Psychology
UNIVERSITY OF TORONTO

# PSY270H1F– Introduction to Cognitive Psychology
## Tuesdays and Thursdays 1 – 4 pm
## SS1073

## Course Delivery

This is an in-person course. Students are expected to attend lectures in-person whenever possible. Lectures will be recorded for later viewing, but you must attend in person to get the participation credits (see course schedule on the last page for participation dates).

If external circumstances change (e.g. public health guidelines, instructor illness/quarantine, etc.), the course may need to move online for one or more lectures.

## Contact Information

**Course Instructor:**
**Dr. Christine Burton**
email: christine.burton@utoronto.ca

**Office hours via Zoom**
Sign-up for office hours required at
https://calendly.com/christine-burton/office-hour-1

All office hours will be individual 15-minute appointments during the following times :

Mondays 2 - 3 pm online or in person (SS4001)
Tuesdays 10 - 11 am online only

**Teaching Assistants:**
Maxime Perron: maxime.perron@mail.utoronto.ca
Prateek Dhamija: prateek.dhamija@mail.utoronto.ca

The TAs will be available to meet virtually with students after the distribution of graded tests and assignments.

The TAs will also hold dedicated office hours to answer questions you have about the written assignments before they are due.

## Course Description

Cognitive psychology is the study of the building blocks of how we think and reason. We need to be able to pay attention, create mental representations, remember information, manipulate knowledge and express thoughts. Thus, in this course we will discuss the fundamentals of attention, memory, problem solving, decision making and language.

## Course Objective

My goal for this course is to familiarize you with the leading theories in cognitive psychology so that you are able to discuss the fundamental topics in the field, create hypotheses using this knowledge and apply this to everyday situations. Assigned textbook readings explain important concepts and will help lay a foundation on which you can build your knowledge. In lectures we will elaborate on the material in the text and highlight connections between the various topics, experiments that have been conducted in the area, and real-life situations.

Experimentation is an important part of cognitive psychology so I have included assignments specifically designed to let you participate in cognitive psychology research and use your new knowledge.

By the end of this course, you should be able to:

- Describe the major terms, concepts and theories in cognitive psychology
- Understand how unconscious cognitive processes influence our everyday behaviour

- Understand how the historical development of cognitive psychology has shaped the questions researchers in cognitive psychology ask today
- Explain how empirical findings can support or refute psychological theories
- Identify key variables in empirical research and infer evidence-based conclusions
- Analyse and critique published research in cognitive psychology
- Communicate scientific data in the form of written reports

## Reading Material

**Barenholtz, et al. (2022). Cognitive Psychology, 2nd ed. Tophatmonocle Corp.** This textbook is only available through the Top Hat platform. This allows significant savings for students compared to some of the other frequently used Cognition textbooks, and integration of all course materials into one platform.

In addition to the Top Hat textbook, we will be using Top Hat Classroom for participation this term and to facilitate in-class lab activities.

The materials can be purchased as a bundle either through the U of T online bookstore or directly from Top Hat using the instructions in the email you will receive to your mail.utoronto.ca account. You will need our course **Join Code (199282)** to purchase the materials form Top Hat and to join the course.

## Course Evaluation

| Midterm test | May 23  120 minutes | 28% | **Top Hat homework** | May 23 and June 17 | 3% |
|---|---|---|---|---|---|
| **Final Exam** | TBD: June 19-24  120 minutes | 36% | **Top Hat lab participation** | Ongoing | 3% |
| **Lab reports** | 11:59 pm EST May 30 and June 13 | 2 @ 15% each = 30% | **Bonus experiment participation** | Ongoing | 1% |

## Tests

There will be a midterm test and a final exam in this course. Both the test and the final exam will be held in-person. If public health and/or university guidelines change, the test and/or exam may need to shift online. The test and exam will consist of multiple choice and short answer questions. The final exam will be cumulative and will cover all material from the course.

## Bonus Experiment Participation

You have the opportunity to receive 1% bonus credit by participating in a psychology experiment in the Cognitive Neuroscience Lab. Participating in an experiment is an excellent way to experience how research is conducted in psychology and it is vital to the ongoing research in the field. To sign up for an experiment go to https://utsg-ferberlab.sona-systems.com/ and register as a new user with your UTOR email. Detailed instructions are available on Quercus. If you do not want to participate in an experiment there is still an opportunity for you to receive a bonus point. Please email your instructor for instructions about an alternate assignment.

## Top Hat Participation

There are 2 types of Top Hat participation in this course.

The first is related to the experiment participation described below that will contribute to the lab report assignments. There are 6 experiments to participate in throughout the term with each experiment participation worth 0.5%. In order

to receive the full 3% participation, you will need to participate in at 5 of 6 experiments (2.5% rounded up).

The second Top Hat component requires you to answer "homework" questions posted on Top Hat after each lecture. Research has demonstrated that a good way to learn material is to be tested on it. With that goal in mind, these homework questions are based on lecture and textbook material and will help as practice questions for the test and exam. Your score will be calculated as the total number of correct answers out of all questions multiplied by 3% (for example, if you get 80 questions correct out of 100 questions asked throughout the term, your score will be 2.4 points added to your final grade). The homework questions are due before the midterm test and the final exam.

## Assignments

I intend the assignments to give you an opportunity to participate in both classic and recent cognitive psychology experiments and encourage you to use the information in the course to think beyond the course material. During class you will participate in replications of classic cognitive psychology experiments using Top Hat. The point of the assignments is to give you hands on experience both participating in experiments and acting as an experimenter. Top Hat allows you to participate in psychology replications in class and send real-time data to me using your laptop or cell phone. I will perform simple statistical analyses based on the class data and present it the following class. You will then be expected to write lab reports based on the class data from 2 of the experiments we will complete throughout the term. Detailed instructions about the lab reports are available on Quercus.

All written assignments will be submitted via Quercus. **It is your responsibility to ensure that you have submitted the correct file and that it can be opened.** After submitting your paper, please double check that is has not been corrupted, that it in written in English characters, and that you didn't submit a paper from a different course. You will be responsible for any late penalties that accrue if you need to submit the correct paper after the due date.

## Plagiarism Detection Tool

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://teaching.utoronto.ca/resources/plagiarism-detection/).

Students who wish to opt-out of using the University's plagiarism detection tool for the case study assignment must notify the instructor (via Quercus inbox message/email) no later than 5PM on May 17. Upon receipt of notification, the instructor will request that the student provide all rough work (including, but not limited to, call numbers and/or URLs for all cited sources) when submitting their case study assignment.

## Course Webpage

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. New information and resources will be posted regularly as we move through the term. To access the course website, go to the U of T Quercus log-in page at https://q.utoronto.ca. 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 ACORN 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.

## IMPORTANT COURSE POLICIES   **PLEASE READ**

# Email

The main source of communication in the course will be email. **Please include the course number and lecture section (PSY270) in the subject line in all your emails about the course. Avoid sending me messages directly from**

**Quercus/Canvas.** These messages always end up in my "other" folder so I may not get to them quickly.

For all issues that apply to course material/other students in the class, please refer to the FAQ on Quercus. If you don't see it on the FAQ, please email me and I will add it!

## Requests for Re-grading

Any requests to re-grade tests or experiment reports should be made in a timely fashion. All requests to re-grade term tests or lab reports must be made within 2 weeks of the return of the graded report. **Please direct all requests for re-grading directly to the TA who marked your work.** If you are dissatisfied after meeting with the TA you may submit your work to the instructor. Keep in mind that if you submit your work to be re-graded, your grade could go up or down. This policy applies to work submitted to the instructor or the TAs.

## Missed Test Special Consideration Request Process

If the midterm test for reasons beyond your control (illness or accident), please contact me with documentation in support of your specific circumstances within one week of the missed test. This documentation can be an Absence Declaration (via ACORN) or the University's Verification of Student Illness or Injury (VOI) form. The VOI indicates the impact and severity of the illness, while protecting your privacy about the details of the nature of the illness. If you cannot submit a VOI due to limits on terms of use, 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 (including dates, academic impact, practitioner's signature, phone and registration number). For more information on the VOI, please see https://registrar.utoronto.ca/policies-and-guidelines/verification-of-illness-or-injury/. For information on Absence Declaration Tool for A&S students, please see https://www.artsci.utoronto.ca/current/academics/student-absences. If you get a concussion, break your hand, or suffer some other acute injury, you should register with Accessibility Services as soon as possible.

**If your request if approved, you will have one opportunity to write a make-up test. If you miss the make-up test and can provide documentation to support your request, the weight of the missed test will be redistributed to the final exam.**

Students who miss final examinations should file a petition for a deferred exam with their College Registrar's Office.

## Accommodations 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. Extensions for term work can be arranged on a case-by-case basis. 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.

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. Everyone feels stressed now and then – it is a normal part of university life. Some days are better than others, and there is no wrong time to reach out. There are resources for every situation and every level of stress. There are many helpful resources available through your College Registrar or through Student Life (httsp://studentlife.utoronto.ca and https://studentlife.utoronto.ca/task/support-when-you-feel-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.

## Penalties for Lateness

The penalty for lateness is 5% of the total per calendar day.

Students who seek to be granted more time to complete their term work beyond the due date without penalty, owing to circumstances beyond their control (e.g., illness, or an accident), must do so by submitting a request directly to the Instructor for the period up to and including the last day of the final assessment period.

*Any term work that will be handed in **after** the final assessment period is subject to a petition for extension of term work. This petition should be filed with the student's College Registrar's Office.*

**Academic Resources**

## Accessibility Needs

Students with diverse learning styles and needs are welcome in this course. If you have an ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) (https://studentlife.utoronto.ca/department/accessibility-services/) at the beginning of the academic year. 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 then assess your medical 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 condition with any instructor, and your instructors will not reveal that you are registered with AS.

## 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 achieve this.  For more information on campus writing centres and writing courses, please visit https://writing.utoronto.ca/.

## Privacy and Copyright Disclaimer

***Notice of video recording and sharing (Download permissible; re-use prohibited)***
This course, including your participation, will be recorded on video and will be available to students in the course for viewing remotely and after each session.

For questions about recording and use of videos in which you appear please contact your instructor.

Course videos and materials belong to your instructor, the University, and/or other source depending on the specific facts of each situation, and are protected by copyright. In this course, you are permitted to download session videos and materials for your own academic use, but you should not copy, share, or use them for any other purpose without the explicit permission of the instructor.

Lectures and course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Copyright Act, RSC 1985, c C-42. Course materials such as PowerPoint slides and lecture recordings are made available to you for your own study purposes. These materials cannot be shared outside of the class or "published" in any way. Posting recordings or slides to other websites without the express permission of the instructor will constitute copyright infringement.

## Academic Integrity and Plagiarism

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters (https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019). If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, please reach out to me. Note that you are expected to seek out additional information

on academic integrity from me or from other institutional resources. For example, 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 https://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 A&S Student Academic Integrity (https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity) and the University of Toronto Website on Academic Integrity (https://www.academicintegrity.utoronto.ca).

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

**Please note that the use of generative artificial intelligence tools and apps is strictly prohibited in all course assignments unless explicitly stated otherwise by the instructor in this course. This includes ChatGPT and other AI writing and coding assistants. Use of generative AI in this course may be considered use of an unauthorized aid, which is a form of cheating.**

…course outline continued on next page….

## Course Outline

| Date | Topic | Reading |
|------|-------|---------|
| May 7 | Introduction, themes and research methods | Chapters 1 and 2 |
| May 9 | Perception | Chapter 4 |
| May 14 | Attention<br>**In class experiment using Top Hat** | Chapter 5 |
| May 16 | Short-term storage<br>**In class experiment using Top Hat** | Chapter 6 |
| May 21 | Long-term memory: Systems and processes<br>**In class experiment using Top Hat** | Chapter 7 |
| May 23 | **Midterm Test** | |
| May 28 | Long-term memory in practice<br>**In class experiment using Top Hat** | Chapter 8 |
| May 30 | Knowledge | Chapter 9 |
| June 4 | Imagery<br>**In class experiment using Top Hat** | Chapter 10 |
| June 6 | Decision making<br>**In class experiment using Top Hat** | Chapter 13 |
| June 11 | Language: Language development and phonology | Chapter 11 |
| June 13 | Language: Syntax and discourse | Chapter 11 |

*Please note that the content of chapter 3 (The Brain) will not explicitly be covered or tested, however, we will refer to some brain areas and functions throughout the course, so it is your responsibility to ensure you are familiar with the basic ideas covered in the chapter.