Introduction to Experimental Methods (PSYC A280)
Orange Coast College - Fall 2026

Course Information

Section #20635
Hybrid Lecture/Lab:

- **Lecture**: In-Person meetings
  - T/Th 5:00 pm - 6:25 pm
  - Class location: LLSS 102
- **Lab:** On-line
  - Course Website: **http://loraconnor.com/psych280/**
  - Canvas

Instructor Information

Faculty: Lora Connor
Email: **lconnor1@occ.cccd.edu**
Office Hours Upon Request: **Mon 12:30 PM –1:30 PM**
Office Hours Available through the CCCD Zoom link in Canvas

Prerequisites

Psychology A100 or A100H and completion of Psychology A160 or Mathematics A160 or Mathematics A160H.

Course Materials

- Required: Cozby, P.C., & Bates, S.C. (2021). *Methods in behavioral research* (15th ed.). Boston: McGraw-Hill (ISBN: 9781260718904)
- Recommended: American Psychological Association. (2020). *Publication manual of the American Psychological Association 2020: the official guide to APA style* (7th ed.). American Psychological Association. (ISBN: 9781433832161)

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.

–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.

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.

Course Requirements and Assignments

Exams: There are 3 take home exams. Tests will consist of multiple-choice items and short essay questions. They will be based on the textbook, handouts, lectures, and other activities. Test study guides can be found on the class website. **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. Many lab activities and assignments will only be available In-Class and are done together with the instructor. The moniker "IN-CLASS" in red font is noted next to these kinds of lab assignments on the class website: https://loraconnor.com/psych280/curriculum/lectures-labs

Group Lit Review Project: Students will form Groups of ~ 3-5 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 ~ 3-5 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 APA Format 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 3 cited peer reviewed references and 1 alternative source (as explained in class). 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.

–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.

Group Research Presentation: Each group will present its research findings and explain the significance of the findings to the class in a 15 to 20-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. No late submissions will be accepted for this paper.**

Attendance and Participation

In-person meetings will be held at **5:00 PM** every Tues & Thurs. Attendance 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. Excellent attendance is essential in Psychology 280, as the lectures contain important information and labs help with learning new skills in research and statistics.

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.

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.

Academic Accommodations

If you have a documented disability and need accommodations for this class, please see me as soon as possible or contact the Disabled Students Programs & Services (DSPS) for assistance. The DSPS offices can be reached at (714) 432-5807. Students with disabilities are protected under Family Education Rights and Privacy Act (FERPA). Students must provide documentation before they are entitled to accommodations.

Other Student Services: Consult the Student Services website for a list of important campus agencies and phone numbers, including: Learning Resource Center, Counseling, Student Health Services, and the Success Center. Please see the Orange Coast College Class schedule catalog for more details on these services.

–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.

Points

Coursework	Points	Subtotals	% of Total Grade
Labs & Assignments	280		
LABS TOTAL		280	32%
APA Paper #1: Stroop Experiment	50		
Research Proposal APA Paper #2A	75		
Research Final APA Paper #2B	50		
RESERCH PAPERS TOTAL		175	20%
Literature Review & Sourcing Topics	50		
Final Research Presentation	50		
PRESENTATIONS TOTAL		100	11%
Exam 1	75		
Exam 2	75		
Exam 3	75		
EXAMS TOTAL		225	26%
Participation	~100		
PARTICIPATION		~100	11%
GRAND TOTAL		880	100%

Grading

A 792-880	B 704-791	C 616-703	D 528-615	F 0-527

Calendar: Lectures, Labs, Assignments, Exam

Semester Schedule
https://loraconnor.com/

LEGEND
T: Tuesday
TH: Thursday
Lec: Lecture

Week Starting Date (i.e., Monday)	Week	Lectures/Labs	Due	Assignment
8/24	Week 1	**T**: *Welcome Lec *Ch 1 Lec *Research Grp Assignments *Research Project Appr Form Discussion **TH**: *Ch 1 Lec Cont. *Ch 3 Lec *Informed Consent Instructions	1. Aug 30	1. Ch 1 Assignment: Scientific Understanding of Behavior
8/31	Week 2	**T:** Ch 3 Lec Cont. & * Ch 9 Lec **TH: *** Ch 9 Lec Cont. *Ch 2 Lec	1. Sep 6 2. Sep 6	1. Ch 3 Assignment: Ethics in Behavioral Research 2. Ch 9 Assignment: Confounding Variables
9/7	Week 3	**T/TH:** *Ch 2 Lab: Internet & Library Research (points to be added to Ch 2 Module) **(IN-CLASS Only)** *Group Research Project Discussions	1. Sep 8 2. Sep 13	1. Ch 2 Lab: Internet & Library Research 2. Ch 2 Module: Library Research & APA Format Citations
9/14	Week 4	**T/TH**: *Lit Review & Sourcing Topics Instructions **(IN-CLASS Only)** *Group Work on Presentations		

9/21	Week 5	**T:** *Lit Review & Sourcing: Presentations **(IN-CLASS Only; Groups 1, 2, 3)** **TH:** *Lit Review & Sourcing: Presentations **(IN-CLASS Only; Groups 4, 5, 6)** **EXAM #1 (See Study Guide on Website; Chap 1, 2, 3, 9) (Take-Home: Requires Respondus LockDown Browser + Webcam)**	1. Sep 22 2. Sep 24 3. Sep 27	1. Grp 1, 2, 3 Presentations: Lit Review & Sourcing 2. Grp 4, 5, 6 Presentations: Lit Review & Sourcing 3. **EXAM #1**
9/28	Week 6	**T**: *Ch 4 Lec *Labs: Ch 4 Validity **(IN_CLASS Only)** **TH:** *Ch 5 Lec *Lab: Ch 5 Reliability **(IN-CLASS Only)**	1. Sep 29 2. Oct 4 3. Oct 1 4. Oct 4	1. Ch 4 Lab: Validity 2. Ch 4 Assignment: 3. Ch 5 Lab: Reliability 4. Ch 5 Assignment: Reliability, Validity, & Reactivity
10/5	Week 7	**T**: ***Ch 6 Lec *Observational Lab **(IN-CLASS Only)** **TH**: *Writing a Research Proposal Lec *Stroop Experiment Lab **(IN-CLASS Only)**	1. Oct 11 2. Oct 11 3. Oct 8 4. Oct 18	1. Ch 6 Assignment: Quantitative & Qualitative Analysis 2. Observational Lab 3. Stroop Worksheet & SPSS Output 4. **APA Format Paper #1: Stroop Experiment**
10/12	Week 8	**T/TH**: *Ch 7 Lec * Intro to SPSS Lab **(IN-CLASS Only)**	1. Oct 18 2. Oct 15	1. Ch 7 Assignment: Survey Research 2. Intro to SPSS Lab
10/19	Week 9	**T:** *Class Survey Lab **(IN-CLASS Only)** **TH**: *Ch 8 Lec *Group research project discussions. **(IN-CLASS Only)** ***EXAM #2 (See Study Guide on Website; Chap 4, 5, 6, 7, 8) (Take-Home: Requires Respondus LockDown Browser + Webcam)**	1. Oct 20 2. Oct 25 3. Oct 23	1. Class Survey Lab 2. **EXAM #2** 3. Research Project Appr Form
10/26	Week 10	**T**: *Rap Session: Prof & Groups Discuss Research Projects/ Design/ Materials/ Analyses **(IN-CLASS Only)** **TH**: *Ch 10 Lec *Lab: Ch 10 Complex Exp Design **(IN-CLASS Only)**	1. Oct 30 2. Nov 8	1. Ch 10 Lab: Complex Experimental Designs Worksheet 2. **APA Format Paper #2A: Research Proposal**
11/2	Week 11	**T**: * Ch 11 Lec & * Ch 12 Lec *Lab: Ch 12 APA Format Tables **(IN-CLASS Only)** **TH**:	1. Nov 3 2. Nov 8 3. Nov 8	1. Ch 12 Lab: APA Format Tables (In-Class) 2. Ch 12 Assignment: Correlation Coefficients 3. Informed Consent for Research Participants
11/9	Week 12	**T:** *Ch 13 Lec & *Ch 14 Lec *Lab: Ch 13 Reporting Results **(IN-CLASS Only)** **TH**: *Final research Paper Lec *Research Presentations Lec	1. Nov 10 2. Nov 15 3. Nov 15	1. Ch 13 Lab: Reporting Results (In-Class) 2. Ch 13 Assignment: Understanding Research Results 3. Choosing the Correct Statistical Test Assignment
11/16	Week 13	**T/TH:** *Work on Final Research Paper/Projects/Presentations	1. Dec 6	**APA Format Paper #2B: Final Research Paper**

11/23	Week 14	**Happy Thanksgiving!** 		
11/30	Week 15	**T:** *Research Presentations **(IN-CLASS Only; Groups 4, 5, 6)** **Th:** *Research Presentations **(IN-CLASS Only; Groups 1, 2, 3)**	1. Dec 1 2. Dec 3	1. Grp 4, 5, 6 Presentations 2. Grp 1, 2, 3 Presentations
12/7	Week 16	**T: *EXAM #3 (See Study Guide on Website; Chap 10, 11, 12, 13, 14)** **(Take-Home: Requires Respondus LockDown Browser + Webcam)** **TH:** * Peer Reviews	1. Dec 8 2. Dec 10 3. Dec 11	1. **EXAM #3** 2. Peer Reviews 3. Participant Signed Consent Forms