

Psychology 353: Laboratory in Cognition and Memory

Fall 2020: CRN 26629 (and CRN 28566)

MW 3-4:50

Classroom: THIS COURSE WILL MEET ONLINE DURING FALL 2020

Course Information: 3 hours. Prerequisite(s): PSCH 343, and credit or concurrent registration in PSCH 352. To be properly registered, students must enroll in both Lecture/Discussion and Laboratory parts of the course. Only registered students may attend.

Completion of PSCH 352 is expected so that you have the necessary background knowledge for the laboratory course. If you are currently taking PSCH 352, you will need to read chapters from your textbook **before** reading the assigned journal articles. Use the index to find the chapter in your textbook that provides you with background on the topic (e.g. memory, language, comprehension, problem solving, reasoning or decision making) once articles are announced.

Registration Restriction: Restricted to Neuroscience or Psychology major(s)

Instructor: Jennifer Wiley <https://jwiley.people.uic.edu/>

Email: jwiley@uic.edu

Office Hours: Mon/Wed 3-5 or by appointment

TA: Tricia Guerrero

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Office Hours: Mon/Wed 3-5 or by appointment

Link to [Policies and Resources](#) (in case Blackboard is down)

Link to [COVID Policies](#)

Purpose of Course

This course serves as a "WID" (Writing in the Discipline) course, and as such requires extensive writing in the form of experimental APA-style reports. Students will engage in experimental research in cognition to provide the content for these reports.

For the first part of the course, students will gain experience with APA style and writing individual sections of the APA style research reports. They will participate in experiments on cognitive topics including memory, language, comprehension, problem solving, reasoning or decision making. For each experiment, students will act as participants and then take the role of researchers. They will get the chance to analyze and interpret data, and practice writing experimental reports in correct APA style and format. Students will develop an understanding of each experiment using their background from 352, reading original research articles, making predictions based on theory, and examining how those predictions relate to actual results.

During the second part of the course, students will work on a project that will be reported in a full APA style manuscript. Students will also create a virtual presentation to share their results in an end-of-semester "poster fair".

This class is designed to be of interest to students who are considering graduate school in experimental psychology, but it will be useful to any student who enjoys the topics of human cognition including learning, memory, and problem solving, and wants to better understand the nature of experimental research. More generally, a background in cognitive research methods is valuable experience for students who are considering a wide range of careers in areas including business, computer science, education, health, law, medicine, and neuroscience.

This course requires students to keep up with assignments. Especially this semester, students need to be highly self-motivated.

Be prepared for this class to move quickly! Students will need to be knowledgeable of all of the material introduced in the fast-paced first half of the course to successfully complete their final papers and projects.

Readings:

Readings consist of original journal articles and sections of the APA manual. The journal articles will be made available to you after you participate in each study. Reading assignments for relevant portions of the APA Manual will be posted in Blackboard. Students who are concurrently registered in 352 will need to read relevant sections of the 352 textbook.

Grading

Grades will be determined by the following allocation of 100 points:

55% Participation in experiments and activities

25% Written Assignments

20% Final Project/Full APA Style Paper

This is a fast-paced laboratory course consisting primarily of reading assignments, online homework activities, and writing assignments. In many cases there will be a flexible window for completing the online activities (viewing short videos, engaging in comprehension checks, doing worksheets), so you can complete the activities asynchronously at any time **before the deadlines**. A few full-class discussions will be online and synchronous during scheduled course time. These are tentatively marked as **LIVE** on the schedule. To earn credit and receive feedback on writing assignments, papers must be submitted on time.

Students will not be able to earn credit for missed activities due to late registration. Students joining the course after the first week of class must have instructor permission, and will have already missed the opportunity to earn points for those activities.

The University recognizes a student's responsibility for attending classes as constant. This semester, this means staying on track even when the activities are asynchronous for the week.

In case of issues and emergencies that prevent you from participating or making progress, contact the instructor as soon as possible.

Course schedule

Students will be contacted by email to provide a little information about themselves before the course.

These will help us get to know you and plan appropriately.

Aug 24 **LIVE** Introductions/Welcome, Review of Syllabus, Overview of Class
*NOTECARDS BY EMAIL

Discussion of Five Key Questions:

1. What is the main theoretical question about cognition that is being tested in this study?
2. What defines the conditions THAT ARE COMPARED/CONTRASTED in analyses? (IV) (operational definition)
3. What performance or behavior or outcome was measured? (DV) (operational definition)
4. What happened (how did the IV affect the DV)?
5. What do these results mean? Was support found for the hypothesis? Were results consistent with the theory?

Phase I - Basics of APA style, Title Pages, Abstracts

Aug 26 Participate in Experiment 1 (**Check your email for the answer sheet and LINK**)

Reading Assignment 1: LINK to article is included in last screen of study (also posted in Blackboard in the Experiment 1 Folder after all students complete the study)

Aug 31 **LIVE**
Quiz on Reading Assignment 1 (Do ONLINE at 3pm)
How to read a journal article: Dr Wiley will model how to read this article (will start at 3:20 after quiz)
Comprehension check

Sep 2 **LIVE**
Making Predictions and Analyzing data with Tricia

Sep 7 Labor Day (no class)
APA Style Readings (Basics of Manuscript Format, Headings, What is Title Case?)
Complete APA Style Notetaker

Sep 9 **LIVE**
Overview of APA Style
Basic Elements of APA Style for the Title Page and Abstract

Writing Assignment 1 Due Sep 14 BEFORE CLASS: Title Page and Abstract describing the STUDY WE DID IN CLASS

[Grading Checklist for Writing Assignment 1](#)

Sep 14 Writing Assignment 1 (Title Page and Abstract describing the STUDY WE DID IN CLASS)

Due (through Blackboard BEFORE CLASS)
APA Style Activity (Posted at 3pm)

Sep 16 Participate in Experiment 2 (**This experiment is now available, fully online study, see email or LINK posted on Blackboard**)

Reading Assignment 2: LINK will be sent when you finish participating in Experiment 2

Phase II - Methods and References

Sep 21 **LIVE**

Quiz on Reading Assignment 2
Discussion of Experiment 2 with Focus on Methods and Coding
Basic elements of APA Style for Method sections
DATA CODING ASSIGNMENT Due SUN Sep 27: Code data following the practices used in the original article

Sep 23 Data Coding Activity: Use the step-by-step instructions posted on Blackboard (Experiment 2 Folder) to code the Experiment 2 Recall data

Review of Common Errors on Title Pages and Abstracts

Sep 28 **LIVE -- IN PAIRS**

Interrater Reliability Assignment
Compute Interrater Reliability
Create Coding Rubrics

Sep 30 Basic elements of APA Style for Paper 2
APA Style Methods, Citations, References Activity

Writing Assignment 2: Due Oct 7 BEFORE CLASS -- Title Page, Abstract, Method (with Coding subsection and IRR), References

Start writing report on the second study WE DID in class

[Grading Checklist for Writing Assignment 2](#)

Oct 5 Analyze Experiment 2 results (Do analyses on your own)
Extra directions will be added to worksheet on how to compute t statistics for chromebook excel users

LIVE check-in at 4pm

Share findings, final coding rubrics

Phase III - Results, Tables and Figures

Oct 7 Writing Assignment 2 Due (through Blackboard BEFORE CLASS)

Data Coding Activity: Instructions posted on Blackboard (Experiment 2 Folder).
Code Experiment 2 Episode Order and Intrusions

- Oct 12 **LIVE**
Basic elements of APA Style for Results sections
Overview of APA Style for Tables, Figures, Appendices
Outlier Discussion
- Oct 14 Individual Checkup Meetings on Data Files
- Oct 19 Experiment 2 Analyses (Part 2) Additional data check-up meetings if needed.
After all clear on data check-up: Analyze final Experiment 2 results (update
CONDITION, remove outliers, recompute descriptives, statistical tests)
Compute Chi Square for Episode Order and Effect Sizes with [Worksheet](#)
- Writing Assignment 3 due Oct 28 BEFORE CLASS: Title Page, Abstract,
Results, (References), Table (Frequency/Order data), Figure (sentence recall and intrusion data)
[Grading checklist for Writing Assignment 3](#)
Start writing your paper now!
- Oct 21 APA style for Tables
- Oct 26 **LIVE at 3pm**
APA style for Figures & Graphs
- Oct 28 Writing Assignment 3 due BEFORE CLASS: Title Page, Abstract, Results,
(References), Table (frequency data/order), Figure (sentence recall and intrusion data)
[Grading checklist for Writing Assignment 3](#)
Setting up UIC Library Access/Find first reference/Submit for approval
- Phase IV - Introductions and Discussions**
- Nov 2 **LIVE at 3pm**
How to write a proposal/introduction
Finding and summarizing relevant articles (summary of first article due by
END of class Monday)
- Nov 4 Finding and summarizing relevant articles (summary of second article due
BEFORE class, third article due by END of class)
- CLASS Writing Assignment 4 Due Nov 9: Introduction for the STUDY WE DID IN
[Grading Checklist for Writing Assignment 4](#)
- Nov 9 Draft of Introduction section, due by END of class

Nov 11 **LIVE at 3pm**
How to write a discussion section

Writing Assignment 5 Due Nov 16: Discussion of the results for the STUDY WE
DID IN CLASS

[Grading Checklist for Writing Assignment 5](#)

Nov 16 Draft of discussion section, due by END of class

Nov 18 **LIVE at 3pm**
Discussion about APA Style for Full APA Style Papers (Discussion of major
issues in Methods and Results drafts)

[APA Style Checklist](#) for updating final papers

Phase V - Presentations

Nov 23 **LIVE at 3pm**
Pointers on Introductions and Discussions
Individual Meetings/Feedback

Nov 25 Individual Meetings/Feedback

Nov 30 How to present your project

Dec 2 Individual presentations to Dr. Wiley and Tricia over Zoom

FINALS WEEK Submit final papers through Blackboard