

# **PSYD50H3: Current Topics in Memory & Cognition**

**Wednesdays 9 AM – 11 AM, Online Synchronous**

**Fall 2020**

**Instructor:** Aedan Li, PhD Candidate in Cognitive Neuroscience

**Email\*:** [aedanyue.li@utoronto.ca](mailto:aedanyue.li@utoronto.ca)

**Location:** Zoom (link posted on Quercus)

**Office Hours:** By appointment, [https://calendly.com/psyd50\\_fall2020/office-hours](https://calendly.com/psyd50_fall2020/office-hours)

**Pre-requisites:** [PSYB55H3 or PSYB57H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [0.5 credit at the C-level in PSY courses]

**Exclusions:** PSY470H, PSY471H

*\*Please post course/content related questions to the discussion forum. For the benefit of other students, I will address these questions on Quercus.*

## **1. Course Description and Objectives**

How does the brain support memory? Are there different types of memories? Do different brain regions make distinct contributions to different cognitive processes? The present course is designed to provide you with an in-depth understanding of some of the key issues in the cognitive neuroscience of memory. Although you may have come across some of these topics in previous courses in Years 1 to 3, you will soon discover that there is considerable debate surrounding each one.

Because we will be considering areas of controversy, you will notice that many of the papers we read describe findings that appear to be contradictory and confront research questions that remain unanswered. The typical outcome of an experiment is that more new questions are raised, rather than old ones answered. The objective of this course is to give you the ability to evaluate the primary literature yourselves, so you can draw your own conclusions about how memory processes take place in the brain.

Beyond learning about theories of memory, we hope that you will learn important life skills regardless of the career path you choose. These include public speaking, providing constructive feedback to your peers, benefiting from feedback you receive from your peers, and succinctly describing your ideas and convincing others of their merit – either in the written or spoken form.

**In summary, by the end of the course, you will:**

A) Be knowledgeable in a number of current ‘hot topics’ in cognitive neuroscience memory research focused largely on the functions of the medial temporal lobe structures.

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B) Be knowledgeable in cutting-edge neuroimaging techniques used to study the relationship between brain and behaviour.

C) Be able to consider experimental data critically and reconcile divergent findings.

D) Understand how to discuss, summarize, critique, and present experimental evidence in the context of a persuasive written article and oral presentation.

E) Develop your own viewpoint based on evidence available in the literature.

The last three skills are particularly crucial as they are transferable to other courses and more importantly, will serve you well in the future no matter what further studies/career you pursue.

## 2. Schedule

Everyone will be randomly divided into 6 debate groups in Week 2. The assigned work (summary paper, oral presentations, and 'Discussants') for Weeks 3 to 9 will depend on which debate group you are in.

Date	Topic
September 9	<b>Overview of syllabus</b> <b>Introduction to the course</b> <i>Laying the foundations:</i> 1. Fundamental neuroanatomy 2. Modern neuroimaging techniques and cognitive theory
September 16	<b>Practical session:</b> 1. How to write a summary and critique paper 2. How to prepare an oral presentation 3. How to prepare a data blitz 4. Information on final paper
September 23	<b>Long-term &amp; short-term memory I</b> Introducing key concepts and discussion of 2 research articles
September 30	<b>Long-term &amp; short-term memory II</b> Debate: group 1 vs. group 2 <i>Groups 3, 4, 5, 6. Long-term/short-term memory summary paper due.</i>
October 7	<b>Memory &amp; perception I</b> Introducing key concepts and discussion of 2 research articles
October 14	<b>Reading week</b>
October 21	<b>Memory &amp; perception II</b> Debate: group 3 vs. group 4 <i>Groups 1, 2, 5, 6. Memory/perception summary paper due.</i>

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October 28	<b>Representational models &amp; process models I</b> Introducing key concepts and discussion of 2 research articles
November 4	<b>Representational models &amp; process models II</b> Debate: group 5 vs. group 6 <i>Groups 1, 2, 3, 4. Representational/process model summary paper due.</i>
November 11	<b>Synthesis: So, what does the medial temporal lobe do?</b> General discussion and synthesis  <i>Final day to confirm the paper selected for the data blitz.</i>
November 18	<b>Data blitz I</b> 5-minute presentation on any paper related to course content published in the past 10 years (presenters chosen at random)
November 25	<b>Data blitz II</b> 5-minute presentation on any paper related to course content published in the past 10 years (all other presenters)
December 2	<b>Flexibility Date:</b> <i>Tentative</i> – Lecture on Consciousness and discussion of research articles.  <i>Final written assignment due by 9 AM on December 7.</i>

Any slides will be posted on the course website (in the “Content” section) **by midnight at the latest** the night before the lecture.

**Drop dates: November 23** is the last day to drop F courses without academic penalty and have them removed from the transcript (on ROSI only). **December 7** is the last day to drop UTSC F courses on eService and have them remain on the transcript with a grade of LWD indicating withdrawal without academic penalty. After this date grades are recorded on transcripts whether course work is completed or not (with a '0' assigned for incomplete work) and they are calculated into GPAs. (Note: See [www.utsc.utoronto.ca/registrar](http://www.utsc.utoronto.ca/registrar) for LWD dates for courses on other campuses.)

### 3. Course reading

There is no required textbook for this course. All the readings will be based on primary articles in the literature and available electronically through the U of T library.

### 4. Course evaluations

#### 4.1. Summary

#### 15% Class participation

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**20% Summary papers**  
**15% Oral presentation**  
**15% Data blitz**  
**35% Final written assignment**

## 4.2. Details

### A) Class participation (15%)

Participation is essential for success in this course. Participation is reflected in your mental attendance in class, not just being physically present during class time. Your participation mark will be based on how much you contribute to the learning environment in the class. This includes actively listening during your classmates' presentations, asking questions, contributing to the discussion, and evaluating your classmates' presentations (see below). The participation mark will be determined based on the quality of the intellectual contribution, not based on the sheer number of words uttered. Class participation will be assessed by the quality of contributions to class discussions (15%).

The quality of contributions to class discussions will be partially assessed by 'Discussants' who will lead our discussion on lecture days (Weeks 3, 5, and 8). On lecture days, individuals that are not presenting the following week must prepare a brief list of 3 – 5 questions or thoughts for two contradictory studies on the reading list for that week. Preparing these questions will help with writing the final paper (section E). **The question list should be uploaded to Quercus by the beginning of the specified class (see course schedule).** Note, however, that active participation throughout the course is required to gain full marks in this section.

### B) Summary papers (Paper 1: 10%. Paper 2: 10%)

Everyone will be required to write two brief summary papers, each based on one reading list article. Each paper should set the theoretical background and summarize the study (**BRIEFLY**; 4 – 6 sentences max!) and provide a critical analysis of the paper (e.g., discussing potential confounds or providing a future direction of investigation). Each paper should cite 1 article in addition to the main article to back up any claims made and should be a **maximum of 500 words**, not including title or reference list. Please use 12-point font, double spacing, 1-inch margins, and Microsoft or PDF file format. All references should be listed using APA-style. **The papers should be submitted to Quercus by the beginning of the specified class (see course schedule table for due dates).** The summary papers will be assessed for structure and clarity, accuracy, and critical analysis.

### C) Oral presentation (15%)

Everyone will be required to give an oral presentation as part of the 'Debate' sessions. Each debate will involve two groups, each taking opposite sides of a theoretical debate. Each group will be given a reading list and each member of the group will be asked to give a 10-minute PowerPoint oral presentation on an article from the reading list describing the theoretical background of the study, the methods and findings of the study, the strengths of the study, and why the study is important evidence for the theoretical viewpoint

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it supports. Each presentation will be assessed for structure and clarity, accuracy, critical analysis, and communication of material. After all presentations are completed, the floor will be open for questions from the audience and each group must defend their theoretical viewpoint.

#### **D) Data blitz (15%)**

The “data blitz” talk is a staple of many scientific conferences and fits in with one of the stated goals of the course: expressing your ideas convincingly and succinctly. Each data blitz will involve a 5-minute PowerPoint oral presentation on any peer-reviewed paper published in the past 10 years related to course content, with 5 minutes for questions. I recommend 1-2 slides to introduce the background, 1 slide to discuss methods, 1 slide to illustrate results, and 1 slide to discuss the significance. Be sure that you have timed out your talk! When preparing this presentation, imagine that you are presenting it to a grant panel: you need to convince them that the research question is theoretically motivated, the methods are sound, and that the results will make an important contribution to the field.

**The peer-reviewed article selected for the data blitz should be confirmed with me by November 11<sup>th</sup>.** Like the oral presentation, the data blitz will be assessed for structure and clarity, accuracy, critical analysis, and communication of material.

#### **E) Final written assignment (35%)**

Everyone will be required to write a final assignment, which **should be submitted to Quercus by 9 AM on December 7<sup>th</sup>.** The topic of each student’s final assignment will be the same as that for their oral presentation (titles will be assigned in due course). The final assignment is basically a longer and more in-depth version of the summary papers, covering a wide range of articles and focusing on reconciling two contradictory perspectives. The paper should be **between 2500 – 3000 words** not including title or reference list, typed in 12-point font, double-spaced with 1-inch margins and in Microsoft Office or PDF file format. All references should be listed using APA-style. The final assignment will be assessed for structure & clarity, accuracy, and critical analysis.

## **5. Course Policies**

### **5.1. Late assignments**

Summary papers and ‘Discussant’ questions are due ***at the beginning of class*** on the specified due date, whereas the final assignment is due at 9 AM on the specified date. Except in the case of a documented emergency (see section 6), for every 24 hours that the paper is late, 10% will be docked off the final mark. For instance, for the first summary paper deadline September 30 a paper handed in past 9 AM on September 30 will only receive 90% of the mark the quality of the work deserves, a paper handed in past 9 AM on October 1 will only receive 80% of the mark the quality of the work deserves, and so forth.

If you know in advance of a legitimate reason for being absent or unable to meet a specific class deadline (e.g., religious holiday or academic event), please contact your instructors as soon as possible. Reasonable

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accommodations will be made if possible, but early notice is critical for this. All unplanned absences for graded elements of the course are covered under section 6 listed below.

## 5.2. Grading

### Arts and Science Statement on What Grades Mean:

Percentage	Letter Grade	Grade Point Value	Grade Definition	
90-100	A+	4.0	Excellent	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.
85-89	A	4.0		
80-84	A-	3.7		
77-79	B+	3.3	Good	Evidence of grasp of subject matter, some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with literature.
73-76	B	3.0		
70-72	B-	2.7		
67-69	C+	2.3	Adequate	Student who is profiting from the university experience; understanding of the subject matter and ability to develop solutions to simple problems in the material.
63-66	C	2.0		
60-62	C-	1.7		
57-59	D+	1.3	Marginal	Some evidence of familiarity with the subject matter and some evidence that critical and analytic skills have been developed.
53-56	D	1.0		
50-52	D-	0.7		
0-49	F	0.0	Inadequate	Little evidence of even superficial understanding of subject matter; weakness in critical and analytic skills; limited or irrelevant use of literature.

## 5.3. Contesting a grade

All requests for a re-grade must be submitted in writing within two weeks of the day the grade is received. Only requests that include adequate written justification of an error in the original grading will be considered. *A legitimate request will result in the entire assignment being re-graded. Your overall grade may be raised, lowered, or it may stay the same.*

## 5.4. Course Materials & Audio/Video Recording

Instructional materials are made available only for the purposes of this course and should not be distributed or used for any other purpose. As outlined in the Provost's guidelines on *Appropriate Use of*

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*Information and Communication Technology*, for reasons of privacy as well as protection of copyright, unauthorized video or audio recording in classrooms is prohibited unless written permission has been granted by the instructor or for students with specific accommodations to do so.

## 5.5. Academic Integrity

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 (<http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

Potential offences include, but are not limited to:

**In papers and assignments:** Using someone else's ideas or words without appropriate acknowledgement; Submitting your own work in more than one course without the permission of the instructor; Making up sources or facts; Obtaining or providing unauthorized assistance on any assignment.

**On tests and exams:** Using or possessing unauthorized aids; Looking at someone else's answers during an exam or test; Misrepresenting your identity; and When you knew or ought to have known you were doing it. In academic work: Falsifying institutional documents or grades; Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes; and; when you knew or ought to have known you were doing so. All suspected cases of academic dishonesty will be investigated following procedures outlined in the

**Code of Behaviour on Academic Matters.** If students have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, they are expected to seek out additional information on academic integrity from their instructors or from other institutional resources.

**Note:** You may see advertisements for services offering grammar help, essay editing and proofreading. Be very careful. If these services take a draft of your work and significantly change the content and/or language, you may be committing an academic offence (unauthorized assistance) under the Code of Behaviour on Academic Matters. It is much better and safer to take your draft to the Writing Centre as early as you can. They will give you guidance you can trust. Students for whom English is not their first language should go to the English Language Development Centre. If you decide to use these services in spite of this caution, you must keep a draft of your work and any notes you made before you got help and be prepared to give it to your instructor on request.

## 5.6. Time Zone conflicts

If you are physically in a different time zone and a quiz or midterm is scheduled outside of 7:00am to midnight in your local time, you may use the following form to request special arrangements. Note that the form is only for term work. [Final exam conflicts](#) are handled by the Registrar's Office.

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The form must be submitted **at least ten (10) business days before the activity.**

Form: <https://uoft.me/PSY-TimeZone>

**Submit via email to:** Keely Hicks, Departmental Assistant, [keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)

## 6. Psychology Missed Term Work due to Medical Illness or Emergency Policy

All students citing a documented reason for missed term work must submit their request for accommodations **within three (3) business days** of the deadline for the missed work.

**Submit via email to:** Keely Hicks, Departmental Assistant, [keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)

Students must submit **BOTH** of the following:

- (1.) A completed **Request for Missed Term Work Accommodations form** (<http://uoft.me/PSY-MTW>), and
- (2.) **Appropriate documentation** to verify your illness or emergency, as described below.

### **Appropriate documentation:**

For missed **ASSIGNMENTS or TERM TESTS** due to **FLU-LIKE SYMPTOMS or SELF-ISOLATION REQUIREMENTS:**

- Email the Request for Missed Term Work Accommodations form ([uoft.me/PSY-MTW](http://uoft.me/PSY-MTW)) to Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)), and
- **Declare** your absence on **ACORN** (Profile & Settings > Absence Declaration)

For missed **ASSIGNMENTS** due to **OTHER ILLNESS:**

- Email the Request for Missed Term Work Accommodations form ([uoft.me/PSY-MTW](http://uoft.me/PSY-MTW)) to Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)), along with the Self-Declaration of Student Illness Form ([uoft.me/PSY-self-declare-form](http://uoft.me/PSY-self-declare-form)).

For missed **TERM TESTS** due to **OTHER ILLNESS:**

- Email the Request for Missed Term Work Accommodations form ([uoft.me/PSY-MTW](http://uoft.me/PSY-MTW)) to Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)), along with a scan/photo of the **original** copy of the official UTSC Verification of Illness Form ([uoft.me/UTSC-Verification-Of-Illness-Form](http://uoft.me/UTSC-Verification-Of-Illness-Form)) or an **original** copy of the record of visitation to a hospital ER.
- Forms are to be completed in full, clearly indicating the start date, anticipated end date, and severity of illness. The physician's registration # and business stamp are required.
- *Note: If an end date of "ongoing" is specified, the medical note will be assumed to cover a period of **two weeks**. If no end date / an "unknown" end date is specified, the note will be assumed to cover a period of **three business days** (starting from illness start date.)*

For missed **TERM TESTS** due to **ACCESSABILITY REASONS:**

- Meet with your **AccessAbility consultant** and have them email Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) detailing accommodations required.

For missed **ASSIGNMENTS** due to **ACCESSABILITY REASONS:**

- If your desired accommodation is **within the scope** of your Accommodation Letter (ex. your letter includes "extensions of up to 7 days" and you need 1-7 more days), email the Request for Missed Term Work Accommodations form ([uoft.me/PSY-MTW](http://uoft.me/PSY-MTW)) to Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)), and attach a **copy of your letter**. Specify how many days extension you are requesting in your email.

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- If your desired accommodation is **outside the scope** of your Accommodation Letter (ex. your letter includes “extensions of up to 7 days” but you need more time than that) you will need to meet with your **AccessAbility consultant** and have them email Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) detailing the accommodations required.

For missed **ASSIGNMENTS or TERM TESTS** in **OTHER CIRCUMSTANCES**:

Email the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>) form to Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)), along with:

- For the **death of a family member/friend**, provide a copy of the death certificate.
- For U of T varsity-level or professional **athletic commitments**, an email from your coach or varsity administrator should be sent directly to Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **well in advance** of the missed work, detailing the dates and nature of the commitment.
- For **religious accommodations**, please email Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **well in advance** of the missed work.
- For circumstances **outside of these guidelines**, please email Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **on or before the date of the test / assignment deadline** to describe your circumstances and determine appropriate documentation.

Documents covering the following situations are NOT acceptable: medical prescriptions, personal travel, weddings, personal/work commitments.

As stated above, your documents must be submitted **within three (3) business days** of the deadline for the missed work.

#### **After submitting your documentation:**

Within approximately one to five business days, you will receive a response from your instructor detailing the accommodations to be made (if any).

**You are responsible for checking your official U of T email and Quercus course announcements daily, as accommodations may be time-critical.**

You should continue to work on your assignments to the best of your ability, as extension accommodations may be as short as one business day, depending on the nature of the illness/emergency.

If an accommodation has been granted but you are unable to meet the conditions of the accommodation (ex. you need a longer extension, or you missed a make-up test), you will need to repeat the missed term work procedure and submit additional forms to request further accommodation. Note that in the case of a missed make-up test, an opportunity to write a second make-up test may not be provided.

Completion of this form does NOT guarantee that accommodations will be made. The course instructor reserves the right to decide what accommodations (if any) will be made. Failure to adhere to any aspect of this policy may result in a denial of your request for accommodation.

#### **Missed Accommodations**

If an accommodation is granted but a continued illness/emergency prevents you from meeting the requirements of your accommodation, you must repeat the missed term work procedure to request additional accommodations.

(E.g.) If you miss a make-up midterm, you would need to submit another Request for Missed Term Work Accommodations form. If your original medical note / documentation included the date of the make-up midterm, then only the Request form is required. If the date of the make-up midterm fell outside of the

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dates indicated on your original medical note/other documentation, then a new medical note/other appropriate documentation must also be submitted.

**Importance of Three Business Day window:**

If you are unable to submit your documents within the three business day window, **you must email Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) within the three business day window** to explain the nature of the delay, and when you will be able to provide your documents. Exceptions to the documentation deadline will only be made under exceptional circumstances.

**NOTE: Assignments due at end of term**

Instructors cannot accept term work any later than five business days after the last day of class. Beyond this date, you would need to file a petition with the Registrar's Office (<https://www.utoronto.ca/registrar/term-work>).

**NOTE: Final Exams**

This policy applies only to missed assignments and term tests. Missed final exams are handled by the Registrar's Office (<http://www.utoronto.ca/registrar/missing-examination>).

## **7. Student Resources**

**A) AccessABILITY Services:** Students with diverse learning styles and needs are welcome in this course! In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach your instructors and/or the AccessAbility Services as soon as possible. AccessAbility Services staff (located in Rm SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca). The sooner you let us know your needs the better we can assist you in achieving your learning goals!

**B) Writing Centre:** The UTSC Writing Centre works with students at all stages of assignment development: from brainstorming and developing an outline to constructing introductions, body paragraphs and conclusions, to citation, referencing, editing, and proofreading. They offer individual consultations as well as writing groups, workshops, and clinics. Please see the website for more details: <https://www.utoronto.ca/twc/one-one-tutoring>.

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