

## PSY 379F Human Memory & Learning Lab Fall 2022

**Instructor** Dr. Meg Schlichting (she/her)  
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**Content questions?** Ask during class, on Quercus, or make an appointment:  
[calendly.com/schlichting/10-minute-meeting-office-hours](https://calendly.com/schlichting/10-minute-meeting-office-hours)

**TA** Merron Woodbury (they/them)  
Email\*: [merron.woodbury@mail.utoronto.ca](mailto:merron.woodbury@mail.utoronto.ca)  
Make an appointment (beginning wk 6) [link forthcoming]

**Class** Thursdays 1-4pm in Sidney Smith (SS) 560

*\* Email is ONLY to be used for genuine emergencies. Neither the instructor nor the TA will be able to respond to emails regarding course content. Questions on the material should be raised on the course website, during class time, or during office hours.*

### Course Description:

In this course you will gain hands-on experience conducting human memory research. We will discuss the scientific method; how to design a good study; how to collect, analyze, and interpret data; and how to present your research findings. We will practice communicating our ideas through informal group discussions, writing assignments, and formal presentations.

### Learning Objectives:

- 1) Gain new knowledge about the scientific study of human memory; be able to define methods concepts; debate merits of various experimental designs and analysis techniques; interpret results of statistical tests from journal articles
- 2) Develop new skills in conducting experiments, writing, and public speaking. Be able to design a simple memory experiment and implement it; be able to perform data analysis and create graphs; be able to write an APA-formatted research paper; practice communicating your findings verbally in a formal presentation.
- 3) Practice your critical thinking and be able to assess the validity of research claims made in the popular press; identify a gap in the research literature, generate a hypothesis, and develop an empirical study that would successfully test this hypothesis.
- 4) Engage in professional development by being able to give and receive collegial feedback; collaborate successfully with others; identifying barriers in project completion; practicing time management.

**Note about prerequisites:** It is your responsibility to ensure that you have met **all** prerequisites listed in the Psychology section of the A&S Calendar for this course. If you lack any prerequisites you WILL BE REMOVED. No waivers will be granted.

### Provisional Course Overview

\* Except for written responses to the CogLab questions, all assignments unless otherwise noted are due *before* the class meeting (Thurs @ 1:10pm) on the assigned week.

Wk #	Date	Topics	Readings	Quiz*	CogLab <sup>+</sup>	Homeworks*	Research Project
1	Sept 8	Course Overview; Scientific Method	Chapter II. Overview of the Scientific Method; QALMRI	What do you wonder?	Purchase code & register		Try to install Excel, R & RStudio
2	Sept 15	Memory Experiment Designs	Radvansky Chapter 3 Chapter V. Experimental Research	✓	✓✓ CogLab1: #20 Brown-Peterson, STM CogLab2: #25 Operation Span, WM	Homework 1: Design Decisions prep Data collection & 1 paragraph methods draft	
3	Sept 22	Data Interpretation	Chapter XII. Descriptive Statistics	✓	✓✓ CogLab3: #28 Encoding Specificity CogLab4: #29 Levels of Processing	Homework 1: Design Decisions Homework 2: Popular Press prep Select articles	Look into Qualtrics and request an account if you may want to use this for your research project.
4	Sept 29	Data Collection & Ethics	Chapter III. Research Ethics	✓	✓✓ CogLab5: #30 Production Effect CogLab6: #31 Serial Position Effect	Homework 2: Popular Press	Think about potential project ideas. Ideally, this will be a new question that has not been asked in the literature before.
5	Oct 6	Data Analysis	Chapter XIII. Inferential Statistics Class Ethics	✓	✓✓ CogLab7: #33 False Memory CogLab8: #34 Forgot It All Along	Ethics Certificate (TPCS2) due <a href="https://tpcs2core.ca/welcome">https://tpcs2core.ca/welcome</a>	Read our approved Ethics for class Submit a refined research question for my consideration
<i>Guest Instructor: Merron Woodbury</i>							
6	Oct 13	Research Project [RP] Overview & Logistics	Chapter XI. Presenting Your Research, section 49 only	✓ Class Ethics		Work on data analysis for Homework 3	Dr. S to refine & distribute final research questions to groups
		RP group work: Decide on roles; begin experiment design					GOAL (wk 6/7): Solidify design for methods write-up;

						Pick experiment software & install
7	Oct 20	RP group work: Begin creating your task		✓** Check in		<i>Homework 3: Data Analysis &amp; Write-Up</i> GOAL (wk 6/7): Solidify design for methods write-up; Pick experiment software & install

\* Please complete CogLabs before coming to class. Write ups due the following Mon by 11:59pm.

Wk	Date	Topics	Check in	Research Project*
8	Oct 27	RP group work: Finalize experimental task; Begin data collection	✓**	Introduction & Methods Draft due this week
9	Nov 3	RP group work: Discuss project; collect data	✓**	Continue data collection
				Peer Review of Intro & Methods Draft
	Nov 10	No class: Reading week		
10	Nov 17	RP group work: Discuss project; collect data	✓**	Finish up data collection (N=8 per group member)
11	Nov 24	RP group work: Review & finalize data analysis	✓**	Data analyst should be prepared to describe analysis and present results to group members. The group should all agree on the decisions made and all group members should be solicited for ideas/feedback.
12	Dec 1	Project presentations & discussion		Group work reflection survey (all students); materials + data (1 submission per group) – deadline <b>Dec 5</b>
				Final paper submitted – deadline <b>Dec 5</b>
				Presentations for all groups – deadline <b>Dec 1</b>

✓\*\* Check-in surveys are due on class days by 11:59pm.

## Required Resources

**Textbook:** Jhangiani, Chiang, Cuttler, and Leighton (2019). Research Methods in Psychology (4th ed.). Download it for free here: <https://kpu.pressbooks.pub/psychmethods4e/>

**CogLab: The Online Cognition Lab.** Purchase the COGLAB 5 access code (C\$52.95) here: <https://www.cengage.ca/shop>. You will need to register with our course; see Quercus for detailed instructions.

## Marking Scheme

Assignment	Weight	Due Date
Reading Quizzes	4% (5 @ 1% each; lowest dropped)	Weekly (wk 2-5)
CogLab Experiments	16% (8 @ 2% each)	Weekly (wk 2-5)
Homeworks	18% (3 @ 6% each)	Sept 22, Sept 29, Oct 20
<b>Research Project</b>		
Introduction & Methods	10%	Oct 27
Peer Review	5%	Nov 3
Final Presentation	12%	Dec 1
Reflection/Group Participation	5%	Dec 5
Final Paper	20%	Dec 5
Class Participation	10%	Throughout term

## Evaluation Details

**Reading Quizzes:** Quizzes will consist of a few questions that are based on the readings for that week. You may reference the readings, recordings, and/or your notes during the quiz, but Quizzes will be timed at 15 minutes each. For this reason, quizzes will be *much* easier for those students who have watched the lecture recordings and read the assigned material before beginning. The 5 quizzes are worth a total of 4% of your grade. Each quiz is worth 1%, with the lowest grade dropped. This means you may skip up to one quiz for any reason without an impact on your mark.

**Homework Assignments:** There will be three homework assignments in the form of short (2-3 page) papers. These assignments are designed to give you practice with the skills you will need to successfully carry out your group research project. See the Quercus assignment pages for more details.

**CogLab Experiments:** You will participate in interactive experiments on human memory through the platform CogLab. After completing the experiments, you will have an opportunity to compare your results to our group's as well as global data. You will discuss (in-class) and complete short homework assignments on each of the experiments with your group. These assignments are mainly to get your group talking and thinking about the ideas behind each of the experiments; as such, they are not formal writing assignments. You may use point form or incomplete sentences where you feel it appropriate (i.e., if you are able to fully answer the question with comprehensible answers). Each group member should submit their own assignment, with the (first) names of all group members noted in each student's document.

**Research Project:** The major assignment in this course is a group research project. You will design and conduct a real experiment in human memory with your assigned group. This will be the main focus of class for the second half of the term. Together we will brainstorm research questions that are of interest to the class and I will revise and assign a subset of them to groups. Your group will be in charge of all stages of the project from designing and implementing the experimental task, collecting and analyzing the data, and interpreting and (individually) writing up your results. For more details on the specific sub-assignments, see the Quercus assignment pages.

### Research project division of responsibility:

- Each group member must collect data from N=8 participants.

- Each group member must write their own paper. You may use the same figures as your groupmates, but the writing (including figure legends) must be your own.
- Otherwise, you are encouraged to divide and conquer. Research is a collaborative endeavor and you will practice that this term. Some roles to consider: stimulus collector/developer; instruction writer/creator; experiment programmer; data analyst; figure creator. You may want to determine who should be in charge of each by playing to each member's strengths and past experience. In addition, be flexible; you may find that some jobs are more or less work than anticipated and need to make a change. That's ok! Adapt as the needs of the project change.
- Regardless of the role(s) you personally take on in the project, all group members must be informed about the study – for example, you must know how the experiment was designed, run, and be able to explain how and why all analyses were conducted.

Final paper formatting & submission method: Please use 12-point font, double spacing, and 1 inch margins. Your paper is expected to be somewhere between 15-25 pages. There are no specific requirements for length, but the following are general guidelines: Introduction, 5-7 page; Methods, 2-5 pages; Results, 2-5 pages; Introduction, 5-7 pages. All references should be listed using APA style. Your paper must be uploaded in PDF format to Quercus before the deadline. This includes an Original Review (see Course Policies).

## Course Policies

**University's Plagiarism Detection Tool (Original):** Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (<https://uoft.me/pdt-faq>).

**Quercus Information, including expectations for students to check:** This course uses the University's learning management system, Quercus, to post information about the course. This includes posting readings and other materials required to complete class activities and course assignments, as well as sharing important announcements and updates. The site is dynamic and new information and resources will be posted regularly as we move through the term, so please make it a habit to log in to the site on a regular, even daily, basis. To access the course website, go to the U of T Quercus log-in page at <https://q.utoronto.ca>. Once you have logged in to Quercus using your UTORid and password, you should see the link or 'card' for PSY379. You may need to scroll through other cards to find this. Click on the PSY379 link to open our course area, view the latest announcements and access your course resources. There are Quercus help guides for students that you can access by clicking on the '?' icon in the left side column. **SPECIAL NOTE ABOUT GRADES POSTED ONLINE:** Please also note that any grades posted are for your information only, so you can view and track your progress through the course. No grades are considered official, including any posted in Quercus at any point in the term, until they have been formally approved and posted on ROSI at the end of the course. Please contact me as soon as possible if you think there is an error in any grade posted on Quercus.

**Lecture Slides:** Lecture slides will be posted before class. Please consider the environment before printing your lecture slides. You might opt to take notes digitally instead of on print-outs or print double-sided.

**Class Meetings:** Due to the interactive nature of this course and its focus on group projects, students are strongly encouraged to attend all class meetings. If you are unable to attend class for any reason, you are responsible for getting in touch with a classmate(s) to determine what content you missed.

**Notice of video recording and sharing.** This course, including your participation, *may* be recorded on video and be made available to students in the course for viewing remotely and after each session. You will be told when a recording is going to happen. Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation, and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor. For questions about recording and use of videos in which you appear please contact your instructor.

**Online Communication:** Emails to the instructor and/or TA are *ONLY* for genuine emergencies (e.g., illness). Please do *not* use the build-in communication tool on Quercus, called “Inbox,” for this purpose. Please ask your content-related questions in the following ways: during class; on discussion boards; by filling out the weekly survey; by meeting with the TA; or by scheduling an individual appointment to meet with the instructor at the following website: <https://calendly.com/schlichting/10-minute-meeting-office-hours>. Neither the instructor nor teaching assistant will be able to respond to emails regarding course content. You must use your utoronto email address for all course-related communication, and it is expected that you will check your utoronto email account regularly. I will make every effort to respond to questions posted to the discussion board within one business day. I will *not* respond to questions on evenings, holidays, or weekends, so plan ahead!

**Late assignments:** See the table above for assignment due dates. Except in the case of a documented emergency (see above), late assignments will be marked down 10% of the assignment grade per day.

**FAS grading guidelines (<http://www.writing.utoronto.ca/advice/general/grading-policy>):**

- A+** Outstanding performance, exceeding even the A described below.
- A** Exceptional performance: strong evidence of original thinking; good organization, capacity to analyze and synthesize; superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.
- B** Good performance: evidence of grasp of subject matter; some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.
- C** Intellectually adequate performance: student who is profiting from her or his university experience; understanding of the subject matter and ability to develop solutions to simple problems in the material.
- D** Minimally acceptable performance: some evidence of familiarity with subject matter and some evidence that critical and analytic skills have been developed.
- F** Inadequate performance: little evidence of even superficial understanding of the subject matter; weakness in critical and analytic skills; with limited or irrelevant use of literature.

**Drop Deadline:** November 16, 2022. Last day to drop course from academic record and GPA. After this deadline a mark is recorded for each course—whether the course work is completed or not (zero points are earned for incomplete work)—and calculated into the GPA.

**Religious Accommodations:** As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of backgrounds, cultural traditions, and spiritual beliefs. For my part, I will make every reasonable effort to avoid

scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate being absent from class or missing a major course activity due to a religious observance, please let me know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

**Students with Disabilities or Accommodation Requirements:** Students with diverse learning styles and needs are welcome in this course. If you have an acute or ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) at the beginning of the academic year by visiting <http://www.studentlife.utoronto.ca/as/new-registration>. Without registration, you will not be able to verify your situation with your instructors, and instructors will not be advised about your accommodation needs. AS will assess your situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. Remember that the process of accommodation is private: AS will not share details of your needs or condition with any instructor, and your instructors will not reveal that you are registered with AS.

**Specific Medical Circumstances:** If you become ill and it affects your ability to do your academic work, consult me right away. Normally, I will ask you for medical documentation in support of your specific medical circumstances. The University's Verification of Student Illness or Injury (VOI) form is recommended because it indicates the impact and severity of the illness, while protecting your privacy about the details of the nature of the illness. You can submit a different form (like a letter from a doctor), as long as it is an original document, and it contains the same information as the VOI. For more information, please see <http://www.illnessverification.utoronto.ca>. If you get a concussion, break your hand, or suffer some other acute injury, you should register with Accessibility Services as soon as possible.

**Accommodation for Personal Reasons:** There may be times when you are unable to complete course work on time due to non-medical reasons. If you have concerns, speak to me. It is also a very good idea to speak with an advisor in your College Registrar's office; they can support you in requesting extensions or accommodations, and importantly, connect you with other resources on campus for help with your situation.

**Harassment and Discrimination:** The University of Toronto is a richly diverse community and as such is committed to providing an environment free of any form of harassment, misconduct, or discrimination. In this course, I seek to foster a civil, respectful, and open-minded climate in which we can all work together to develop a better understanding of key questions and debates through meaningful dialogue. As such, I expect all involved with this course to refrain from actions or behaviours that intimidate, humiliate, or demean persons or groups or that undermine their security or self-esteem based on traits related to race, religion, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, gender identity, gender expression, age, marital status, family status, disability, receipt of public assistance or record of offences.

**Re-marking:** All requests for re-marking must be submitted *in writing* within two calendar weeks of the first day the marked test or assignment is available for student viewing. Only requests that include adequate written justification of an oversight in the original grading will be considered. Be as specific as possible. A legitimate request will result in the entire test or assignment being re-graded. Note that in agreeing to resubmit your work for remarking, you are agreeing to a re-evaluation of the entirety of your work; your grade may go up, go down, or stay the same. If there has been an error in our arithmetic, please let us know and we will immediately recalculate your grade (no written request necessary). *Negotiations for extra marks once final grades are in will not be tolerated. Arbitrary requests for grade increases will not be entertained (e.g., "I need to get into*

*grad school, so could you please change my grade from a B+ to an A-?”). If I did this for one person, I would need to do it for everyone in the class. Please do not ask for special treatment – it is unfair to your classmates.*

**Course materials, including lecture notes:** Course materials are provided for the exclusive use of enrolled students. Do not share them with others. I do not want to discover that a student has put any of my materials into the public domain, has sold my materials, or has given my materials to a person or company that is using them to earn money. The University will support me in asserting and pursuing my rights, and my copyrights, in such matters.

## **Additional Resources**

**Mental health and well-being:** As a student, you may experience challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation, financial concerns, family worries and so forth. These factors may affect your academic performance and/or reduce your ability to participate fully in daily activities. All of us benefit from support and guidance during times of struggle; there is no shame in needing help or in asking for help. There are many helpful resources available through your college Registrar or through Student Life ([studentlife.utoronto.ca](http://studentlife.utoronto.ca) and [studentlife.utoronto.ca/feeling-distressed](http://studentlife.utoronto.ca/feeling-distressed)). An important part of the University experience is learning how and when to ask for help. Please take the time to inform yourself of available resources and do not hesitate to seek assistance from your Teaching Assistant or from me to help learn what supports are available.

**Academic Integrity:** All students, faculty and staff are expected to follow the University’s guidelines and policies on academic integrity. For students, this means following the standards of academic honesty when writing assignments and collaborating with fellow students. Ensure that all work you submit represents your own honest efforts. Plagiarism—representing someone else’s work as your own or submitting work that you have previously submitted for marks in another class or program—is a serious offence that can result in sanctions. The following are *examples* of offences:

- Using someone else’s ideas or words in one’s own work without acknowledging in a citation that those ideas/words are not one’s own.
- Including false, misleading or concocted citations in one’s work.
- Obtaining unauthorized assistance on any assignment or to provide unauthorized assistance to another student.
- Using or possessing an unauthorized aid in any test or exam.
- Submitting work for credit in more than one course without permission of the instructor.
- Falsifying or altering any documentation required by the University (e.g., doctors’ notes).

Speak to me for advice on anything that you find unclear. To learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at [writing.utoronto.ca](http://writing.utoronto.ca). Consult the Code of Behaviour on Academic Matters for a complete outline of the University’s policy and expectations. For more information, please see [artsci.utoronto.ca/osai](http://artsci.utoronto.ca/osai) and [academicintegrity.utoronto.ca](http://academicintegrity.utoronto.ca).

**Writing:** As a student here at the University of Toronto, you are expected to write well. The university provides its students with a number of resources to help them improve their writing, including one-on-one appointments with writing instructors, free workshops, and English Language Support. For more information on campus writing centres and activities, please visit [writing.utoronto.ca](http://writing.utoronto.ca).