yield (i) a zero on the assignment, (ii) a fail for the course, and (iii) a recommendation for academic disqualification from SJSU.

- Homework and/or laboratory assignments will be given weekly. A portion of some of these assignments will be graded (see evaluation breakdown below). The assignments will ensure that everyone keeps up with the reading, and should help you to assess whether you have mastered the basic concepts. The various assignments and the final exam are partially cumulative since later topics build naturally upon those covered earlier in the course.
- Most assignments will be due in electronic format via the CANVAS web-page. Access to a computer word processor is required for the assignments. Where the assignments require substantial written work, a scan of written work is not acceptable (i.e., I am generally looking for .pptx, .docx, or a machine-readable .pdf). It is your responsibility to have easy access to a back-up copy of any work that you hand in (keep multiple back-ups of any computer media and save your work often). It is also wise to retain developmental versions and research materials.
- TurnItIn is used for some written submissions, and submission of an image file or other formats that defeat assessment will be considered to be a deliberate violation of academic integrity policies.
 - [University Syllabus Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>)
 - [University Attendance and Participation Policy F15-12](http://www.sjsu.edu/senate/docs/F15-12.pdf) (<http://www.sjsu.edu/senate/docs/F15-12.pdf>)
 - [University Grading System Policy F18-5](http://www.sjsu.edu/senate/docs/F18-5.pdf) (<http://www.sjsu.edu/senate/docs/F18-5.pdf>)

Determination of Grades

<i>Grade</i>	<i>Points</i>
<i>A plus</i>	<i>95 to 100</i>
<i>A</i>	<i>92.5 to 95</i>
<i>A minus</i>	<i>90.0 to 92.5</i>
<i>B plus</i>	<i>87.5 to 90.0</i>
<i>B</i>	<i>82.5 to 87.5</i>
<i>B minus</i>	<i>80.0 to 82.5</i>
<i>C plus</i>	<i>77.5 to 80.0</i>
<i>C</i>	<i>72.5 to 77.5</i>
<i>C minus</i>	<i>70.0 to 72.5</i>
<i>D plus</i>	<i>67.5 to 70.0</i>
<i>D</i>	<i>62.5 to 67.5</i>
<i>D minus</i>	<i>60.0 to 62.5</i>

Classroom Protocol

Disruptive participants will be removed from the zoom meetings. This will have obvious negative effects on the ability to pass the course. The class requires active engaged participation from each of the students and a continuing commitment to help others in the class learn the material is expected. The dates assigned for pop-quizzes and participation points will only approximate those presented in the schedule. I am making the

assumption that this class is your primary and dominant commitment for the entire period of each class meeting. “Splitting attention” is inappropriate and unlikely to yield success in the course. I expect the same level of attention as if this were an in-person class (i.e., it is unlikely that you’d get up to feed the dog, etc.).

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. counseling, tutoring, and other resources) are listed on [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo) (<http://www.sjsu.edu/gup/syllabusinfo>), which is hosted by the Office of Undergraduate Education. Make sure to visit this page to review and be aware of these university policies and resources. In part,

- [General Expectations, Rights and Responsibilities of the Student](#)
- [Academic Integrity](#)
- [Accommodation to Students' Religious Holidays](#)
- [Adding and Dropping Classes](#)
- [Attendance and Participation](#)
- [Accommodations for Students with Disabilities](#)
- [Consent for Recording of Class and Public Sharing of Instructor Material](#)
- [Timely Feedback on Class Assignments](#)
- [Workload and Credit Hour Requirements](#)

PSYC 120 (Advanced Research Methods) Summer 2022 Course Schedule

The CANVAS schedule will trump the .pdf schedule. It is subject to change with fair notice (via CANVAS, class discussion, and/or email).

Course Schedule

Date	Meeting Type	Points	Topics, Readings, Assignments, Deadlines	Due Date
Wed, June 1	Class	1	Cozby Chapter 1 SCIENCE OF BEHAVIOR Lab 0: Using Zoom	June 2
Thu, June 2	Class Lab	2 1	Cozby Chapter 2 WHERE TO START Lab 1: Graphing Lab Class Project 1: PARTICIPATION	June 7 June 9
Sun, June 5	QUIZ	.5 .5	QUIZ 1: INTRODUCTION Activity 1: REFLECTIONS	
Mon, June 6	Class (Lab)	1	Cozby Chapter 3 ETHICS Lab 2: Ethics Training	June 7
Tue, June 7	Class Lab	3 1	Cozby Chapter 3 Lab 3: Library Reference Lab Individual Project 1: EARLY TOPIC	June 9 June 8

Wed, June 8	Class	2	DISCUSSION (Class Project, Individual Project) Individual Project 2: Sources and Critical Analysis	June 12
Thur, June 9	Class	1.5 1	Cozby Chapter 4 RESEARCH FUNDAMENTALS Lab 3: Library Reference Lab (part 2) Class Project 2: Data Analysis Workshop	June 9 June 9
Sun, June 12	QUIZ	.5 1 1 .5 1	QUIZ 2: Ethics QUIZ 3: Design ACTIVITY 2: MIDTERM PREPARATION ACTIVITY 3: "METHODS" Section ACTIVITY 4: RELIABILITY	
Mon, June 13	Class Lab	2	Cozby Chapter 4 Class Project 3: RESULTS SUBMISSION	June 17
Tue, June 14	Canvas	10 3 2 1 1	MIDTERM #1 Lab 4: Observation Lab Class Project 4: METHOD SUBMISSION Individual Project 3: DESIGN Individual Project 4: MATERIALS	June 14 June 16 June 17 June 15 June 15
Wed, June 15	Class		Cozby Chapter 5 MEASURING CONCEPTS	
Thur, June 16	Class	1 1 1	Cozby Chapter 6 OBSERVATIONAL METHODS Lab 5: External Assignment Class Project 5: Methods meeting (from today to last possible) Classmate Data Participation Individual Project 5: DATA TIMELINESS (should be earlier)	July 1 June 22 June 21
Sun, June 19	QUIZ	1 2 1 1 1	ACTIVITY 5: CHI-SQUARE ACTIVITY 6: SCENARIOS QUIZ 4: OBSERVATION #1 QUIZ 5: OBSERVATION #2 QUIZ 6: Observation, Scales of Measurement	
Mon, June 20	Class Lab	2	Cozby Chapter 7 SURVEY RESEARCH Class Project 6 (final): METHOD RESUBMIT:	June 22
Tue, June 21	Class Lab	10 1 1	MIDTERM #2 Individual Project 6: ANALYSIS ACTIVITY 7: Latin Squares Counter-Balancing	June 21 June 23
Wed, June 22	Class	.5	Cozby Chapter 8 EXPERIMENTAL DESIGN ACTIVITY 8: QUESTIONNAIRES	
Thur, June 23	Class		Cozby Chapter 9 CONDUCTING EXPERIMENTS Cozby Chapter 10 COMPLEX DESIGNS	

Sun, June 26	QUIZ	1 .5 1 1	QUIZ 7: Phenomenology, Case Studies, Validity, ... QUIZ 8: DESIGN #1 QUIZ 9: Running Experiments QUIZ 10: DESIGN #2	
Mon, June 27	Class Lab		Cozby Chapter 10 Cozby Chapter 11 SINGLE-CASE, QUASI-EXP DESIGNS	
Tue, June 28	Canvas	10 1 2 1 1 1	MIDTERM #3 (working on individual project) Individual Project 7: Presentation Materials Individual Project 8: FINAL PRESENTATION (ORAL) Individual Project 9: Project Review (Others #1) Individual Project 10: Project Review (Others #2) Individual Project 11: Project Review (self-evaluation)	June 28 June 28 June 28 June 28 June 28 June 28
Wed, June 29	Class Lab		Cozby chapter 12 DESCRIPTION AND CORRELATION Cozby Chapter 13 STATISTICAL INFERENCE Cozby Chapter 14 GENERALIZABILITY	
Wed, June 29	QUIZ	1 1 1.5	ACTIVITY 9: CASE STUDY ACTIVITY 10: HOUSES QUIZ 11: STATISTICS	
Thur, June 30	Class	10	MIDTERM #4 (FINAL EXAM)	July 1
Friday, July 1	Lab	1 5	Lab 5: External Assignment Individual Project 10 (final): FULL APA WRITE-UP	July 1 July 1