Instructor: Jill Citron, PhD
Email: jill.citron@sjsu.edu
Phone Number: (408) 780-8838 - Messages Only
Office Location: DMH 230 & Zoom
http://zoom.us/j/96512319685

Course Description:
Advanced Research Methods (47903), Fall 2021

Prerequisites: Upper division GE complete; PSYC 1; STAT 95; PSYC 100W with C- or better (or department approval); Lower division Psychology or Behavioral Science Major.

Topics will include: hypothesis testing, validity, reliability, scales of measurement, experimental design, statistical significance, and effect size. Examples will include: experimental, correlation, conditional, and quasi-experimental research designs. The class may be sent through Canvas or MySJSU.

CANVAS and MYSJSU Messaging:
Copies of some course materials such as the syllabus, major assignment handouts, etc. may be found on Canvas and MySJSU.

Lab 12 - Wednesday 10:15 am - 12:15 pm - DMH 359
Lab 11 - Monday 10:15 am - 12:15 pm - DMH 359

118-10 - Monday and Wednesday 9:00 am - 9:50 am - Clark Hall 117
DMH 230 & Zoom
http://zoom.us/j/96512319685

Office Location:

Office Hours:

Phone Number:

Email:

Instructor:

Advanced Research Methods (47903), Fall 2021
PSYC 118-10, 11, 12
Department of Psychology
San Jose State University
Communication with Instructor
Use email, office hours, or class time to ask questions. I respond to email M-F 9:00-5:00. Please allow 1-2 days for a response. When emailing, include a relevant title and our course number (118-30/31 and lab section number if relevant). Phone calls are for leaving a voice mail only. If you have extensive questions about an assignment or class work, drop into office hours or make an appointment for a different time.

Course Goals and Student Learning Outcomes (CLOs)
Upon successful completion of this course, Psych 118 students will be able to:

CLO 1: Understand how psychology is a science in which people seek to gain knowledge about behavior and mental processes by running experiments and other types of studies. Assessment for this CLO will be in class activities, review of literature, assignment, Quiz #1, and Final Exam.

CLO 2: Understand how the scientific method is used in psychological research. Assessment for this CLO will be assessed by Quiz #1, class activities, and participation in the research process.

CLO 3: Understand the differences between the different types of studies and different types of research designs used in psychological research. Assessment for this CLO be in class activities, review of literature, assignment, Quiz #1, and Final Exam.

CLO 4: Understand why different research methods are needed for different research situations. Assessment of this CLO will be conducted with preparation assignments, Quiz #2, and Final Exam.

CLO 5: Understand and know the advantages and disadvantages of specific research methods. Assessment of this CLO will be conducted class activities.

CLO 6: Understand and know the vocabulary associated with psychological research methods. Assessment of this CLO will be class and laboratory activities.

CLO 7: Understand how to treat research participants ethically and why the ethical treatment of participants is important and necessary. Assessment of this CLO will be class and lab activities, and Quiz #1.

CLO 8: Understand the factors that can affect the ability of a research study to provide a sound answer to a researcher’s question and how to reduce or eliminate these factors. This CLO will be assessed by class assignments, research development, and Final Exam.

CLO 9: Understand why statistics are important and needed in psychological research. Assessment of this CLO will be assessed by class assignments, research development, and Final Exam.
CLO 10: Understand the meaning of statistical significance. Assessment of this CLO will be class activities, research process, and the Final Exam.

CLO 11: Conduct statistical analyses and interpret the results. *This CLO will be assessed by laboratory assignments, the research report, and Final Exam.*

CLO 12: Understand the limitations of the results of studies and draw appropriate conclusions from the results of research studies. *This CLO will be assessed by laboratory assignments, the research report, and Final Exam.*

CLO 13: Carry out a research study from beginning to end (including writing a research report). *This CLO will be assessed by the research report and research presentation.*

**Program Learning Outcomes (PLOs)**

Upon successful completion of the psychology major requirements, students will be able to:

- **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- 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.
The learning goals for this course fall into four categories that follow the construction of a research report. Learning outcomes for the first part of the course describes how the psychological sciences seek to gain knowledge about behavior and mental processes by running experiments and other types of studies. The second category will cover how scientific methods are used in psychological research. The third category will cover why statistics are important and needed in psychological research, choosing the appropriate statistical analyses, and interpret the results. The final goal is to apply our learning by carrying out a planned research experiment with a full research report and presentation.

**It is strongly recommended** that students use the Chrome Web Browser when using Canvas. Using the latest version of Chrome will decrease the number of glitches and errors you experience, as Canvas was developed using the Chrome platform. In addition, update your Canvas setting to receive messages from this course, as announcements are sent out on a regular basis.

**Note:** clearing your cache may help if you have trouble logging into the site.

**Accessing Course Canvas site**
To access the Canvas site go to [http://www.sjsu.edu/at/ec/canvas/](http://www.sjsu.edu/at/ec/canvas/) and click on “Log in to Canvas”

- **Username** = SJSU 9-digit ID
- **Password** = your current SJSUOne password

For additional information or help with logging in:
- **Canvas Student Tutorial**: [http://www.sjsu.edu/at/ec/canvas/](http://www.sjsu.edu/at/ec/canvas/)

**Required Textbook**

**Strongly Recommended**
Library Liaison
The SJSU library has a librarian who specializes in psychology (and other social sciences), and this librarian can serve as a very valuable resource for helping you to develop research ideas and locating appropriate research materials. The library also has an abundance of resources for doing psychology research: Christa Bailey, 408-808-2422, christa.bailey@sjsu.edu, http://libguides.sjsu.edu/psychology

Classroom Protocol
Students are expected to maintain a level of professional and courteous behavior at all times. You are required to put your cell phone and other distractions away before the beginning of class. I expect you to be respectful of your fellow classmates and to receive the same respect in return. This includes introducing distractions and unrelated comments during class. Students not abiding by these policies will be asked to leave the class.

*During the creation of this syllabus, we are all required to wear approved face masks in class to prevent the spread of Covid-19 and its variants. We may not like it, but we need to do it anyway. Please wash your hands throughout the day and use hand sanitizer frequently. We are all in this together and need to look out for each other. Should policy change at the university level, we will discuss how best to institute the changes in our class.

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, https://catalog.sjsu.edu/, policy section. The Late Drop Policy is available at https://www.sjsu.edu/aars/policies/latedrops/policy/. Please be aware that there are changes due to COVID-19 SIP. Information about the latest changes and new is available at the Advising Hub at https://www.sjsu.edu/advising/

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.

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.”

Assignments and Grading Policy
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. Expect that your grades in Canvas will continue to change throughout the semester. Do not contact me at the end of the semester asking if I will round up your grade. I want all of my students to do well and will always round grades up (not down) when possible.
In lectures we will learn advanced research methods using in-class activities, question-and-answer periods, demonstrations, and films. During the laboratory section we will be learning how to apply the principles of advanced research methodology directly into a complete research experiment, write-up and presentation. Attendance is 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.

The primary methods of assessment for this course will be a completed research report, research proposal, class presentation of research project, participation in peer review, one quiz, and final exam. The point value for each of the assignments can be found in the grading policy. Information about dates are included in the Course Calendar. 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. I promise you, no surprises!

It should be noted that the 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.

Laboratory
Lab attendance is critical to the successful completion of this course. Students will need access to a laptop during lab periods. If you do not have a laptop, you may borrow one from the Student Computing Center in the SJSU library. We will be using Qualtrics to create our online experiments. Qualtrics is available through e-campus. We will also be using Excel, available to all SJSU students, for data management and analysis.
Students will participate in creating a research project conducted over the span of the course. The project will be done in collaboration with research group members. Research groups will be created and meet during lab time. Research groups will be connected in CANVAS with a group web page to support the use of Google collaboration. Please note that group members must be registered for the same lab section.

Each laboratory assignment is designed to prepare you to successfully complete your research proposal, study, and report write-up. Lab work is graded as complete or incomplete, failure to participate in each step will interfere with your ability to complete the research project. Team participation in lab work is required. If you do not contribute to the project in a substantive way, you are taking advantage of others (hanger-on, cadger, freeloader, moocher, lounge lizard, etc.) Participation will be assessed by group evaluations at the end of the semester. Research group evaluations influence your course grade up to a full letter grade.

If you know that you will be unable to attend your scheduled laboratory section, do NOT to take this class.

As 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 insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”
Definition of a Credit Hour
Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course. As an example, the expectation of work for a 3-credit course is 150 minutes of direct faculty instruction and six-hours of out-of-class student work each week.

Please review the following sources and policies, as well:

- Office of Graduate and Undergraduate Programs’ Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/

Testing
Short quizzes and activities will be conducted throughout the semester to ensure that all students have a solid understanding of the material being covered. One cumulative final exam will be given at the end of the semester. The final exams will assess your ability to apply the concepts and content you have learned during the semester. Cheating on exams will not be tolerated.

- The final exam will on Thursday, December 9th @ 7:15 a.m.-9:30 a.m.

Research Project
Your research team will develop an original research hypothesis guided by parameters set by the instructor. Project work will take place during lab, lecture, and outside of class time.

Each research group will submit a full research proposal, collect and analyze their group data, write a professional level APA-style research report and give a quality presentation of your research findings. The paper will be a minimum of 12 pages in length (not including references, double-spaced, typed, 12-point font) and include a minimum of 20+ peer-reviewed, scholarly references. Each group will need to decide how to divide the writing of the proposal, recruitment, and data collection (along with deciding how to divide all of the other responsibilities involved in completing the project). The research proposal is a shared project.

Your final report will include shared group work and individual work. The title page, abstract, and discussion of your final paper submission must be your own independent work. The introduction, methods, and results may be shared with your group members.

Plagiarism of any kind will not be tolerated. Please refer to the section on Academic Integrity for information about the consequences of plagiarism. You must cite all of the sources that your information comes from and also use quotations when you are directly quoting information from a source.

- Your research report is due on Sunday, November 28th.

Research Group Presentation
Your research team will present a short slideshow outlining your project and findings. Clear instructions are provided on Canvas. Each student is responsible for submitting their own group presentation slideshow file by, Sunday, December 5th. Late reports will not be accepted.

Final Group Evaluation
Students will confidentially evaluate each of their group member for participation, cooperation, collaboration, work quality, and reflection. Students receiving low marks from their peers on this evaluation may have their final project grade reduced by a full letter grade. The group evaluation survey will be completed on the day of the final exam. Peer evaluations are considered part of the final project grade. Not completing peer evaluations will result in lost points.
**Definition of a Credit Hour**

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course. As an example, the expectation of work for a 3-credit course is 150 minutes of direct faculty instruction and six-hours of out-of-class student work each week.

Please review the following sources and policies, as well:

- Office of Graduate and Undergraduate Programs’ Syllabus Information web page at [http://www.sjsu.edu gup/syllabusinfo/](http://www.sjsu.edu gup/syllabusinfo/)

**Make-up Exams and Late Assignments**

There will be no late make-up exams or late work accepted (with the exception of a written medical excuse or prior approval). Please check your schedule to ensure that you have no conflicts with due dates. Again, no extensions for assignment will be given except in cases documented emergencies or prior approval.

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**Academic integrity**

Academic integrity is essential to the mission of San Jose State University. As such, students are expected to produce their own work (except when collaboration is expressly permitted by the course instructor) without the use of any outside resources. Students are not permitted to use old tests, quizzes when preparing for exams, nor may they consult with students who have already taken the exam. When practiced, academic integrity ensures that all students are fairly graded. Violations to the Academic Integrity Policy undermine the educational process and will not be tolerated. It also demonstrates a lack of respect for oneself, fellow students, the course instructor, and can ruin the university’s reputation and the value of the degrees it offers. The Student Conduct and Ethical Development is available at [https://www.sjsu.edu/studentconduct/](https://www.sjsu.edu/studentconduct/).

Completing the library guides on avoiding plagiarism and paraphrasing will help you identify plagiarism and how to avoid it. If you have any questions, do not hesitate to ask me.

Submission through Turn-It-In is required for all written assignments. Assignments not submitted using Turn-It-In, will not be graded until the problem is fixed. Work with IT to resolve any program issues that you may be having.
GRADING INFORMATION AND MAJOR ASSIGNMENTS:

Your final grade will be based on the number of points that you earn during the semester. The following table provides a breakdown of the points that you can earn during the semester.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>How Many?</th>
<th>Points Per Assignment</th>
<th>Total Points</th>
<th>Approximate % of Final Grade</th>
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</thead>
<tbody>
<tr>
<td>Quiz</td>
<td>1</td>
<td>25</td>
<td>25</td>
<td>8.5%</td>
</tr>
<tr>
<td>Peer Review</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>8.5%</td>
</tr>
<tr>
<td>Laboratory Activities</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>8.5%</td>
</tr>
<tr>
<td>Research Presentation</td>
<td>1</td>
<td>25</td>
<td>25</td>
<td>8.5%</td>
</tr>
<tr>
<td>Research Proposal</td>
<td>1</td>
<td>25</td>
<td>25</td>
<td>8.5%</td>
</tr>
<tr>
<td>Research Paper</td>
<td>1</td>
<td>150</td>
<td>150</td>
<td>50%</td>
</tr>
<tr>
<td>Cumulative Final Exam</td>
<td>1</td>
<td>25</td>
<td>25</td>
<td>8.5%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td></td>
<td><strong>300</strong></td>
<td><strong>100%</strong></td>
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Grading Scale:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 - 94</td>
<td>A</td>
</tr>
<tr>
<td>93 - 90</td>
<td>A-</td>
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<tr>
<td>89 - 87</td>
<td>B+</td>
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<tr>
<td>86 - 84</td>
<td>B</td>
</tr>
<tr>
<td>83 - 80</td>
<td>B-</td>
</tr>
<tr>
<td>79 - 77</td>
<td>C+</td>
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<tr>
<td>76 - 74</td>
<td>C</td>
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<tr>
<td>73 - 70</td>
<td>C-</td>
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<tr>
<td>69 - 67</td>
<td>D+</td>
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<tr>
<td>66 - 64</td>
<td>D</td>
</tr>
<tr>
<td>63 - 60</td>
<td>D-</td>
</tr>
<tr>
<td>59 or below</td>
<td>F</td>
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</tbody>
</table>

University Policies: Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs’ Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/.

PSYC 118-30/31/32, Fall 2021
Student Resources

Student Computer Resources –
Computer labs and other technological resources for students can be found in various places on campus:

- For information regarding the loan of laptops, tablets, and other computer materials; https://library.sjsu.edu/student-computing-services/student-computing-services
- For IT Support visit - https://www.sjsu.edu/it/support/service-desk/index.php
- For a list of software available to all SJSU students visit - https://library.sjsu.edu/student-computing-services/software-available

ACCESS Success Center
The Academic Counseling Center for Excellence in Social Sciences (ACCESS) Success Center “provides general education advising for undergraduate students majoring or intending to major in any of the departments in The College of Social Sciences.” Visit their webpage for more information and to schedule an online appointment, https://www.sjsu.edu/education/studentsuccesscenter/advising-and-tutoring.php.

Accessible Education Center (AEC)
Ability Redefined - Please reach out to me as soon as possible in the beginning of the semester, for any support. “If you need course adaptations or accommodations because of a disability, or if you need 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 requires that students with disabilities requesting accommodations must register with AEC to establish a record of their disability.” Academic Senate Policy F06-2 [pdf]

SJSU Peer Connections
Peer Connections website “offers free mentoring, tutoring, and supplemental instruction services for students at SJSU. Peer Educators are students just like you; they understand the triumphs and challenges of being a student at San José State University.” If you have questions about services, contact the Peer Connections at 408-924-2587 or email at peerconnections@sjsu.edu, or visit their webpage for more information, https://peerconnections.sjsu.edu/programs/tutoring/index.html

SJSU Writing Center– Check for different ways to access these services during the COVID-19 SIP.
The SJSU Writing Center “offers a variety of resources to help students become better writers, and all of our services are free for SJSU students.” If you have questions about services, call the Writing Center at 408.924.2308 or email us at writingcenter@sjsu.edu, or visit their webpage to make an online appointment https://www.sjsu.edu/writingcenter/

SJSU Counseling and Psychological Services (CAPS)
SJSU Counseling and Psychological Services invites “all students to come into Counseling and Psychological Services, located at the Student Wellness Center, room 300B, for any support. If you have questions about services, contact CAPS at (408) 924-5910 or email at counseling.services@sjsu.edu or visit their webpage, https://www.sjsu.edu/counseling/ Currently offered is a Therapist Assisted Online https://www.sjsu.edu/counseling/students/TAO/index.html “Therapy anytime, anywhere for anxiety and depression on your mobile device”.

PSYC 118-30/31/32, Fall 2021
Major Assignments

Below is a list of important course events. Clear instructions for each assignment are posted on Canvas. This list will help you in preparing for major assignments. Remember that there may be modifications in the schedule over the semester. It is your responsibility to keep track of these changes.

**Quiz 1**
Date: Wednesday, 9/29
Chapters: 1 - 8
Outcomes: Demonstrate a clear understanding of the need for scientific method and psychological science. Explain the basis of the IRB process and how to identify scientific fraud. Alternatives to experimentation, survey, formulating a hypothesis, types of variable, validity and reliability.

**Peer Review**
Date: Monday, 11/01 – Monday, 11/08
Outcomes: Provide helpful comments and suggests on five group research reports. A detail rubric will be available to help students in the review process.

**Research Proposal**
Due Date: Sunday, 10/3
Outcomes: Submit a polished research proposal. Present your hypothesis, why it is relevant, logical support for your experiment presented in a literature review. Included will be your complete methodology, plan for statistical analysis, and materials that will be used in your experiment.

**Research Presentation**
Date: Monday, 11/22 – Monday, 12/06
Due Date: Slide submission, Sunday, 12/5
Outcomes: Present a group presentation that demonstrates understanding of choosing an appropriate study design, interpretation of statistical findings, present study strengths and limitations, and potential avenues for future research.

**Research Report**
Date: Sunday, 11/28
Outcomes: Submit a polished research report in APA style. The completed report will present the statistical analysis and interpretation on the data you have collected.

**Final Exam**
Date: Thursday, December 9th 7:15 am – 9:30 am
Lectures: All
Chapters: All

In the detailed calendar below. Assignments submitted through Canvas Lecture are green. Those assignments submitted through Canvas Lab are blue.
# Psychology 118: Advanced Research Methods

**Sections: 10/11/12, Fall 2021**

## Course Schedule

*This schedule is subject to change with fair notice.*

| M – 08/23 | **Course Introduction and Expectations** | Lab Activity #1 | Sunday 08/29  
Say Your Name!  
Practice Assignment.  
Power Info Tutorial  
Plagiarism Tutorial  
Paraphrasing Tutorial  
Student Information Survey  
Introduction Flip Grid. |
|-----------|----------------------------------------|----------------|-----------------------------------|
| **M – 08/23** | Review of syllabus  
Course Requirements  
Review of Covid-19 Safety Protocols | **Lab Activity #1** | **MANDATORY LAB ACTIVITY #1**  
DUE: The end of your lab day. |
| **PART ONE - FOUNDATIONS** | **PART ONE - FOUNDATIONS** | **PART ONE - FOUNDATIONS** | **PART ONE - FOUNDATIONS** |
| **1** | **Scientific Method** - Chapter 1  
Wed 08/25  
- The Need for Scientific Methodology  
- Logic of the Scientific Methods  
- Basic Tools of Psychological Research  
- Scientific Explanation in Psychological Research | **Lab Activity #1**  
Research Group Selection Process-  
Students will randomly meet in groups of three  
These meetings will be used to share ideas research ideas and to think about who you would like to form a group with.  
Once the class exercise has been completed, each student will fill out a lab survey, including the names of the **four** individuals that you would like to work with.  
Group assignment will be sent out by email. Group web page will be created for you and there will be a simple assignment to confirm your access. | **MANDATORY LAB ACTIVITY #1**  
DUE: The end of your lab day. |
<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Lab Activity</th>
<th>Due Dates</th>
</tr>
</thead>
</table>
| 2    | Research Ethics – Chapter 2  
Mon 08/30  
- History of Research Ethics  
- Institutional Review Board (IRB)  
Wed 09/01  
- Treatment of Animals in Research  
- Scientific Fraud | Lab meetings Week-2-6 will be used to complete the following activities:  
**Lab Activity #2**  
Identify research topics of interest and conduct an exploratory literature review. | Lab Activity #2 - Due the day before your next lab. |
| 3    | Mon 09/06 – No Class – Labor Day  
Alternatives to Experimentation: Nonexperimental Designs – Chapter 3  
Wed 09/08  
- Study techniques that do not manipulate antecedent conditions.  
- Conducting new research using previously collected data  
- Learn the techniques employed in observational research.  
- Learn the basics of qualitative research. | **Lab Activity #3**  
Identify a research topic based on your group’s findings from Lab #3. The completion of this lab will support you in developing an hypothesis statement. | Lab Activity #3 - Due the day before your next lab. |
| 4    | Alternatives to Experimentation: Surveys and Interviews – Chapter 4  
Mon 09/13  
- Survey and interview research  
- Developing questionnaires and survey questions.  
Alternatives to Experimentation – Chapter 5  
Wed 09/15  
- Advanced techniques that do not manipulate antecedent conditions  
- Correlations, other correlational-based methods, and quasi-experimental designs | **Lab Activity #4**  
Conduct Literature Review  
Develop statement of hypothesis  
Identify Variables for Experiment and Several Options for how these Variables may be Used in your Study | Lab Activity #4 – Due the day before your next lab. |
<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Lab Activity</th>
<th>Due Dates</th>
</tr>
</thead>
</table>
| 5    | Formulating the Hypothesis – Chapter 6 Mon 09/20  
• Learn the differences between nonexperimental and experimental hypotheses  
• Understand the components of a good experimental hypothesis.  
• Explore where hypotheses come from  
Basics of Experimentation – Chapter 7 Wed 09/22  
• Independent and Dependent Variables  
• Operational Definitions | Lab Activity #5  
Conduct Literature Review  
Develop Statement of Hypothesis  
Identify Dependent Variables for your Experiment. Identify Several Options for how these Variables may be used in your Study.  
Choose Experimental Design and Method for Collecting Data. | Lab Activity #5– Due the day before your next lab. |
| 6    | Variables – Chapter 8 Mon 09/27  
• Evaluative Operational Definitions | Continue to work on research proposal Lab Activity #6 | Research Proposal Due – 10/03 |
<p>| **   | ** PART TWO - METHODS | ** | ** |</p>
<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Lab Activity</th>
<th>Due Dates</th>
</tr>
</thead>
</table>
| 7    | Research Proposal Meetings  
Mon 10/04  
Research Proposal Group Meetings  
Mon 10/06 | Research Group Meetings | During this week, all groups will meet with me during their scheduled time. There will be NO regular lectures or labs. |
| 8    | Basic Between-Subjects Designs – Chapter 9  
Factorial Design – Chapter 10  
Mon 10/11  
- Subject assignment  
- Simple two-group designs and controlling for confounding  
- Conduct experiments with more than two groups.  
Within-Subjects Designs – Chapter 11  
Wed 10/13  
- Learn designs in with subjects participate in more than one experimental condition  
- Learn how to control for problems specific to these designs. | Lab Activity #9  
Build Database  
Enter Data | Lab Activity #6– Due the day before your next lab. |
| 9    | Within-Subjects Designs – Chapter 11  
Mon 10/18  
- Control Problems  
- Strategies for controlling order effects | **  
PART THREE – RESULTS: COPING WITH DATA | **  
** |

PSYC 118-30/31/32, Fall 2021
<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Lab Activity</th>
<th>Due Dates</th>
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</table>
| 9    | **Statistics are _______!** - Materials in Module Wed 10/20  
- Review of the basics  
- Being a savvy consumer of statistics  
- The importance of Confidence Intervals and And p values |            |             |
| 10   | **Why We Need Statistics** - Chapter 13  
Mon 10/25  
- Learn how hypotheses are tested in experiments  
- Understand the meaning of significance levels  
**Analyzing Results** – Chapter 14  
Wed 10/27  
- Learn how to select the appropriate statistical tests.  
- Understand the concept of variance in an experiment | **Lab Activity #10**  
Prepare results section. | **Lab Activity #7 – Due the day before your next lab.** |
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<tbody>
<tr>
<td>11</td>
<td>Mon 11/01 – Drawing Conclusions – Chapter 15</td>
<td></td>
<td>During this week, all groups will meet with me during their scheduled time. There will be NO regular lectures or labs.</td>
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<td>Wed 11/03 – Writing the Research Report Chapter 16</td>
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<tr>
<td>12</td>
<td>Mon 11/08 – Writing Lab</td>
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<td>During this week, all groups will meet with me during their scheduled time. There will be NO regular lectures or labs.</td>
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<td>Wed 11/10 – Writing Lab</td>
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| 13   | Research Group Meetings Mon 11/15 | Open Lab | Peer Review  
Monday, 11/08 – Sunday, 11/15  
Provide comments and suggests on five group research reports. A detailed rubric will be provided to help students in the review process. |
|      | Research Group Meetings Wed 11/17 |              |                                                                            |
|      | Research Group Meetings Mon 11/22 | Open Lab |                                                                            |
|      | No Class – Thanksgiving Break Wed 11/24 |              |                                                                            |
| 14 | **Research Group Presentations**  
Mon 11/29 | **FINAL DAY FOR RESEARCH PAPER SUBMISSION**  
Sunday, November 28th  
SUBMIT YOUR FINAL RESEARCH REPORT. REPORTS MUST BE SUBMITTED INDIVIDUALLY. |
|---|---|---|
| 15 | Mon 12/6 **Research Group Presentations**  
**Final Exam**  
Thursday, December 9th  
7:15 am – 9:30 am | **FINAL DAY FOR PRESENTATION SLIDE SHOW SUBMISSION**  
Sunday, December 5th  
SUBMIT YOUR PRESENTATION SLIDE SHOW. SLIDE SHOWS MUST BE SUBMITTED INDIVIDUALLY. |