

PSY 453 – Cognitive Psychology Lab

Syllabus for Spring 2025

Tues/Thurs

Course Information

Room: Clark C72 (basement)

Section: L03 or L04

Days: Tues/Thurs

Time:

-> **Section L03: 1:00 PM – 2:40 PM**

-> **Section L04: 3:00 PM – 4:40 PM**

Instructor Information

Name: Haley McCoy (she/her)

Email: haley.mccoy@colostate.edu

Office Hours: By appointment –

<https://outlook.office.com/bookwithme/user/3ef9ffa80b4d422f899ff037da8554c4@colostate.edu?anonymous&ep=plink>

(this link is also in my email signature & posted on Canvas)

Course Coordinator: Dr. Matthew Rhodes

Email: matthew.rhodes@colostate.edu

Course Prerequisites/Corequisites

You are required to meet the following before taking this lab:

1. PSY 250 - Research Methods I (*completed*)
2. PSY 452 - Cognitive Psychology (*previously or currently enrolled*)

Otherwise, it is expected that at this point in the curriculum you will have all taken a basic Office/computer skills course (e.g., you must know how to use Excel!). If you have forgotten any material, it will be your responsibility to refresh yourself.

You should also be familiar with how to use the library's research article databases or some other method of searching and accessing academic research papers.

Course Communication

All course materials will be posted via [Canvas](https://canvas.colostate.edu) (canvas.colostate.edu). Please refer to the course website for important announcements, to turn in assignments, to view this syllabus, and for any other information related to this class.

You can reach me either via email or Canvas messaging – whichever you prefer. **If you email me, be sure to include the course number and section number somewhere in your email (preferably in the subject line).**

Course Description

PSY 453, Cognitive Psychology Laboratory, will provide students with active immersion in the scientific process within cognitive psychology. We will achieve this through hands-on experimental demonstrations of important concepts in cognitive psychology along with an opportunity to lead an independent research project to experience the procedures that are used to answer questions about cognition.

Course Goals

Upon completion of this course, you should:

- Be able to understand basic principles of topics such as perception, attention, memory, metacognition, judgments and decision making, and problem solving
- Have direct experience with important phenomena from cognitive psychology
- Be familiar with searching for, interpreting, and understanding scientific literature
- Understand how the scientific method operates in cognitive psychology, including hypothesis generation and testing, identifying independent and dependent variables, and creating well-rounded studies
- Be able to communicate the details of a research study and its outcomes
- Engage effectively with people with a diversity of backgrounds, experiences and perspectives.
- Demonstrate writing competence for different purposes.
- Exhibit presentation skills across a range of settings.
- Recognize the roles of individuals, groups and teams in effective collaboration.

Required Texts

There is no required text for this course and all required reading will be provided on Canvas or in class.

Other Required Materials

You will need to bring **your laptop** (& a charger, just in case) to class! We will use **Excel** and **JASP** to complete statistical analyses – that means **you need Excel and JASP downloaded** to your computer! Each program is available for free download. Instructions for downloading will be posted to canvas.

You will be given class time to complete any analyses and there are also options for you to use these programs outside of class. Most of these programs are included on the computers in the undergraduate computer lab – BSB 009. You should also have them downloaded to your computer.

There will also be a few experiments that use **PsychoPY** – a software for creating cognitive psychology experiments. This is also free for you to download with instructions posted on Canvas. **You will need PsychoPY downloaded** to your computer to complete some experiments in class!

If you do not have a laptop, chat with me! You should be able to borrow one each class period from the back of the room, the library, or the Psychology main office. I can help you out with that :) You can also check out chargers from the library!

Supplemental Materials

CSU Writing Center: Since most assignments require writing components, I highly recommend utilizing CSU's writing center. They provide free consultations to all CSU students for any writing assignments or other writing help. I have received help even for grant applications and resumé's. You can make an appointment at <https://writingcenter.colostate.edu/>

A recent *APA writing style reference* is recommended. Online sources are acceptable in lieu of the APA style manual, provided their information is correct.

A working microphone may be beneficial but is not required.

CSU libraries will be helpful in finding articles for your final project (or your general curiosity). <https://lib.colostate.edu/> You could also use google scholar (but log into the library system first so you have all that access to the articles CSU pays for; <https://scholar.google.com/>)

Credit/Clock Hours

I (the instructor) am here to help you! I encourage you to email your questions, comments, and concerns without hesitation, whenever you feel it is necessary. There is no such thing as "too many emails" – I am here to provide you with this service. However, do not expect emails to be answered outside of normal business hours (i.e., M-F 8-5), and in general, please allow **at least 48 hours** for me to respond to your message. Emails sent only hours before an assignment is due may not be answered in time, nor is it the instructor's obligation to do so.

Office hours will be by appointment. You can use the Microsoft Booking link above to sign up! (<https://outlook.office.com/bookwithme/user/3ef9ffa80b4d422f899ff037da8554c4@colostate.edu?anonymous&ep=plink>)

It is expected that students will make every effort to answer their questions before contacting the instructor. This includes actively reviewing lecture material and posted announcements. In the case that a question is received regarding content which is clearly posted, you may be referred to consult that material.

Grading

As a student enrolled in this course, one of your responsibilities is to submit course work by the due dates listed on Canvas. With that said, the instructor takes their role very seriously, and, in fact, cares about how well you do in this course and that you have a rewarding learning experience. To that end, it is their commitment to you to respond individually to the work you submit in this class and to return your work in a timely manner. Smaller weekly assignments will be returned within one week and major assignments and essays will be returned within two weeks. If, however, due to unforeseeable

circumstances, the grading of your work takes longer than these listed times, you will be informed of the updated schedule and every effort will be made to return your work as soon possible.

| Assignment* | Points |
|---|------------|
| Reading a Research Article Worksheet | 20 |
| Experiment Participation (11; 10 pt. ea.) | 110 |
| Lab Reports (11; 20 pt. ea.) | 220 |
| In-class activities (10; 10 pt. ea.) | 100 |
| FINAL PROJECT ASSIGNMENTS | |
| Background literature worksheet | 10 |
| Springboard Article Worksheet | 10 |
| Final Project Worksheet | 10 |
| Submit experiment materials (pt 1) | 10 |
| Submit experiment materials (pt 2) | 10 |
| Participation in each other's experiments | 20 |
| Data prep/analysis worksheet | 10 |
| Presentation | 70 |
| Total course points possible: | 600 |

| | | |
|-----------|----------|-----------|
| 98-100% | 92-98% | 90-91% |
| A+ | A | A- |
| 88-89% | 82-87% | 80-81% |
| B+ | B | B- |
| 78-79% | 70-77% | |
| C+ | C | |
| 60-69% | 0-59% | |
| D | F | |

****Important Note:** Your final grade will reflect the total number of points you have earned. Averages will not be re-calculated, nor will grades be curved.*

Details about the course structures and your assignments

For the first half of the class, you will complete experiments and write up lab reports on them. Before/during/following a brief lecture on that module's topic, an **experimental demonstration** occurring in class will involve running replications and/or extensions of some classic studies in cognitive psychology. You will receive 10 points for being present in class and participating in each experiment. With that data, we will create plots, descriptive statistics, and run inferential statistical tests together in class. These findings will go into a **lab report**. For each experiment, you will submit a lab report worth 20 points. These will require you to answer a series of questions about the experiment conducted, focusing on method, findings, concepts, and implications.

Your very first assignment will be to read a research article and answer questions about it in the **research article worksheet**. This assignment will aid you in reading papers and may help you as you progress through the course. You will need to read research articles for your final project, so this assignment may be something you want to come back to later.

Weeks 2-6 will follow a schedule with lectures on Tuesday and data analysis on Thursday. Weeks 7-9 will ramp up the pace a bit and have lectures, experiments, and data analysis all on the same day. Starting in week 10, you will begin part 2 of the course where you will work on your final project.

For the **Final Project**, you will design and run your own experiment. You will have a series of assignments that will help you complete your experiment, culminating in a final presentation of your project to your peers. The **background literature worksheet** will have you find a few articles explaining some important background for the topic you are interested in. These articles may include important experiments or theoretical background. The **springboard article worksheet** will have you pick one empirical article (an article with an experiment in it) to base your project on. You will answer a series of

questions related to your article aimed at helping you develop your experiment. Importantly, you will not replicate this experiment, but rather expand on or ask a new question based on it. Then, you will complete a **final project worksheet** where you will iron out the details of your project in class, getting approval on your project plans before leaving class that day. You will then need to **submit any materials** needed in class for your experiment. These materials may include images, videos, sound, words, sentences, etc. Before you can start building your experiment, you must submit these materials. Then, in class, you will work on building your experiments in PowerPoint or Qualtrics (or some other program of your choice). I will be available both of those days to help you during class time. Once your experiment is built, you must **submit your materials again**, this time including your experimental program, directions for the experiment assistant (me), a description of what your participants (your classmates) will do, estimated time the experiment will take, etc. You will **participate in all your classmates'** experiments in class, earning 10 points for each day you participate. If you fail to come to class and participate in your classmates' experiments, we may be unable to run your experiment in class, resulting in no data for you which will greatly hinder your final presentation. You will have access to some helpful materials on Canvas on how to prep and analyze your data. Using those materials, you will fill out a **data prep/analysis worksheet** where you will identify how you need to set up your data and what test to run. You should be well prepared for this worksheet from every lab report during the course. Your **final presentation** is worth 70 points and will be evaluated both on its content and delivery. Rubrics for the final presentation will be posted on Canvas.

In-Class Activities will take place in class on unannounced days, each worth 10 points. You may have more than 10 in-class activities, resulting in some "freebie" days. These activities may include mini-group discussions, writing hypotheses, identifying theories, finding articles, hypothetically designing experiments, identifying independent and dependent variables, extra statistical analyses, big class discussions, reflections on what we learned, creating research questions, etc. These will be graded on effort (not on whether you did it or not). These are also (obviously) in class, so you run the risk of losing points should you miss class without letting the instructor know!

Extra Credit

If you come to my office hours within the first 3 weeks of the semester, you'll get 10 points of extra credit (this is a one-time opportunity but you can definitely come more than once). There will be various opportunities for extra credit throughout the semester. So, any requests for outside extra credit will (likely) not be granted.

Grade Issues

Re-grading

If you believe there may be an error in totaling up points or answers were overlooked, please notify me immediately. It is both your and my responsibility to ensure that grades are entered correctly on Canvas and that errors are corrected as soon as possible.

If you believe you earned additional points that were not awarded, I will happily discuss your work. Please note, however, that I will review the entire assignment and that there is a possibility your overall score on the work may go down, as well as go up.

Exceptional circumstances

Changes to grades or requirements or granting of incompletes for the course due to exceptional circumstances, are entirely at the discretion of the instructor.

Unexpectedly poor performance

If you are not achieving the grades you expect from your effort in this, please meet with me as soon as you can. I would be happy to discuss your concerns together.

Late Policy

Assignments turned in late will be deducted 10% for each day they are late (e.g., a 10-point assignment will lose 1 point for each day it is late). **After 3 days**, any assignment which has not been submitted will receive a zero.

If the assignment is due at 5:00 pm and you turn it in at 5:01 pm, *it is late*. Please manage your time properly, but if something comes up, please reach out to your instructor.

Participation Expectations

It is critical that you attend all class sessions. Missing out on participating in a weekly experiment will significantly set you back for that week's assignment. Most of your final grade is based on activities we do in class, so do not miss class!

If you miss a class for an unexpected reason (such as illness or family emergency) please contact me as soon as possible. I reserve the right to ask for documentation to show that it was a legitimate absence (e.g., university sanctioned event, religious holiday, documented medical problem, or other documented problems) prior to arranging a make-up assignment or other accommodation.

If you miss a Final Project data collection day without prior notice of reasonable excuse, you likely will not be able to complete your project, thus receiving a zero.

If you miss a Final Project presentation day without a reasonable excuse, you might not be able to give your presentation (thus receiving a zero).

Excused Absence/Make-Up Policy

In the case that assignments are missed for some unforeseen reason (e.g. health issues, family crises, etc.), and you require more than a 24 hour extension, you must coordinate with [Student Case Management](#) to provide the instructor with documentation if you wish to receive credit for missed days/assignments. They verify documentation for instructors and have their own specific requirements for what constitutes "valid documentation", so please read their policies before contacting them.

The make-up policy for assignments will allow for up to a 1-week delay in the due date for an assignment, provided proper evidence and documentation are provided to justify an extension. This timeframe may be adjusted at the instructor's discretion.

Schedule Changes

Throughout the semester we may encounter days where the university is closed (e.g., snow days) or your instructor may be ill. If the university is fully closed and no classes are to be held, we will adjust the

schedule as needed (e.g., truncate a day, shift things around, etc.) and you will be notified of any changes. If I am sick or unable to come in, I will do everything I can to give as much notice as possible and inform you of the plan. If I am able to find someone to cover the class, I will adjust the schedule accordingly. As a note, I understand that things happen and come up at the last minute and just ask that you communicate honestly with me about what's going on. I will be as understanding and flexible (within reason) as I can be.

Academic Integrity Policy

This course will adhere to CSU's [Academic Integrity/Misconduct](#) policy as found in the General Catalog and the [Student Conduct Code](#).

Academic integrity is conceptualized as doing and taking credit for one's own work. Violations of the university's academic integrity standards include, but are not limited to:

- Cheating – includes using unauthorized sources of information (e.g., “study aid” websites) and providing or receiving unauthorized assistance on any form of academic work or engaging in any behavior specifically prohibited by the faculty member.
- Plagiarism – includes the copying of language, structure, ideas, or thoughts of another, and representing them as one's own without proper acknowledgment.
- Unauthorized Possession or Disposition of Academic Materials – includes the unauthorized selling or purchasing of examinations or other academic work; stealing or using another individual's work; unauthorized entry to or use of material in a computer file; and using information from or possessing exams/assignments that an instructor did not authorize for release to students.
- Falsification – includes any untruth, either verbal or written, in one's academic work
- Facilitation – includes knowingly assisting another to commit an act of academic misconduct.

Academic dishonesty will not be tolerated in this class and will be prosecuted to the fullest extent possible, up to and including failure for the course and additional university sanctions. All work submitted for this course must be **entirely your own, new, and original**.

Many of the academic dishonesty issues we have encountered in the course are related to plagiarism. Plagiarism is when you use someone else's ideas without acknowledging the source.

For this course, you should NEVER directly quote, word for word, anyone's writing. You will lose points on assignments for doing this. You must explain things in your own words, to demonstrate your grasp of the concept, and then offer the relevant citation to the original source of the ideas. Note: paraphrasing in this fashion *does not just involve changing a few words here and there*. Ultimately you are responsible for knowing what is, and is not, plagiarism. A claim of ignorance will not be an acceptable excuse. If you are unclear as to what constitutes plagiarism, please discuss your concerns with the instructor before submitting the relevant assignment.

Please note that your instructor will actively look for evidence of people turning in work that is not entirely their own. All cases of academic dishonesty will receive some penalty and will be reported to The Office of Conflict Resolution and Student Conduct Services, as per university regulations. See the University Academic Guide for more information on academic dishonesty.

Artificial Intelligence (AI) Usage

Generative AI (e.g., ChatGPT) is not permitted for working on course assignments. There are several important reasons for this policy. First, copying AI-generated text into the work you submit for the course would amount to presenting others' words as your own, which is considered plagiarism. Second, AI engines are notoriously unreliable on facts—anything they assert must be checked against reliable sources. Third, AI engines reproduce biases and prejudices from their source material—it is incumbent on us to check and correct for bias. Finally, employing AI eliminates the chance to use and demonstrate our own thinking on a topic. Indeed, the goal of this class is not to generate text artifacts with AI but to develop your ability to think critically about cognitive psychology. As part of developing those skills, the work you submit should reflect your own thinking and writing, not products generated by AI.

CSU Honor Pledge

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, your participation in this course implicitly affirms that this statement is true for every assignment you submit:

"I have not given, received, or used any unauthorized assistance."

Universal Design for Learning

Your instructor is committed to the principle of universal learning. This means that the classroom, the virtual spaces, the practices, and the interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

Students with Accommodations

I am committed to the principle of universal learning. Our classroom, virtual spaces, practices, and interactions should be as *inclusive* as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning. If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from The Student Disability Center may be required before any accommodation is provided. You may get in touch with the Student Disability Center at (970) 491-6385 or visit their website at <https://disabilitycenter.colostate.edu/> at **any** point during the semester.

Diversity and Inclusion

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. Indeed, we all bring unique experiences to this class, and it is those experiences which contribute to the richness of our course. In addition, if any of our class meetings conflict with your religious events, please let me know so that I can make arrangements for you.

Copyrighted Course Materials

Please do not share material from this course in online, print, or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in the course are also subject to copyright protections. Posting course materials on external sites (commercial or not) violates both copyright law and the CSU Student Conduct Code. Students who share course content without the instructor's express permission, including with online sites that post materials to sell to other students, could face appropriate disciplinary or legal action.

Other Content

For information on other policies related to topics such as undocumented student support, food insecurity, Title IX, Religious observances, Diversity and inclusion, plus others, [follow this link](#).

Caveat

The instructor reserves the right to alter the class schedule and adjust any other aspects of the syllabus to meet the pedagogical needs of the class.

PSY 453 - Cognitive Psychology Lab Spring 2025 (Haley's sections) Schedule

| Week | Date | Topic | Assignments (due 11:59 PM) |
|-------------|-------------|---|--|
| 1 | 1/21 | Introduction to course | Sunday 1/26: Research article worksheet |
| | 1/23 | Research Methods, Experimental Design, & Statistics Review | |
| 2 | 1/28 | Object Recognition | Sunday 2/2: Object Recognition Lab report |
| | 1/30 | Object Recognition Data Analysis and Discussion | |
| 3 | 2/4 | Attention – divided attention | Sunday 2/9: Divided attention lab report |
| | 2/6 | Divided Attention Data Analysis and Discussion | |
| 4 | 2/11 | Attention – attentional control | Sunday 2/16: Attentional control lab report |
| | 2/13 | Attentional Control Data Analysis and Discussion | |
| 5 | 2/18 | Memory – Encoding and retrieval | Sunday 2/23: Encoding and Retrieval lab report EC: mid-part-1 survey |
| | 2/20 | Encoding and Retrieval Data Analysis and Discussion | |
| 6 | 2/25 | Memory – Reconstructive Memory | Sunday 3/1 Reconstructive Memory Lab report |
| | 2/27 | Reconstructive Memory Data Analysis and Discussion | |
| 7 | 3/4 | Metacognition – Metacognitive monitoring Lecture, experiment, and data | Thursday 3/6: Metacognitive Illusions lab report |
| | 3/6 | Metacognition – Metacognitive control Lecture, experiment, and data | Sunday 3/9: Metacognitive control lab report |
| 8 | 3/11 | Decision making – theories Lecture, experiment, and data | Thursday 3/13: Decision making theories lab report |
| | 3/13 | Decision making – biases & heuristics Lecture, experiment, and data | Sunday 3/16: Biases lab report |
| | 3/18 | SPRING BREAK!! No class | |
| | 3/20 | | |

| | | | |
|----|------|---|---|
| 9 | 3/25 | Problem solving – creativity Lecture, experiment, and data | Thursday 3/27: Creativity lab report |
| | 3/27 | Problem solving – critical thinking Lecture, experiment, and data | Sunday 3/30: Critical thinking lab report |
| 10 | 4/1 | Conducting background literature searches | Wednesday 4/2: Submit background literature worksheet |
| | 4/3 | Generating a research idea | Friday 4/4: Submit springboard article worksheet |
| 11 | 4/8 | Designing an experiment | Wednesday 4/9: Submit final project worksheet |
| | 4/10 | Generating materials | Friday 4/11: Submit preliminary materials for approval |
| 12 | 4/15 | In-class experiment programming day | Friday 4/18: Submit FINAL experiment materials |
| | 4/17 | In-class experiment programming day | |
| 13 | 4/22 | Data collection in class | <i>IN-CLASS POINTS TUES/THURS FOR PARTICIPATING IN EACH OTHER'S EXPERIMENTS</i> |
| | 4/24 | Data collection in class | |
| 14 | 4/29 | Data entry/cleaning/analysis | Sunday 5/4: Submit final presentation! |
| | 5/1 | Data analysis/Presentation prep/Create a presentation schedule together | |
| 15 | 5/6 | Final Project Presentations in class | |
| | 5/8 | Final Project Presentations in class | |
| 16 | 5/13 | Finals Week – NO CLASS :) | |
| | 5/15 | | |

*****I reserve the right to change the order and content of class topics to meet the needs of the class*****