San José State University
Social Sciences/Department of Psychology
Psyc 120, Advanced Research Methods and Design,
Fall, 2018 Sections: Lecture(30) (31/32LAB)

Course and Contact Information
Instructor: Sandra Trafalis, Ph.D.
Office Location: DMH 232
Telephone: (408) 924-5614
Email: Sandra.Trafalis@sjsu.edu
Office Hours: M/W 3-4:00 pm or by Appointment
Class Days/Time: Lecture Tuesday/Thursday 4:30-5:45
Lab Tuesday 6:00-8:00pm Section 31
Lab Thursday 6:00-8:00pm Section 32
Classroom: Lecture: DMH 161
Lab: DMH 339
Prerequisites: Psyc 1, Stat 095, and Psych 100W

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:

1. SLO 1 Understand the differences and limitations of experimental and correlational research designs.
2. SLO 2 Evaluate psychological research as to its reliability, validity, utility, and adherence to ethical guidelines.
3. SLO 3 Identify threats to validity in research, including confounds and threats to generalizability.
4. SLO 4: Execute a research project utilizing experimental design and interpret the results.
5. 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…

1. 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.

2. 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.

3. 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.

4. 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 Texts/Readings

Textbook


Other Readings
1. Course Lab Manual (Found in CANVAS)
2. Other assigned readings can be found in CANVAS
Other equipment / material requirements

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

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.

- 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. The point value for each of the assignments is 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.
- The research project requires students to conduct independent research, including data collection.
- 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.

Labs: Lab attendance is mandatory and critical to successful completion of this course. 6. Access to DMH 339 (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. It is strongly recommended that you obtain a copy of SPSS through SJSU. The software is free and having access to the software outside of lab time can help you meet research project deadlines.

Students will participate in a research group for the course. Research groups will meet during lab time and work on a group research project. The project will be done in collaboration. Research groups will assigned through CANVAS. Please note that group members must all attend the same lab in order to work together as a group for the entire course. You will be assigned a lab number found in CANVAS.

The instructor will also assign lab work to prepare you to successfully complete your research papers. While the labs are not formally graded, failure to participate will likely mean you will have difficulty completing the research projects. If your team participates in the labs and you do not, it means that you are a social loafer and this is not good for morale of your team. 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.”
Ethics Homework Assignment, Homework #1: HPPERT Certificate: 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 of Health at [http://phrp.nihtraining.com/users/login.php](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 10% points. **This assignment is an individual assignment and will be graded individually. Each student must upload the certificate to CANVAS.**

Peer Evaluations, Lab #1: consists of **peer evaluations and participation is considered as part of the final grade for the project.** Not completing a peer evaluation will result in the loss of points for the entire research group. The peer evaluation will be conducted for your experimental stimulus materials. Because peer evaluation is essential to the project, there is a make-up opportunity and students will be docked 15% for not completing the assignment by the due date as found in the course calendar. **Students will be graded on group participation, collaboration, work quality, and level of preparation.** Please see CANVAS for the peer review checklist and specific instructions. To receive credit, students must turn in their stimulus materials to CANVAS and complete a brief assignment about what modifications will be made to the materials for final data collection. One student from each group will upload their stimulus materials. However, all students must complete the written assignment earn full credit.

Research Proposal, Lab #2: Lab #2 is a group project that consists of your proposal for your research paper. The sections include: Title Page, Problem statement, Review of the Research, Statement of Hypotheses, Method Section, and References.

**Completion of Data Collection, Lab #3:** 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%). **Each student in the group must upload the data file AND participate in technical consultation/data entry lab to earn full credit for this assignment.** Lab time may be used to upload the assignment and complete the assessment.

**Completion of Data Analysis, Lab #4:** Students must participate in the technical consultation/data and analysis lab to earn full credit for this assignment. **Each student will upload the SPSS output file to CANVAS after participating in the lab and complete an online assessment in CANVAS.** Lab time may be used to upload the assignment and complete the assessment.

**Technical Consultation:** Students will receive guidance and assistance with assignments during class and lab. There is also a formal time assigned to each group on the course calendar for individual meetings with the instructor. Students will come prepared with questions and other research project materials, including their stimulus materials and Lab #2. During this time, students will receive feedback and have the opportunity to ask questions. Attendance will be graded as Credit/No Credit.

**Final Presentation:** Each research team will present their study and its findings to the class in a 15-20 minute presentation. **Students will be graded as a group for this assignment.** Presentation dates are assigned by research group number, and the course calendar provides information about the presentation dates for each group. Students will receive feedback on their presentations at the end of the class or during their scheduled lab period, as time permits. In order for a grade to be assigned, you must upload the presentation into CANVAS.
**Final Research Paper:** 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 between 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 final research paper will be at least 12 pages in length (double-spaced, typed, 12-point font) and will include between 20 peer-reviewed, scholarly references. The instructor must approve all topics and stimulus materials prior to data collection. Students will be graded as a group for this assignment.

**Lab Manual:** This assignment will be completed individually, however, students may collaborate to complete the lab manual. The lab manual is provided as a word document so students may print the lab manual and turn in a completed hard copy. You may type or handwrite your answers.

**Final Exam:** There will be a final exam that consists of an essay where you will write about what you learned from your research project. This assignment is independent, and each student will receive an independent grade. This assignment is due on the day of the final exam. Please check course calendar for this date.

**Final Group Evaluation:** Students will evaluate each group member for participation, cooperation, collaboration, and work quality. Students receiving low marks from their peers on this evaluation will have their final project grade reduced by 8%. This will be completed on the day of the final exam. Please check course calendar for this date.

**Grading Policy**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>How many?</th>
<th>Points per assignment</th>
<th>% of Final Grade</th>
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</thead>
<tbody>
<tr>
<td>Final Assessment</td>
<td>1</td>
<td>50</td>
<td>5%</td>
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<tr>
<td>Lab Assignments</td>
<td>4</td>
<td>50</td>
<td>35%</td>
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<tr>
<td>Homework</td>
<td>1</td>
<td>50</td>
<td>5%</td>
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<tr>
<td>Lab Manual</td>
<td>1</td>
<td>50</td>
<td>5%</td>
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<tr>
<td>Final Research Paper</td>
<td>1</td>
<td>100</td>
<td>25%</td>
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<tr>
<td>Presentation</td>
<td>1</td>
<td>100</td>
<td>25%</td>
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<td>92-90</td>
<td>A-</td>
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<td>89-88</td>
<td>B+</td>
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<td>87-83</td>
<td>B</td>
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<td>82-80</td>
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<td>79-78</td>
<td>C+</td>
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<td>72-70</td>
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<td>64 or less</td>
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</table>
Late Work: All assignments must be submitted by the scheduled due date. Late assignments will lose 20% of total points for every weekday that 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

Late Assignments: In the event that a late assignment is accepted, students will not receive feedback and the assignment will not be graded until the end of the semester.

Make-up Work: 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. 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.

Posting of Grades: Final grades will be posted to My.SJSU no earlier than the final 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/F13-1.pdf for more details.

Classroom Protocol

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 participation points, in-class group activities, and video 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.
Please note that for some matters such as your grade, missed classes, and/or questions about assignments it is best to see me in person during office hours. If you plan on stopping by please email me ahead of time so I know you plan to stop by. 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 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 do not mind responding to questions over email, however, some issues are best discussed in person during my office hours. If I feel your question is best discussed in person, I will email you and ask you to stop by my office. Please contact me via email and 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 by my office during office hours or call me and leave a voice message. I will respond to you as soon as possible.

If you plan on stopping by please email me or call ahead of time so I know you plan to stop by. *If you miss a class, you should get the notes from another student and review them prior to seeking out the instructor.*

**In labs, you will not:**
1. Check email or send emails, unless directly related to this course
2. Talk on your cell phone or send text messages, unless directly related to this course
3. Surf the internet, unless directly related to this course
4. “Shoot the bull” (i.e., engage in lengthy chats about topics unrelated to this course)

**University Policies**

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/](http://www.sjsu.edu/gup/syllabusinfo/)

**Workload and Credit Hour Requirements**
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 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.
Course Schedule

*Please note that this is the planned course schedule and this calendar may be revised to accommodate student learning. Changes will be announced in class.*

<table>
<thead>
<tr>
<th>Week/D Date</th>
<th>Tuesday</th>
<th>Thursday</th>
<th>Topic</th>
<th>Lab Activity</th>
<th>Reading</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>8/21</td>
<td>8/23</td>
<td>Overview of the Course</td>
<td>Week 1 Group Member Selection Process—Groups will be officially registered in CANVAS and Assigned a Group Number. Group Numbers determine the date of your presentation and individual consultation meeting with instructor.</td>
<td>Chapter 1</td>
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<tr>
<td>Week 2</td>
<td>8/28</td>
<td>8/30</td>
<td>Understanding the Research Literature Project Overviews</td>
<td>The first part of the lab for the course is designed for students to complete the following activities:</td>
<td>Chapter 2/3</td>
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<tr>
<td>Week 3</td>
<td>9/4</td>
<td>9/6</td>
<td>9/3 Campus Closed for Labor Day Ethics in Research</td>
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<td>Chapter 3</td>
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<td>Week 4</td>
<td>9/11</td>
<td>9/13</td>
<td>Hypothesis Testing</td>
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<td>Chapter 4</td>
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<td>Week 5</td>
<td>9/18</td>
<td>9/20</td>
<td>Students Complete Ethics Certificate Measuring Variables &amp; Selecting Participants</td>
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<td>Chapter 5/6</td>
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<td>Week 6</td>
<td>9/25</td>
<td>9/27</td>
<td>Class Meeting 1 Class &amp; Lab Assignment: Please complete ethics certificate and submit by midnight to link. Measuring Variables &amp; Selecting Participants</td>
<td>Ethics Training Certificate Completion is due by SECOND CLASS MEETING of 9/26. Ethics training found on <a href="http://phrp.nihtraining.com/users/login.php">http://phrp.nihtraining.com/users/login.php</a>. You will need to upload your certificate to Canvas—you will need to cut and paste the certificate into a word document or equivalent and then upload the file. Failure to submit to Canvas could lead to a deduction of points. You cannot collect data unless you have a completed certificate.</td>
<td>Chapter 7 &amp; 8</td>
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<td>Week 7</td>
<td>10/2</td>
<td>10/4</td>
<td>Experimental Design</td>
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<td>Chapter 14</td>
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<td>Week 8</td>
<td>10/9</td>
<td>10/11</td>
<td>Writing the Research Proposal</td>
<td>Preparation of Stimulus Materials and Completion of Data Collection plan Lab # 1 Stimulus Materials: Please bring your stimulus materials for peer review process. Bring Stimulus Material Checklist to class—8 Copies</td>
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<td>Week/Date</td>
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<td>Thursday</td>
<td>Topic</td>
<td>Lab Activity</td>
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<td>Week 9</td>
<td>10/16</td>
<td>10/18</td>
<td>Analyzing your Data: Descriptive Statistics Analysis of Variance Data Collection Begins</td>
<td>Each group will bring 1 set of stimulus materials (8 conditions) with 1 checklist for each condition. 10/8 Groups 1-6 will conduct peer evaluation during class time and debrief during lab period. 10/10 Groups 7-13 will conduct peer evaluation during class time and debrief during lab period.</td>
<td>Chapter 13</td>
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<tr>
<td>Week 10</td>
<td>10/23</td>
<td>10/25</td>
<td>DATA COLLECTION WEEK</td>
<td>Lab #2: Research Proposal Literature Review, Hypotheses, Method, References, Stimulus Materials (Due by the second class meeting of Week 9) Lab #1: Peer Review Make ups for partial credit due by 10/29.</td>
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<tr>
<td>Week 11</td>
<td>10/30</td>
<td>11/1</td>
<td>Individual Group Consultations during Class Lecture with Each Research Group. Technical Consultation with Instructors Group Consultations 1-3 (Class meeting 1) Group Consultations 4-6 (Class meeting 2)</td>
<td>Collect Data for Research Project YOU MUST COMPLETE DATA COLLECTION by the second meeting of WEEK 11.</td>
<td>Chapter 13</td>
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<tr>
<td>Week 12</td>
<td>11/6</td>
<td>11/8</td>
<td>Communicating your Results Oral Presentations Technical Consultation with Instructors Groups 4, 5, 6 (Class meeting 1) Groups 7, 8, 9 (Class meeting 2)</td>
<td>Lab #3 COMPLETED SPSS Data File must be uploaded by Week 12 (Due by the second class meeting) Input &amp; Analyze Data in SPSS</td>
<td>APA Manual Ch 4</td>
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<td>Week 13</td>
<td>11/13</td>
<td>11/15</td>
<td>Communicating your Results The Final Research Technical Consultation with Instructors Groups 10, 11, 12 (Class meeting 1) Groups 13, 14, 15 (Class meeting 2)</td>
<td>Analyze Data in SPSS All Data inputted and analyzed Prepare results section and discussion section Students work on papers/presentations</td>
<td>APA Manual CH 6</td>
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<td>Week 14</td>
<td>11/20</td>
<td>11/27</td>
<td>Groups 1, 2, 3 (Class meeting 1) Student Presentations *** Communicating your Results Oral Presentations 11/21 &amp; 11/22 No Class, Happy Thanksgiving!</td>
<td>Incorporate instructor feedback/peer review feedback. Your final paper includes: Title Page, Abstract, Introduction, Results, Methods, Discussion, References, SPSS Output, Data File, Data Collection Tool.</td>
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<td>Week 15</td>
<td>11/27</td>
<td>11/29</td>
<td>Student Presentations *** Groups 4, 5, 6 (Class meeting 1) Groups 7, 8, 9 (Class meeting 2) 3 Presentations per Class Period</td>
<td>Incorporate instructor feedback/peer review feedback. Your final paper includes: Title Page, Abstract, Introduction, Results, Methods, Discussion, References, SPSS Output, Data File, Data Collection Tool.</td>
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<td>Week/Date</td>
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<td>Lab #3 COMPLETED SPSS Data File must be uploaded by Week 15 (Due by the second class meeting)</td>
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</table>
| Week 16   | 12/4    | 12/6     | Student Presentations ***
Groups 10,11,12 (Class meeting 1)
Groups 13, 14,15 (Class meeting 2)
3 Presentations per Class Period | Incorporate instructor feedback/peer review feedback. Your final paper includes:
Title Page, Abstract, Introduction, Results, Methods, Discussion, References, SPSS Output, Data File, Data Collection Tool. | Final Papers are Due by Last Day of Class
Lab Manual Due on the Last Day of Class |

~~~~~Final Exam: Friday, December 14, 2018~~~~~2:45-5:00pm

*Found in CANVAS
**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.
******Students attend only 1 lab as per their assigned section number. You must be in the same lab as your group members.
If you find any errors, please them to me so that I can update the syllabus.