

## Introduction to Experimental Methods (PSYC A280)

Orange Coast College

Fall 2021

Lecture/Lab ZOOM Meetings (Section #21105)

Tuesday and Thursday, 5:30 – 7:00 pm

Faculty: Lora Connor

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Course Website: <http://loraconnor.com/psych280/>

Office Hours: **Thurs ~7:00 PM– 7:30 PM via Zoom**

**Prerequisites:** Psychology A100 or A100H and completion of or concurrent enrollment in Psychology A160 or Mathematics A160 or Mathematics A160H.

### Course Materials

- **Required:** Cozby, P.C., & Bates, S.C. (2021). *Methods in behavioral research* (14th ed.). Boston: McGraw-Hill (ISBN: 9781260205589)
- **Recommended:** American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6<sup>th</sup> ed.). Washington, D.C.: American Psychological Association.

**Course Description:** This course addresses the principles and techniques which enter into experimental research concerning behavior and emphasizes designing, conducting, analyzing, and reporting research in the behavioral sciences.

**Purpose of the Course:** Students will be introduced to behavioral research rationale and its application. The course will be organized around the decision-making processes involved in the development of experimental research. The reasons for conducting experiments, types of experiments, adequate sampling, appropriate methodologies, and statistical treatment of the data will be emphasized. It is expected that the student will develop a familiarity with research terminology, conducting experiments, the analysis and interpretation of data, and the reading and writing of APA papers.

### Student Learning Outcomes:

1. Identify, describe, and apply the critical concepts and elements of good research design.
2. Critically review and analyze published psychological research studies to determine the type of research, critical variables addressed, definitions of key concepts, and which statistical analyses used.
3. Critically synthesize the elements of good experimental design to conduct, to analyze statistically, and to write a correctly formatted (American Psychological Association style) research report.

–This syllabus is subject to change or revision due to the need to make course adjustments based on the instructor’s judgement. This syllabus (and any changes to it) should be seen as a roadmap to help students attain academic success and maximize their potential.

## Course Requirements and Assignments

**Exams:** There are 3 exams taken online. Tests will consist of multiple-choice items and short essay questions. They will be based on the textbook, handouts, lectures, and other activities. A test review session will be held before each exam. **Exams cannot be made-up.**

**Lab Projects:** Lab projects will emphasize integrating information from the course (e.g., textbook, handouts, and lecture), developing research skills, conducting research, and writing APA format papers. These projects will be conducted at various times during classes.

**Group Lit Review Project: Practicing Literature Review & Sourcing Topics:** Students will form Groups of ~ 3 to 4 individuals to practice literature review & sourcing topics. Students will choose from various topics, find peer review articles and other valid sources to argue and support their theories. Groups will create PowerPoint presentations to present to the class. Projects will be scored on the strength of the sources they use to support their theories.

**Group Research Project:** Students will form groups of ~ 3 to 4 to conduct a collaborative research study based on current literature on an agreed upon topic of interest to group members. Groups will formulate a research question to study, develop a research hypothesis, and design an experiment. Projects will be scored on creativity and strength of the design. Individuals who fail to fully contribute to their group project, as assessed by the instructor and **Peer Ratings**, will be penalized.

**Written Papers:** There are 2 APA research papers required in this course. The second paper is done in two steps. These papers include:

- Paper #1: Stroop Experiment, APA Format Paper
- Papers #2: Research Paper (**A. Research Proposal & B. Final Research Paper**)

The Research Proposal Paper will include a Title Page, Abstract, Introduction section with Literature Review, Method section, Statistics section, and Possible Outcomes section. It should have at least 2 cited peer reviewed references, 1 alternative resource (as explained in class), and 1 news source (this does not include citations for tests or questionnaires used). The Final Research Paper will include the final draft of the Research Proposal Paper, with the Statistics section updated to the Results section and the Possible Outcomes section changed to the Discussion section. **Although students will collaborate and work together in groups to complete research projects, they will write their own independent Research Papers.**

**Group Research Presentation:** Each group will present its research findings and explain the significance of the findings to the class in a 15-minute oral presentation. Presentations will be based on the Final Research Project/Paper. Individuals who fail to fully contribute to their group project, as assessed by the instructor and Peer Ratings, will be penalized.

**Late Papers & Assignments:** Most assignments are due the following week after they have been assigned on Sunday midnight, although some due dates vary. **Due dates can be found on Canvas in the Assignments section.** Late papers & assignments are dropped 1 full grade (i.e., 10%) for each day they are late, **except the APA RESEARCH PAPER #2 A, B, & C. No late submissions will be accepted for this paper.**

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**Attendance and Participation:** Zoom meetings will be held at **5:30 PM** every Tues & Thurs. Attendance to Zoom meetings is mandatory and DOES COUNT TOWARD YOUR PARTICIPATION GRADE. Lectures, question and answer sessions, and hands-on instruction will be given during these meetings to assist students with the more advanced lab work and assignments. Attendance is automatically recorded by the Zoom software and will be used for participation points. Excellent attendance is essential in Psychology 280, as the lectures contain important material and lab work learning new skills in research and statistics which students may find difficult without assistance.

**Academic Honesty:** Cheating and/or plagiarism will result in an "F" grade, as well as disciplinary action from the Dean of Students Office. Work is checked for plagiarism.

**Drops:** If you decide to drop the course, it is your responsibility to do so before the published deadlines or you may end with an "F" in the class. I do not give incompletes to students who are unable to complete the coursework.

Coursework	Points	Subtotals	% of Total Grade
Labs Assignments	260		
<b>LABS TOTAL</b>		<b>260</b>	<b>33%</b>
APA Paper #1: Stroop Experiment	50		
Research Proposal APA Paper #2A	75		
Research Final APA Paper #2B	50		
<b>RESERCH PAPERS TOTAL</b>		<b>175</b>	<b>22%</b>
Literature Review & Sourcing Topics	50		
Final Research Presentation	40		
<b>PRESENTATIONS TOTAL</b>		<b>90</b>	<b>11%</b>
Exam 1	75		
Exam 2	75		
Exam 3	75		
<b>EXAMS TOTAL</b>		<b>225</b>	<b>28%</b>
Participation	50		
<b>PARTICIPATION</b>		<b>50</b>	<b>6%</b>
<b>GRAND TOTAL</b>		<b>800</b>	<b>100%</b>

<b>A 720-800</b>	<b>B 640-719</b>	<b>C 560-639</b>	<b>D 480-559</b>	<b>F 0-479</b>
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# Fall 21 Semester

<https://lorac Connor.com>

LEGEND  
 T: Tuesday  
 TH: Thursday  
 Lec: Lecture

Date	Week	Lectures/Labs	Due	Assignment
Aug 31 – Sep 2	Week 1	<b>T:</b> Welcome Lec/ Research Grp Assignments <b>TH:</b> Ch 1 Lec/ Research Project Appr Form Instructions	1. Sep 5 2. Sep 26	1. Ch 1 Assignment 2. Research Project Appr Form
Sep 7 – Sep 9	Week 2	<b>T:</b> Ch 2 Lec <b>TH:</b> Intro to Internet Lib & Research/Lit Review & Sourcing Topics Instructions	1. Sep 14 & 16 2. Sep 19	1. Presentations: Lit Review & Sourcing 2. Ch 2 Assignment
Sep 14 – Sep 16	Week 3	<b>T/TH:</b> Lit Review & Sourcing: Presentations <b>(IN-CLASS Only)</b>		
Sep 21 – Sep 23	Week 4	<b>T:</b> APA Format & Evaluating Sources Lec <b>TH:</b> Cummins Article Instructions	1. Sep 26	1. Cummins Article-APA Format Activity
Sep 28 – Sep 30	Week 5	<b>T:</b> Ch 3 Lec/Informed Consent Instructions <b>TH:</b> Ch 4 Lec	1. Oct 3 2. Oct 3	1. Ch 3 Module: Ethics in Behavioral Research 2. Ch 4 Assignment
Oct 5 – Oct 7	Week 6	<b>T:</b> Ch 5 Lec <b>TH:</b> Exam Review	1. Oct 10	1. Ch 5
Oct 12 – Oct 14	Week 7	<b>T:</b> Exam #1 <b>TH:</b> Review Writing a Research Proposal Lec/Stroop Experiment Lab <b>(IN-CLASS Only)</b>	1. Oct 17 2. Oct 17	1. Stroop Worksheet 2. Stroop Experiment APA Format Paper #1
Oct 19 – Oct 21	Week 8	<b>T:</b> Ch 6 Lec w/ Observational Lab <b>(IN-CLASS)</b> <b>TH:</b> Ch 7 Lec	1. Oct 24 2. Oct 24 3. Oct 24 4. Oct 31	1. Ch 6 2. Observational Lab 3. Ch 7 4. Begin APA Format Research Proposal Paper #2A
Oct 26 – Oct 28	Week 9	<b>T:</b> Class Survey & Evaluating Data in Excel & SPSS Lab <b>(IN-CLASS Only)</b> / Review-Writing a Research Proposal Paper #2A <b>TH:</b> Experimenting with a Data Set in SPSS Lab <b>(IN-CLASS Only)</b>	1. Oct 31 2. Oct 31	1. Class Survey Activity 2. Experimenting with a Data Set in SPSS
Nov 2 – Nov 4	Week 10	<b>T:</b> Ch 8 Lec <b>TH:</b> Ch 9 Lec	1. Nov 7	1. Ch 9 Assignment

Nov 9 – <del>Nov 11</del>	Week 11	<b>T:</b> Ch 10 Lec/Lab ( <b>IN-CLASS</b> )/ Exam Review <b>Veteran's Day</b>	1. Nov 14	1. Ch 10 Assignment
Nov 16 – Nov 18	Week 12	<b>T:</b> EXAM <b>TH:</b> Ch 11 Lec/ Ch 12 Lec	1. Nov 21	1. Ch 12 Assignment
Nov 23 – <del>Nov 25</del>	Week 13	<b>T:</b> Ch 13 Lec <b>Thanksgiving Day</b>	2. Nov 28	2. Ch 13 Assignment
Nov 30 – Dec 2	Week 14	<b>T:</b> Ch 14 Lec <b>TH:</b> Final research Paper #2B Lec/ Research Presentations Lec	1. Dec 5 2. Dec 5	1. Choosing the Correct Statistical Tests Assignment 2. Is it Correlation or an Experiment
Dec 7 – Dec 9	Week 15	<b>T:</b> Research Presentations/ Q & A for APA Format Final Research Paper #2B <b>TH:</b> Research Presentations/ Exam Review	1. Dec 12 2. Dec 16	1. Evaluating Methods in Popular Media 2. Final Research Paper #2B
Dec 14 – Dec 16	Week 16	<b>T:</b> Final Exam <b>TH:</b> Peer Reviews	1. Dec 16	1. Peer Reviews