

Dr. Bonnie Thorne You can call me Dr. Thorne or Professor. Pronouns: she, her, hers

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Office: 5-109 Office hours: Mon. and Wed. 9:30 - 9:55; 1:25 - 2:25. No appointment is needed.

E-mail: bthorne@cpp.edu. Please send e-mail from your Cal Poly e-mail account or Canvas rather than from your personal e-mail account. Include either the days and time of the course or the section number in the subject line. I will respond to your e-mail within 48 hours (Monday -Friday). I usually do not check e-mail after 5:00 p.m. or on weekends.

Course Prerequisites. Psy 2201, Psy 2204 and Psy 3307/3307L.

Course Objectives.

This course is designed to further your knowledge of experimental research methods. Students will learn aspects of advanced research design including how to design and conduct an experiment from coming up with a research idea to completing a research project. Students will also learn to critically evaluate research.

Required Texts.

1. Gravetter, Frederick J. & Forzano, Lori-Ann B. (2018). *Research methods for the behavioral sciences*. (6th ed.) Boston: Cengage Learning.

The textbook is a part of the bookstore's *Instant Access* program which allows students access to their course materials, in digital format, by the first day of class at discounted prices. Because the textbook is part of *Instant Access*, students DO NOT need to purchase the book from the bookstore or another source. Instead, by registering for this course, a materials charge for the cost of the book (labeled EBOOKS) is added to your CPP student account. Payment is due by the end of the add/drop period and should be paid via Bronco Direct. Additional information regarding the program will be sent to you from the bookstore. Make sure you open any messages from Cal Poly Pomona Bookstore:

[<no-reply@verbasoftware.com>](mailto:no-reply@verbasoftware.com).

You may opt out of the program at any point up to the add/drop deadline and have the charge reversed if you wish to acquire the textbook by other means. However, by doing so you will give up access to these materials through the *Instant Access* program after the cut-off date for opting out has passed. After that cut-off date you are responsible for the charges if you have remained opted in. If you have questions about this program or wish to opt out, visit <https://www.broncobookstore.com/instant-access.asp>

2. CogLab5, 1 term, Instant Access 5th Edition.

CogLab is a set of experiments that we will use in activity. You can purchase through the Bookstore or directly from the publisher at the link below. The cost is \$50.00 from either source. Your purchase gives you access to the experiments.

<https://www.cengage.com/c/coglab-5-5e-francis/9781285461083/>

You must purchase CogLab access before your activity the second week of class: Aug. 30 or Sep. 1, depending on which day your activity is scheduled. **CogLab is NOT part of Cal Poly's Instant Access program.** The name *Instant Access* in the title is not a reference to Cal Poly's program. You will get class registration information and start experiments on Aug. 30 or Sep. 1. You do not have to set up CogLab prior to the first activity.

Class and Activity Formats.

Both class (lecture) and activity will meet on campus fully in person. There is no online component to the course.

Course Requirements.

1. Exams.

There will be two midterms and a final exam. Each exam will consist of multiple choice and essay questions. Each midterm is worth 90 points and the final is worth 105 points. The final exam is cumulative. Midterms are partially cumulative. Exams will be administered during the class meeting time.

Note that the final exam will be held on the last day of class, Dec. 1.

2. Research Project, Paper and Presentation.

Students will design and conduct an experiment and write an APA-style paper on the experiment. The experiment cannot be the same as one you have done in a previous class. You may work individually or in groups of two or three. All group members must be enrolled in the same activity. If you work in a group, you will write your outline and proposal as a group. For your paper, you can write the paper as a group or you can opt to write the paper individually. The Experiment outline, Research proposal, Final paper and Research presentation will be described in more detail in separate handouts. Due dates are listed below. All assignments are due at 11:59 p.m.

It is essential that you work regularly on your experiment and that you stay in contact with your group members.

1. Experiment Outline	Due Sep. 22	The experiment outline will describe your research ideas. The outline must be approved before you collect data. Late outlines will be penalized 5 points a day.
1a. Exper. Outline Revision	Due 5 days after feedback is sent	
2. Informed Consent and Sona description	Due Oct. 6	
3. Research Proposal	Due Oct. 11	The proposal will consist of the Introduction and Method sections.
4. Experimental materials	Due Oct. 18	All groups should have submitted some or all materials prior to this deadline. This is the final deadline. Materials include instructions to participants, debriefing, as well as any specific materials (e.g., words to be presented or questionnaires used). Materials that have already been approved do not need to be resubmitted.
5. Qualtrics Link to experiment	Due Oct. 25	Your experiment must be created and finalized in Qualtrics by this date. It is your responsibility to ensure that your experiment works correctly in Qualtrics.
6. Data collection	Start by Nov. 1 at the latest	
7. Final paper	Due Dec. 6 11:59 p.m.	The paper will consist primarily of the Abstract, Introduction, Method, Results, and Discussion sections. Late papers will be accepted until 11:59 p.m. on Dec. 7. Late papers will be penalized 10 points.
8. Research Presentation	Dec. 6 9:00 - 10:50 a.m.	Students will present their projects to the class during the time allotted for the final. Attendance is mandatory. Students are expected to be present for all presentations.

3. Attendance.

Class attendance is required. Students can miss three classes for any reason. For any other classes that are missed, three points per class missed will be deducted from your point total. Absence due to illness will be excused with a doctor's note that states that you are excused from school.

****You do not need to inform me if you have Covid, but if you do inform me, I am required to report it to the university. If faculty learn that students have received a positive Covid test, have Covid symptoms or had close contact with a confirmed positive person, they must report that information to the university.**

You will not be excused if you miss class due to work. If you are late 20 minutes or more or if you leave 20 minutes or more before the end of class, you will be counted as absent.

4. Activity.

Activity will be devoted to aspects of the research project and CogLab experiments. Once research groups are formed, I will meet with groups most weeks. Assignments will consist primarily of CogLab experiments: students will participate in and answer questions about the assigned experiments. A few assignments will cover other topics such as Qualtrics. See the *Activity Schedule* posted under your Activity section. Each assignment is worth 8 points. Two points (of the 8 points) will be for attendance. Assignments must be submitted by 11:59 p.m. on the activity date for full credit. If you do not turn the assignment in on time, you can make up the assignment for full credit if you have an acceptable excuse that you can document (e.g., illness with a doctor's note). If you don't turn in the assignment for any other reason (e.g., work), you can make it up but only 4 points are possible. All late assignments must be turned in within a week of the original due date (with rare exceptions such as hospitalization) and must be submitted before we discuss results of the experiment in activity. Please note that although you earn an activity grade separately from the lecture grade (that is, I have to submit grades for each), activity and lecture will be treated as one class. Therefore, your activity grade will be the same as the lecture grade.

5. Discussion Board

Two discussion board posts are required early in the semester. Posts are due Sep. 1 and Sep. 3 and are on the Activity discussion board. All posts are due at 11:59 p.m. See the Discussion Boards for details.

6. Ethics Training.

To demonstrate understanding of ethical issues in psychological research, students must complete the online ethics training at <https://www.citiprogram.org/default.asp>. Click on *Register*. Use the first option *Select Your Organization Affiliation*. Enter the name of the university (or part of the name) to find it on the drop down menu. Follow the instructions to create your username and password. Complete *Introduction to Human Subjects 101* and email a copy of your certificate of completion by **Oct. 4** (PDF or other formats are fine) at 11:59 p.m.

If you completed the training for another class, you do not need to do it again (as long as your certificate of completion is not expired); just turn in proof of completion. Two points will be deducted from your total in the course for every day your certificate is late. **You will not be permitted to collect data until you complete the training.**

7. Library Instruction

There will be a library orientation/instruction on Sep. 20 at 10:00 in 15-2907 (second floor of the library building). The session will cover PsycINFO and other resources. Attendance is mandatory. If you do not attend, 5 points will be deducted from your total points earned.

8. Ethics Assignment

The ethics assignment involves participation in discussion of ethics articles on Sep. 22 and submitting answers to questions prior to the discussion by Sep. 21 at 11:59 p.m. The assignment is worth 3 points. Assignment details will be posted on Canvas.

9. Social Psychology Presentations.

This will be a group presentation on Nov. 15 or 17. The presentation will consist of an application of research concepts to classic experiments in social psychology. Requirements will be described in more detail in a separate handout. Students must be present to earn points (with rare exceptions such as hospitalization).

10. Research Participation.

Students are required to complete 2 Sona credits (equivalent to two hours) by participating in research conducted by Psychology Department faculty or students. Most studies are 15 minutes to one hour long.

You can participate in any combination of studies that add up to two hours. The Sona administrator will create a participant account for you. Sign up for studies at <https://cpp.sona-systems.com>. The last day to participate is Friday, Dec. 3 but you should plan to participate before then. Research participation is worth 20 points.

You do not need to inform me when you have participated in research. I have access to this information via the Sona system. I will post your points earned late in the semester.

If you prefer not to participate in research, you can complete an alternative assignment. The assignment involves reading and writing a one-page summary of a research article. To earn one credit, the article must be six or more pages long. To earn .5 credit, the article can be five pages or fewer. For more information, see the *Sona Alternative Research Assignment* handout. The alternative assignment must be submitted to the Sona Systems Alternative Research organization, NOT to me by the deadline of **Friday of Week 14 at 5 p.m.**

Any questions about the Alternative Research Assignment should be directed to the Sona administrator, Dr. Kevin Autry ksautry@cpp.edu.

You may also combine research participation and the alternative research assignment to earn the two credits.

Academic Integrity.

Plagiarism

The following sections on plagiarism and cheating are from the 2021 - 2022 university catalog:

Plagiarism is falsification or fabrication, it is presenting words, ideas or work of others as one's own work.

Plagiarism includes, but is not limited to: copying homework, copying lab reports, copying computer programs, using a work or portion of a work written or created by another but not crediting the source, using one's own work completed in a previous class for credit in another class without permission, paraphrasing another's work without giving credit, and borrowing or using ideas without giving credit.

Cheating

Cheating includes, but is not limited to: unauthorized "crib sheets," or notes during an exam, copying from another, looking at another student's exam, opening books when not authorized, obtaining advance copies of exams, and having an exam regraded after making changes. Additionally cheating is prohibited on homework, academic assignments for credit, exams given during classes, final exams...

Plagiarism and cheating are violations of university policy. Students who commit plagiarism or cheat will receive a zero for the assignment or exam, a possible failing grade for the course, and their conduct will be reported to the Director of Student Conduct.

Exam Policies.

1. No one will be permitted to start an exam once the first person has finished and left the classroom.
2. Early exams are not permitted. This includes the final exam. There are no exceptions to this policy.
3. Make-up exams are not permitted except in unusual situations. If you are ill on the day of an exam, you will be able to take a make-up exam only if the following conditions are met:

* You notify me of your illness on the day of the exam

* You have documentation that you visited a doctor or other healthcare provider on the day of the exam

Make-up exams consist entirely of essay questions. Exams must be taken within two weeks of the original test date.

Class Environment.

- Please do not text or otherwise use your phones during class. Phones should be turned off and out of sight, not on your desk. Research shows that the mere presence of a cell phone decreases cognitive performance. Research also shows an association between increased in-class texting and lower grades.
- You may use your laptop computer to take notes, but do not search the internet or do other work on the computer during class time.
- Students may not record (audio or video) in this class except in accordance with ADA accommodations. Any recordings made in connection with disability accommodations are for the student's personal academic use only and may not be distributed in any manner to any other individual.
- No animals are permitted in class (except for service animals).

Grading.

Exam 1	90
Exam 2	90
Final exam	105
Discussion Board	6
Ethics assignment	3
Experiment Outline	10
Research Proposal	40
Final Paper	100
Project Presentation	20
Social Psy Presentation	15
Activity assignments	80
Research participation	<u>20</u>
	579

The grading scale will be as follows:

A	521 - 579
B	463 - 520
C	405 - 462
D	347 - 404
F	Below 347

Pluses and minuses will be assigned within each grade range.

If you have questions about your grade during or after the semester, please see me during office hours. I cannot send grade-related information via e-mail.

Other.

- Assignments (CogLab assignments, research proposal, etc.) should be submitted through Canvas (NOT email) unless otherwise noted.
- Title IX reporting. If a faculty or staff member learns of a sexual assault, domestic violence or stalking involving a student, we are required to report it to the campus Title IX coordinator. Reporting is required whether the incident occurred on or off campus. We must disclose all details of the incident including the identity of the victim and perpetrator. The Title IX coordinator is required to investigate. If you would like to talk to someone who does NOT have to report the incident, contact Survivor Advocacy Services on campus (909) 869-3102 survivoradvocacy@cpp.edu. Survivor advocates provide free, confidential assistance.
- If you need me to fill out a form on your academic progress, see me during office hours or leave it with me at the end of class to pick up the next class meeting.
- Any student who is registered with the Disability Resource Center and needs accommodations based on the disability may contact me privately to discuss his/her/their specific needs.
- You are welcome in my office. Appointments are not necessary during office hours; just stop by. If you cannot come during office hours, contact me and we can arrange another time. Come talk to me if you are having difficulty in the course, or for any reason.

Course Outline. Note that dates may change for some topics.

Date	Topic	Chapter
Week 1 August 23	Introduction	Chapter 1
August 25	Fundamentals of Experiments; Operational Definitions	Chapter 1; Chapter 3: Section 3.1 & 3.4
Week 2 August 30	Fundamentals of Experiments; Operational Definitions	Chapter 3: Section 3.1 & 3.4; Chapter 7
Sep. 1	Experimental Outline; Introduction to Factorial Designs	Chapter 11: Sections 11.1 & 11.2
Week 3 Sep. 6	HOLIDAY	
Sep. 8	Introduction to Factorial Designs; Hypothesis Development; Literature Review	Chapter 11: Sections 11.1 & 11.2; Chapter 2
Week 4 Sep. 13	Parts of a Research paper; Paper requirements	Chapter 2 & 16
Sep. 15	Ethics	Chapter 4
Week 5 Sep. 20	LIBRARY INSTRUCTION	
Sep. 22	Experiment Outline Due Ethics	Chapter 4; Posted ethics readings
Week 6 Sep. 27	Ethics; Scales of Measurement; Validity and Reliability of Measurement	Chapter 4; Chapter 3: Section 3.2 & 3.3
Sep. 29	EXAM 1	
Week 7 Oct. 4	Ethics Training Certificate Due Internal and External Validity	Chapter 6; Chapter 3: Section 3.5
Oct. 6	Informed Consent & Sona Description due Internal and External Validity; Experimenter and Subject Effects; Demand Characteristic	Chapter 6; Chapter 3: Section 3.5
Week 8 Oct. 11	Research Proposal Due Experimental Design: Between- subjects designs	Chapter 8
Oct. 13	Experimental Design: Between and Within-subjects designs	Chapter 8 & 9

Date	Topic	Chapter
Week 9 Oct. 18	Final Deadline for Experiment Materials Experimental Design: Within-subjects designs; Counterbalancing; Factorial Design	Chapter 9 & 11
Oct. 20	Factorial Design	Chapter 11
Week 10 Oct. 25	Qualtrics Experiment Link due Theories; Sampling; Understanding graphs	Chapter 5; Chapter 15: p. 382 - 385
Oct. 27	Understanding graphs	Chapter 15: p. 382 - 385
Week 11 Nov. 1	DATA COLLECTION MUST BEGIN BY TODAY at the latest Understanding graphs	Chapter 15: p. 382 - 385
Nov. 3	EXAM 2	
Week 12 Nov. 8	Meta-analysis; Interpreting and Writing Results	Chapter 16
Nov. 10	Quasi Experimental Design	Chapter 10
Week 13 Nov. 15	Social Psychology (presentations)	
Nov. 17	Social Psychology (presentations)	
Week 14 Nov. 22	Quasi Experimental Design	Chapter 10
Nov. 24	Single-subject/Small-n designs	Chapter 14
Week 15 Nov. 29	Review	
Dec. 1	FINAL EXAM 10:00 - 11:15 a.m.	

Date	Topic	Chapter
Finals Week Dec. 6	RESEARCH PRESENTATIONS/ 9:00 - 10:50 a.m. NOTE THE EARLIER TIME Attendance is mandatory PAPER DUE by 11:59 p.m.	