

Psychology 353: Laboratory in Cognition and Memory

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Office Hours: Tuesday, 11:30-12:30 (Central Time). Other times by appointment. Office hours will be held virtually using Zoom.
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Class Meeting Time: Tuesday and Thursday, 9:30-11:20 (Central Time).
Class will be held online via Zoom.

Texts and Materials: REQUIRED

1. Required readings will be posted on BlackBoard as needed.
2. Jamovi statistical software. This software is free for both PCs and MACs and is available for download at <https://www.jamovi.org/download.html>.
3. Word processing, spreadsheet, and presentation software. (e.g., Microsoft Word, Excel, and PowerPoint). Note that these are available free to all UIC students through ACCC.

OPTIONAL, BUT HIGHLY RECOMMENDED:

A. Publication Manual of the American Psychological Association, Seventh Edition (ISBN: 978-1-4338-3216-1).

-OR-

B. Concise Guide to APA Style, Seventh Edition (ISBN: 978-1-4338-3273-4).

-OR-

C. Alternatively, you can learn about APA style using online resources. I recommend the Purdue OWL (Online Writing Lab) site:

[\(https://owl.english.purdue.edu/owl/resource/560/7/\)](https://owl.english.purdue.edu/owl/resource/560/7/).

Welcome to PSCH 353! Laboratory in Cognition and Memory is one of my favorite classes to teach, and I hope it will be one of your favorite classes too. One reason I like this class is the enrollment is only 20. The small class size allows me to directly work with each of you and to get to know you well. Another reason I like this class is that I get to watch you pull together all the skills you have acquired (e.g., knowledge of psychological theory, research methods, statistics) and use them to conduct your own research. During the second half of the semester you will design and conduct your own experiment. I am always amazed at the quality of the research that students produce in this class—I hope you will be too. I view my role in this course as a mentor and instructor. If you have any problems or concerns throughout the class, I'm here to help! Remember that you are paying me to help you, so I encourage you to make

use of my office hours or make an appointment to meet with me outside of office hours (email is the best way to contact me).

Prerequisites: To enroll in this course you **MUST** have taken PSCH 242 (Introduction to Research) and PSCH 343 (Statistics). You also must have taken or be concurrently enrolled in PSCH 352 (Cognitive Psychology).

Registration: This is a 3-credit course. You must register for both the lecture section and the lab section.

Course Description: The goal of this course is to introduce you to research methods in cognitive psychology. You will complete several experiments, both as a participant and as an experimenter. We will initially perform experiments together as a group. Later you will run your own experiment, which you will write up in a formal report and present at a class mini-convention. Each experiment we perform will involve some or all of the following parts: (1) Introduction to the topic; (2) Description of hypotheses, research design, and methodology; (3) Collection and analysis of data; (4) Discussion and interpretation of results; (5) Presentation of results; and (6) Conclusions.

As you know, this is online course. Even though I will not get to see you in person, my goal is to make this course as interactive as when I teach face-to-face in a classroom. I want (and expect) you to ask questions, make comments, and participate in small group discussions. We will work through the course together—I will not simply post lectures and assignments on Blackboard for you to watch and complete on your own. This course is taught synchronously, which essentially means “live.” We have set meeting times that you need to attend, just like a face-to-face class. Because you signed up for an online course, I assume you have access to a computer with a webcam, microphone, and reliable internet that you can use every day. Class will meet using Zoom. Many of you have used Zoom in other classes. For those of you who have not, Zoom is a lot like Blackboard Collaborate or Google Hangouts. A link for each class period will be put in the “Zoom” content folder.

IMPORTANT: Because I want to interact with each of you, I will require you to attend class with your webcam turned on so that I can “see” you when I ask you questions as well as when you ask me questions. The reason for this requirement is that I want to make the course as interactive as when I teach face-to-face in a traditional classroom. We will work through the course together—I will not simply post lectures and assignments on Blackboard for you to watch and complete on your own. I want (and expect) you to ask me questions, make comments, and participate in small group discussions. You must have a webcam and microphone to do this. Attending class with your webcam turned on allows me to see your reactions to what I say in class, which makes it easier for me to know if you understand what we are discussing. Many students have told me that attending with your webcam turned on makes the class better for you and for me. **If you do not want to attend class with your webcam turned on, then this is not the class for you—you should drop this course and find another class that better meets your needs and expectations.**

Now that I have stated the webcam requirement, let me say that I realize that we all experience technical difficulties beyond our control. For example, maybe the power goes out at your home and you can't access the internet with your computer. In this case I am fine with you attending via your phone on that day. I have had the power go out at my house while I

teaching a class and I had to teach using my phone's camera. If this can happen to me, it can happen to you. I can pretty much guarantee we will experience some technical problems, but we will work through them together. If encounter ongoing computer or internet problems, you can request to borrow a laptop or cellular hotspot from UIC. Here is the link to the request form (<https://accu.uic.edu/forms/laptop-request/>).

ASSIGNMENTS

1. Small homework assignments (e.g., answer questions about experiments, analyze data).
NOTE: Late homework assignments will be penalized 25%. Homework will not be accepted more than 2 days late. Late assignments that were due on Tuesday must be submitted by class time on Thursday and late assignments due on Thursday must be submitted by 9:30 AM on Saturday to receive any credit.
2. Mid-term quiz.
The purpose of the quiz is to confirm you are familiar with basic experimental terms and design. The content will be based on the small assignments and class lectures.
3. Written Report #1 (First draft and Final version)
Report #1 will be a full report of the second experiment we do in class. Full reports include a title page, abstract, introduction, methods, results, discussion, references, table, and figure. You will submit a first version and a final version. You will be given feedback on the first draft and then you will revise the draft to produce the final version.
NOTE: Late reports will be penalized 5% or 2% per day late (including weekend days), whichever is greater. For example, if you submit your paper 1 or 2 days late, you will be penalized 5%. If you submit your paper 3 days late, you will be penalized 6%. Written reports will not be accepted for credit more than 5 days late except under exceptional circumstances with instructor preapproval. Late papers will be graded so that you receive feedback.
4. In-class review of Report 1.
Before you submit Report 1, we will spend one day in class answering any remaining questions you have about the report and reviewing what you have written. You need to bring a complete draft to class. The drafts will be graded as follows: 10 points for bringing a complete draft to class (i.e., all sections of the report), 5 points for bringing a partial draft to class (i.e., one or more sections of the report are missing or incomplete), 0 points for not bringing a draft to class or bringing a draft that shows very little was completed (e.g., only one section other than the results were completed).
5. Final Project Report
During the last part of the semester you will design and conduct your own experiment (the final project), and then you will write a full report describing the project. Because the final report reflects a group project, the methods and results section will be written as a group. Importantly, each group member will write the other sections of the report on their own. There are several steps involved in completing the final project with each step having a due date. These steps will be provided in the project guidelines.
NOTE: Final reports will be penalized 5% or 2% per day late (including weekend days), whichever is greater. Final reports cannot be accepted more than five days late so that we have time to grade your report before class grades are due.

6. Final Project Oral Presentations

These are written summaries in PowerPoint form of your final projects that simulate making a spoken presentation at a professional conference. Because these are group presentations that are presented on a single day, they cannot be completed late.

7. In-class review of Oral Presentations.

Before you make your presentation, we will spend one day in class answering any remaining questions you have about the presentations and reviewing what you have produced. You need to bring a complete draft to class. The drafts will be graded as follows: 10 points for bringing a complete draft to class (i.e., all sections of the presentation), 5 points for bringing a partial draft to class (i.e., one or more sections of the presentation are missing or incomplete), 0 points for not bringing a draft to class or bringing a draft that shows very little was completed (e.g., only one section was fully completed).

8. Final Project Group Evaluation

Your contribution to the final project will be evaluated to ensure that each member of the group makes an appropriate contribution. In addition to our evaluation, you will submit an evaluation of your own and your teammates' roles in completing the final project.

9. Class Participation

Class participation includes more than simply attending class—you must be prepared to participate discussions. To do this, you will need to complete assigned readings and other activities on time. You also need to participate with your webcam turned on so that we can directly talk with each other. You will not be given participation points for just logging into class and you will not be given participation points if you do not turn on your web cam during class discussions.

Assignment Due Dates: Unless a specific time of day is provided in the Course Schedule, all assignments must be submitted by the start of class on the due date listed in the Course Schedule. Most assignments will be submitted via BlackBoard. When submitting assignments, include your name in the file name and in the document itself. Make the file name obvious, such as "GARY RANEY ASSIGNMENT 1" (replace GARY RANEY with your name).

Grading: Grades will be based on the assignments specified above. There will be no final examination; the final project serves this purpose. Note that the components of the final project will be worth roughly half of the total available points. A traditional points breakdown will be used to determine your grade (90+% = A, 80-89% = B, 70-79% = C, 60-69% = D, less than 60% = F).

Approximate Points Breakdown:

Assignment	Points	Approximate %
11 Homework assignments (15-20 points each)	181	18
Mid-term quiz	40	4
In-class review of Report 1	10	1
Version 1 of Written report #1	100	10
Final version of written report #1	150	15
Final project report	350	36
In-class review of oral presentations	10	1
Final project oral presentations	40	4
Final project group evaluation	20	2
Class participation (3 points per day for 28 of our 30 meetings)	84	9
TOTAL	985	

Improvement Bonus.

If your grade on the Final Project Report is better than your grade on the final version of Written Report #1 by up to 4%, I will add 4% to your grade on the Final Project Report. If your grade on the Final Project Report is better than your grade on the final version of Written Report #1 by 4% or more, I will add 6% to your grade on the Final Project Report. If your grade on the Final Project Report is not better than your grade on the final version of Written Report #1, you will not receive an improvement bonus.

OTHER IMPORTANT INFORMATION**1. Participation in class is important and counts substantially towards your grade.**

This includes participating in discussions, preparing for class, and logging in on time. If you spend time texting, emailing, or similar activities while you are in class, you will not earn your participation points for that day. Students who miss a class are responsible for obtaining all notes, announcements, and handouts. There are 30 class meetings in a semester, but only 28 class meetings are counted in the total number of points available. This allows you to miss 2 days without penalty. If you attend all 30 meetings, you will earn 6 bonus points!

2. Late assignments and make-ups

Late assignments will be penalized by the amounts specified in the Assignments section unless you have a valid reason for not submitting an assignment on time. I realize that sometimes problems occur that make completing an assignment difficult. **Therefore, if necessary, you may submit one of the three versions of the written reports (draft or final version of report 1, or final project report) up to one day (24 hours) late with no questions asked and no penalty.** Experiments that we perform in class cannot be made up for credit. If you know you will miss class, please arrange to complete any assignments early so that you will not be penalized. Losing an assignment due to computer failure is not a valid reason for submitting an assignment late. Make frequent backups of your work on external storage so that you never lose all your work.

3. Religious Holidays

If the class meeting time conflicts with major religious holidays that will require your absence, please notify the instructor or the teaching assistant by the tenth day of the semester of the date you will be absent unless the religious holiday is observed on or before the tenth day of the semester. In such cases, notify us as soon as possible prior to your absence. We will make every reasonable effort to honor your request, we will not penalize you for missing the class, and if an assignment is due during your absence, we will arrange a reasonable substitute assignment and/or change the due date. Additional information about UIC's religious holiday policies are available online at <https://oae.uic.edu/religious-calendar/>.

4. Academic Integrity Policy

No form of academic dishonesty will be tolerated. Students who break the university's code of academic integrity could be given a failing grade for the assignment or course and be the subject of formal judicial charges (see UIC Student Disciplinary Handbook for details). For example, if any amount of plagiarism is discovered in a written assignment, you could be given a grade of 0 (zero) for the assignment and possibly a failing grade for the course. I will also notify the Office of the Dean of Student Affairs and file an academic dishonesty charge that will be added to your academic file. You will work in groups on some parts of your assignments, but you must write the final version of all assignments on your own and in your own words. Copying from your group partners is plagiarism. Information about the Student Disciplinary Policy is available at the UIC Office of the Dean of Students website at <https://dos.uic.edu/community-standards/>.

5. Disability Accommodation

UIC is committed to full inclusion and participation of people with disabilities in all aspects of university life. Students who face or anticipate disability-related barriers while at UIC should connect with the Disability Resource Center (DRC) at drc@uic.edu, or at (312) 413-2183 (voice) or (312) 413-0123 (TDD) to create a plan for reasonable accommodations. The DRC website is <http://drc.uic.edu>. In order to receive accommodations, you must disclose your disability to the DRC, complete an interactive registration process with the DRC, and provide me a Letter of Accommodation (LOA). After I receive an LOA I will work with you and the DRC to implement approved accommodations.

6. Online Course Communication Guidelines (Netiquette) Netiquette is a set of rules for behaving properly online. Here are some guidelines for online communication in this course:

- Login to class a few minutes early so that you are ready to begin when class starts.
- Adhere to the same standards of behavior when communicating with others online as you do in the classroom.
- Be respectful of others' views and opinions. This includes being sensitive to different cultural and linguistic backgrounds, as well as different political and religious beliefs. I will not tolerate personal attacks on others.
- Use good taste when composing your responses. Swearing and profanity should be avoided. Also consider that slang and sarcasm can be misinterpreted.
- Be forgiving of others' typos and mistakes.
- In emails, it is a good practice to put your course in the subject line (PSCH 353). This helps me identify course-related emails.

COURSE SCHEDULE

Assignments, readings, and videos are available on Blackboard.

Assignments in **RED** must be completed by class time on the date listed.

Date		Topic
Jan	12	Introduction to class. What is research? What is an experiment? Install Jamovi software (we will do this together in class).
	14	Review Experimental Terms. Introduce and perform Find-a-Cat experiment in class. Read Linton & Gallo chapters 2 and 3. Watch methodology video tutorials 1 and 2 (watch #3 if you want an additional example). Assignment 1 due: Experimental terms questionnaire.
	19	Data tabulation using Excel. Analysis and summary of results for Find-a-Cat experiment. Assignment 2 due: Questions for Linton & Gallo Chapter 3. Read Nakashima et al. (2013)
	21	Further discussion of Find-a-Cat experiment.
	26	Perform Problem Solving experiment in class. Background on Problem Solving experiment. Data tabulation using Excel. Assignment 3 due: Questions for Find-a-Cat experiment.
	28	Begin analysis of Problem Solving data. Read Cushen & Wiley (2011) Read Arreola & Raney (2014) poster Read Chu & Macgregor (2011) pages 119-125 Read Dow & Mayer (2004) Read Weissberg (2018) pages 200-204
Feb	2	Additional analysis of Problem Solving data. How do you find outliers in your data? Data sorting and tables using Excel. Assignment 4 due: Questions for Problem Solving experiment. Watch Jamovi video tutorial. Watch Excel video tutorials 1 and 2, and 3 (watch others at your convenience).
	4	Interpreting interactions. Assignment 5 due: Analyze Problem Solving data.
	9	Write partial methods and results sections for Problem Solving experiment. Additional information about working with Excel. Assignment 6 due: Interaction Spreadsheet.
	11	Discuss APA style and writing experimental reports. Review outline for Report #1 (Problem Solving). Read APA manual chapter 2. Read OWL summary sections on References, and Tables and Figures. https://owl.english.purdue.edu/owl/resource/560/01/ Assignment 7 due: APA Style.
	16	Review Problem Solving results. Mid-term Quiz (in class).

	18	Individual help with Report #1. Bring complete draft of Report #1 to class.
	23	Introduce Resource Depletion experiment. Begin data tabulation and analysis. Report #1 Rough Draft Due.
	25	Data analysis and discussion of Resource Depletion experiment.
Mar	2	Working with Excel and Qualtrics data. Assignment 8 due: Questions for Resource Depletion experiment. Watch Excel video tutorials 3, 4, and 5.
	4	Assign Final Project groups and discuss project requirements. Review Qualtrics and other methods for designing experiments. Discuss ideas for final project. Assignment 9 due: Excel data file task. Watch Qualtrics video tutorials 1 and 2 (watch others at your convenience).
	9	Work on final project. Graded drafts of Report #1 returned.
	11	Finalize design of final project. Assignment 10 due: Create simple Qualtrics project.
	16	Work on final projects. Assignment 11 due: Description of final project.
	18	Report #1 Final Draft Due. Work on final projects.
	23	SPRING BREAK: NO CLASS
	25	SPRING BREAK: NO CLASS
	30	Test run final projects. Begin setting up data for analyses.
Apr	1	Work on final projects. Set up data for analyses.
	6	Work on final projects. Set up data for analyses. Graded final version of Report #1 returned.
	8	Finish work on final projects.
	13	Analyze data.
	15	Analyze data. Begin writing results section.
	20	Finalize analyses. Finish writing results section.
	22	Begin working on final project presentations.
	27	Work on final project presentations.
	29	In-class review of final project presentations. Final project reports due Friday, April 30 by 12:00 pm (noon).
Finals Week		Final project presentations will be made during our final exam period (Time TBA).