NROD60H3S: Current Topics in Neuroscience
Physiology of Learning and Memory

University of Toronto Scarborough, Winter 2022 edition
Tuesday 3:00 – 5:00 PM EST
Instructional Centre 230 & synchronous Zoom

Instructor: Robert Rozeske
Office: Science Wing 627A
Office hours: Thursday 3:00 – 5:00 PM EST
Email: robert.rozeske@utoronto.ca

LECTURE DELIVERY

Classes will be held synchronously over Zoom until at least January 31, 2022
https://utoronto.zoom.us/j/82181993542
Meeting ID: 821 8199 3542
Passcode: 537499

COURSE DESCRIPTION

Our experiences not only determine who we are, but also who we will become. The brain is a repository of past experiences, a driver of behaviour, and a powerful predictor. As a predictor, the brain evolved to maximize our survival by compiling our experiences in an ordered fashion across time and using this catalogue of events, it guides future behavior. This process is known as learning and memory. A defining feature of an episodic memory is that it occurred in a specific place. Yet, 'place' is an abstract concept, so it does not exist in the physical world. We will learn how the brain creates spatial representations, or cognitive maps, that serve as a stage for our memories. Furthermore, we will explore how the brain encodes a diversity of social, fear, and habit memories. We will focus on research articles that use *in vivo* techniques in animal models during memory tasks, which will provide a foundation to understand neural mechanisms of memory in humans. Together we will examine the dynamic relationship of neural activity and behaviour, and how these experiences are encoded by the brain to guide behaviour.

COURSE OBJECTIVES

-Understand of how specialized neurons in the hippocampal formation generate spatial representations, or cognitive maps, that are the essential building-blocks of an episodic memory

-Become familiar with widely used *in vivo* recording (electrophysiology and calcium imaging) and manipulation (optogenetics and chemogenetics) techniques in neuroscience

-Understand how *in vivo* neural activity across multiple brain regions interact to support learning, strengthening, and retrieval of a diversity of memory types

-Become adept at searching for primary research articles and critically analyzing the scientific narrative of the authors to determine if the experiments support their conclusions

-Improve scientific communication skills through group presentations, reviewing grant proposals, and writing an original grant on the physiology of learning and memory

-Confidently engage in productive classroom discourse by listening to others, formulating ideas that build upon previous comments, and sharing a perspective that propels the discussion narrative forward

-Hone intellectual self-defense skills so that the endless amount of information confronted daily, both inside and outside the classroom, is interpreted using a critical lens

WORKLOAD AS PERCENTAGE OF FINAL GRADE

1. Presentation:	35%	(10% background; 20% papers; 5% discussion)
2. Participation:	15%	(8% classroom; 7% Perusall)
3. Grant proposal:	35%	(2% rationale; 8% objectives; 25% final)
4. Peer review of grant proposal:	15%	

WORKLOAD DETAILS

1. Presentation (total 35%): Various due dates

Each week, a research topic in the subfield of physiology of learning and memory will be presented by a group of approximately three students. The group PowerPoint presentation will consist of three parts: (1) a thorough background of the subfield topic, (2) an in-depth analysis of research articles related to the subfield and (3) a discussion that synthesizes the papers into a digestible take-home message. Except for extenuating circumstances, all group members will share the same grade on the presentation. This is an opportunity to learn how to work cooperatively in a group by sharing ideas and responsibilities. Once the presentation group is set, I encourage group members to decide how they will communicate with each other and distribute the responsibilities equally. As the group prepares their presentation, be respectful of your group members by giving everyone a voice and including them in the process.

Each topic has one review paper, one older foundational article, and two recent articles. To ensure that each group member has a prominent speaking role during the presentation, I suggest that one member presents the background that integrates the review & foundational papers, and the other two group members each present a recent paper. However, I highly encourage groups to collectively create and edit the content of the PowerPoint presentations. The responsibilities for leading the class Discussion can be divided among members as the group sees fit. If irreconcilable differences arise during presentation preparation, please contact me as soon as possible, and prior to the presentation date.

Topic selection (0%): On the first day of class I will provide an overview of each topic. PDFs of assigned papers for each topic are located on Quercus in the Files section. Review the papers in the folders and at the end of class visit the interactive document on Quercus in the Pages section called "Sign-up for Presentation Topic". Select your topic by typing your name in one of the student columns on the right side of the table. Topics are selected on a first-come, first-served, basis. If you do not select a topic before **11 January at 11:59PM EST**, a topic will be assigned to you.

Background (10%): For each weekly subfield topic, a PowerPoint presentation lasting 20-25 minutes will be given to introduce the class to your subfield. The assigned review paper will provide a template for the history, theory, and methods necessary to understand the topic. Establish for the class how this subfield is related to general theories of learning and memory. How is this subfield informed by *in vivo* neurophysiology? Does the cognitive map have a role? What are the central hypotheses in the subfield?

What were the seminal studies? Is research in this subfield relevant to human populations? This portion of the presentation should integrate the assigned older foundational article for ~10 minutes of the allotted time. Explain how this older publication helped to pave the way for the most recent investigations in this subfield. You will be assessed on how well you construct a scientific narrative of the subfield, which will serve as a smooth jump-off point for the presentations of the recent papers.

Papers (20%): Each topic has two recent research articles. Each article should be presented in a PowerPoint presentation lasting 20-25 minutes. Remember, the Background presentation was just delivered, so an in-depth review of the foundational motivation of the article is not required. Moreover, your classmates have read these articles in preparation for class, so you do not need to explain every little detail. Rather, your presentation should address the following:

(i) Motivation: What did the scientists view as an interesting and unsolved phenomenon? What is their hypothesis and how does it fit into the theory of this subfield? What knowledge gap will they fill?

(ii) Results: For each main figure you should: (a) describe the question that motivated the experiments that were performed. (b) what techniques were used, what analysis methods were applied to address the question? (c) when considering all of the figure's panels, what was the final message of the figure?

(iii) Limitations: Consider the dependent variables, were the scientists actually measuring what they intended to measure? Were all critical control groups present? Were the data analysis techniques appropriate? Did the experiments create a logical scientific narrative? Are the paper's conclusions appropriate, are they truly supported by the data?

(iv) Perspectives: How does this paper change the way we think about the subfield? Are the results in conflict with existing findings? What future experiments does this paper inspire?

In the Files section of Quercus, I uploaded a PDF "How to read a scientific article" that may be helpful. When preparing your presentation, look at Perusall to see what your peers are struggling to understand and integrate this information in your slides. You will be assessed on your understanding of the paper's methods, scientific narrative, clarity of explanation, and ability to field questions from your peers.

Discussion (5%): After the Background and Papers presentations, your group will lead a class discussion on your topic lasting 15-20 minutes. The group has the liberty to structure the Discussion as they see fit. The task is to engage the class to examine the topic at a high intellectual level. One possibility is to consider exciting future experiments in this subfield. Or, how the articles relate to human memory and navigation disorders. This may require that you read other papers related to your subfield.

The three sections of the presentation will be assessed by the following criteria: organization of content, accurate presentation of facts, identification of the key points in the articles, critical analysis of the implications of the articles, ability to field questions, and engagement of your classmates during the Discussion. To ensure there are no technical delays, please submit your group's PowerPoint files to me via email prior to the start of class.

2. Participation (total 15%): Every class & each Tuesday by 2:59PM EST on Perusall

Classroom (8%): As a seminar course, the objective is to discuss everyone's questions, needs for clarification, criticisms, and perspectives on research articles. Since research articles are composed of several figures that build upon one another to create a scientific narrative, it is critical to have a clear

understanding from the outset, otherwise you will be quickly lost. Even if you believe your question to be obvious or unsophisticated, ask it. To generate a situation where curiosity conspires with theory to create interesting speculations and plausible scientific ideas, it is essential to maintain a professional and courteous demeanor during class. Although we will create a safe space for discussion, it does not mean that we cannot disagree with each other. Remember, what drives an interesting discussion is a common thread that considers and integrates previous comments. Whether or not you agree with your classmates, listen to them, build upon their comments, consider how you can link your idea to your peer's ideas.

Finally, to discuss weekly articles, you are expected to attend all classes. Your participation grade will reflect the frequency and quality of your classroom contributions. While using Zoom, you can raise your virtual hand and use your microphone, or ask questions in the chat. The best strategy to ensure active participation is to read the assigned articles and come to class prepared to discuss.

Perusall (7%): To encourage reading of the assigned articles before class, students will be required to annotate articles using Perusall. This software provides an interactive platform for classmates to virtually interact in the context of the assigned readings. Each week the class will be assigned the four required articles of that week's topic. For each of the four articles, you will be required to provide at least four annotations per article. Annotations can take the form of questions that you post or answering a question from an existing conversation thread. Not all annotations are created equal, so I have provided guide in the Files section of Quercus called "General Thoughts on Perusall Annotations" that will explain how annotations will be assessed. Perusall is being used because primary research articles are dense, and this software provides a virtual space for classmates to collectively work through challenging topics, techniques, and experiments. Students will be split into two article annotation groups on Perusall. You are not required to annotate the articles associated with your class presentation. All annotations are due each week on **Tuesday by 2:59PM EST**.

To access Perusall, use this link: https://app.perusall.com/home. Sign up for an account and follow the account confirmation directions. Once confirmed, enter the course code: ROZESKE-WLL4P . Perusall contains several functions that you will not be required to use for class, but might find useful (e.g., private notetaking for articles). This link provides the step-by-step process for account setup and use: https://support.perusall.com/hc/en-us/articles/360033995074-Getting-started

3. Grant Proposal (total 35%): Various due dates

Grants are the bread and butter of scientists. Mention the word "grant" to any research professor and they will tell you that they recently submitted one, or are currently writing one. Scientists are perpetually writing grants because research is expensive and securing funding is a competitive process. The ability to write a clear, exciting, and compelling research grant is a scientist's most valuable skill. For this writing assignment you will write a grant that follows the format of the Natural Sciences and Engineering Research Council of Canada (NSERC). This federal agency awards research funds for five-year projects via the Discovery Grant funding mechanism (https://www.nserc-crsng.gc.ca/ResearchPortal-PortailDeRecherche/Instructions-Instructions/DG-SD_eng.asp). With thousands of dollars at stake, grant proposals are reviewed by a panel of three researchers in your general field of study. Your goal is to convince them that your exciting new experiments will create a step-change in the field. To convince your reader, you must communicate the following throughout various sections of your grant:

1. What is your research question and why is it significant?
    a. Explain what you are interested in studying and the hypotheses or predictions that stem from your question. Why spend money to study it (e.g. public health, etc.)?

    b. To develop a fundable grant, you must walk the line between an over-the-top almost impossible hypothesis that would radically change how we think about the brain and a so-overly-obvious hypothesis that it is practically already in textbooks and there is nothing further that is exciting to explore.
2. What is the theory or prediction in the subfield, and where are the knowledge gaps?
    a. Connect your research question to theories in your field. Where do existing theories fall short? Will your hypothesis disprove a central prediction from a theory in the field? Will it confirm a theory in the field?
    b. You are solving a puzzle that is either going to confirm a theory's prediction or break a theory and establish a new one. Your job is to provide an adequate background so that your reader clearly understands where there are gaps in scientific knowledge.
3. What is your approach to address the knowledge gaps?
    a. You will propose two to three specific aims that contain multiple experiments to address the knowledge gaps. A major aspect of writing a successful grant is to propose an exciting set of experiments that specifically, and cleverly, address the knowledge gap.
    b. Explain the methodology you will use to fill the knowledge gap (e.g. record 1000s of hippocampal parvalbumin interneurons in a transgenic mouse with *in vivo* calcium imaging during zero-gravity maze task on a SpaceX flight).
    c. Pre-emptively anticipate questions or criticisms of the reviewers by explaining the data analysis strategy, how experimental results will be interpreted, and additional strategies if technical issues arise.
4. How will the results of your experiments fill the knowledge gaps and push the field forward?
    a. Describe the impact and the big-picture implications. Research is not an island; link your potential results with existing publications and explain how it will advance knowledge.

Your grant proposal can investigate any question in the broad field of learning and memory. Imagine you have access to all the techniques and resources that we have discussed during this course. The goal is to synthesize what you have learned about *in vivo* recording and manipulations of defined neural circuits to write an original grant. Although a grant's audience are neuroscientists, it is unlikely they are specialists in your subfield. This means your reader is informed but may not use the same research techniques as you (e.g., neurophysiology of hippocampal somatostatin interneurons during fear vs. expression of proinflammatory cytokine mRNA in the hippocampus after stress). Your task is to articulate your ideas to an informed population of scientists with a clear and simple narrative. This writing project is divided into three stages that will provide you feedback to improve your grant throughout the semester.

Rationale and hypothesis (2%): due 01 February by 11:59PM EST
Provide a summary of your proposed research project. What is the prevailing theory in the field? How does your hypothesis relate to the subfield's theory? What is your rationale for suggesting this hypothesis? Remember, theories are only useful if they generate clear, testable predictions. I will provide feedback on the feasibility of your proposal. Submit your one to two paragraph Word file on the Quercus assignment "Grant Proposal: Rationale & hypothesis". Late submission will be accepted, but with a 10% reduction penalty for every day late.

Objectives (8%): due 01 March by 11:59PM EST
In this section you provide the reader with two to three specific aims you designed to test your hypothesis. You will begin by writing a paragraph that provides the reader with an abbreviated, but sufficient background, to understand why you will perform these specific aims. For each of your aims, describe in a few sentences the experiments you are planning. I will provide feedback on the feasibility

of your objectives. Submit your Word file on the Quercus assignment "Grant Proposal: Objectives". Late submission will be accepted, but with a 10% reduction penalty for every day late.

Grant proposal for peer review (0%): due 22 March by 11:59PM EST
Your grant proposal must adhere to the following formatting guidelines. The length is a maximum of eight double-spaced pages, not including the reference section. In Word, use Times New Roman font size 11 with 2.54 cm (1") margins. As per the NSERC guidelines website, your submission must have the following sections:

Project title: One short and descriptive sentence that communicates the substance of your proposal.

Overview: Here you provide the background and rationale that is motivating the entire grant. This is like an abstract in a research paper and is the first section your referees will read. It should be clear, exciting, and compelling. In one to two paragraphs summarize your grant in lay terms and broadly describe the methods and deliverables of your specifics aims. This section will typically have five references.

Objectives: You will begin by writing a paragraph that provides the reader with an abbreviated, but sufficient background, to understand why you will perform these specific aims. Then list the aims one by one. Each aim should be one sentence long and succinctly capture the goal of that aim. After listing the aims, write a paragraph that describes the valuable information that will come from completion of these aims. Also describe the big-picture implications of these aim and how their completion fits into your long-term goals as a researcher. Finally, describe what completion of these aims will provide to the research community. This section typically has five references.

Literature review: As your reader may not be in the same subfield as you, this section should provide them with enough background to understand the theory, brain regions, cell types, techniques, etc. that are directly relevant to your specific aims. This section should highlight how your specific aims relate to the most recent publications in the field. Remember, in a grant you are making the case that funding your proposal will create breakthroughs that push the boundaries of current knowledge. This section should be one to one-and-a-half pages long and include at least 10 references that are not review papers.

Methodology: As the NSERC website aptly states, "Describe the methods and proposed approach, providing sufficient details to allow the reviewers to assess the feasibility of the research activities." This section is typically broken down by specific aim. For each specific aim, describe in separate sub-sections the rationale, experimental approach, and feasibility for that aim. In the rationale sub-section, explain why you chose these particular experiments and methods for this aim. In the experimental approach sub-section explain your experimental and data analysis methodology with enough detail that your reviewer understands the methods and the control/experimental groups. For the feasibility sub-section, describe potential pitfalls or data interpretation issues, and your strategy to address them if they arise.

Impact: In this section you make the final case to reviewers why your proposal should be funded. Emphasize the novelty of the experimental approach and how the results will change the trajectory of your research field and advance the natural sciences. It is also appropriate to discuss how results from this grant will inform clinical practice in human populations and potentially lead to novel therapeutics or medical devices.

References: In text citations must follow the formatting style used by the journals Nature or Science (for an example, refer to an assigned paper published in one of these journals). A reference manager is highly encouraged because it will save you time and make your life easier. Reference managers organize all

your citations within your text and insert a formatted and chronological bibliography at the end of the document. There are two free references managers. One is Mendeley, which seamlessly integrates into Word. The other is Paperpile, which can be used with Google Docs. Paperpile requires one additional step of converting your Google Doc to a Word file before submitting your final grant proposal.

This nearly finalized draft will be submitted on Quercus assignment "Grant proposal: Proposal for peer review". As this is a double-blind anonymous review process, do not write your name or identifying information on your grant proposal. You will not receive a grade for this version of your grant, but a more polished version of your grant is likely to receive more valuable feedback from your peer. Late submissions will result in a 10% reduction per day applied to your final grant submission.

Final grant proposal (25%): due 05 April by 11:59PM EST
After receiving anonymous feedback from your peer, integrate their comments as you see fit and finalize the grant proposal for submission to me. The final grant proposal will be submitted through Quercus assignment "Grant Proposal: Final Version" and assessed by Ouriginal. Late submission will be accepted, but with a 10% reduction penalty for every day late.

Grants will be assessed by adherence to formatting guidelines, depth of background described in the literature review, novelty of hypothesis and specific aims, understanding of the methods proposed, grasp of the theoretical implications of the results, appropriate/accurate references, and clarity of writing. In a grant, the merit of the scientific idea is as important as the clarity in which you describe it. If your writing is poor and incoherent, your reader will not be able to grasp your brilliant idea.

4. Grant Proposal peer review (15%): due 29 March by 11:59PM EST

Before a grant is submitted to a private or federal granting agency it has been pored over by several scientists and is ultimately a product of a team effort. In the same spirit, each student will be assigned a peer's grant to review, which will advance the clarity and rigor of the proposal. The peer review process will be double-blind and administered on Quercus. By 23 March you will be able to access the grant that was assigned for your review. In the Quercus assignment "Grant Proposal: Proposal for peer review" you will find on the right-hand side a link to the proposal you will review (a tutorial can be viewed at https://community.canvaslms.com/videos/1133). Do not annotate the grant proposal on Quercus; the grant review you write will be given to your peer in a separate document (details below). Your review will follow the model used by several granting agencies that requires the referees to include:

Summary: In three paragraphs, provide your understanding of the author's experimental rationale, hypothesis, objectives, and the methodology. Here you legitimize that you understood the grant.

Strengths & Weaknesses: In two separate sections, provide feedback on which aspects of the grant were the most compelling and the aspects that could be improved. In the Strengths section, comment on what you found to be the highlights of the grant. It could be the solid theoretical grounding, thorough literature review, clarity of writing, experimental methods, and/or data analysis strategy. In the Weaknesses section, provide constructive suggestions for how the proposal can be improved. Ask yourself, "Am I excited about this grant? Do the proposed experiments specifically address a knowledge gap in the field? Are the techniques used appropriately?" Your comments for improvement could range from adding missing control groups, adopting a different behavioural task, recording from a more specific neuronal subtype, using a different neural perturbation method, etc. As you craft your peer review, remember the hours of work that you sunk into your own grant proposal; provide honest criticism, but take care to be

constructive in your tone. Your goal is to guide the writer on how they can elevate their grant to perfection, not to crush their spirit.

Submission guidelines: The length of the peer review should be two double-spaced pages. In Word, use Times New Roman font size 11 with 2.54 cm (1") margins. Include the title of the grant proposal in the header section of your peer review. Submit your review on Quercus assignment "Peer Review: Peer review of grant proposal" and Ouriginal. Late submissions will be penalized 10% per day. By 30 March I will send each student their reviewed grant so the peer review comments can be integrated into the final grant proposal. Importantly, the anonymous feedback you receive from your peer on your grant will not factor into the overall grade that you receive for your grant proposal.

COURSE SCHEDULE

WEEK	DATE	TOPIC	ASSIGNED READINGS	DUE
01	11 JAN	Course introduction	Syllabus	Sign up for topic
02	18 JAN	The hippocampus in memory and space I	Reviews: Milner et al 1998, Colgin et al 2008; Lisman et al 2017.	
03	25 JAN	The hippocampus in memory and space II		
04	01 FEB	Hippocampal replay	Wilson et al. 1994; Girardeau et al. 2014; Fernandez-Ruiz et al. 2019. Review: Joo et al. 2018.	Grant rational & hypothesis
05	08 FEB	Memory allocation	Guzowski et al. 1999; Ramirez et al. 2013; Yiu et al. 2014. Review: Josselyn et al. 2020.	
06	15 FEB	Systems consolidation	Frankland et al. 2004; Goshen et al. 2011; Kitamura et al. 2017. Review: Takehara 2020.	
	22 FEB	Reading week	No class	
07	01 MAR	Fear memory	Phillips et al. 1992; Herry et al. 2008; Krabbe et al. 2019. Review: Duvarci et al. 2014.	Grant objectives
08	08 MAR	Social memory	Maaswinkel et al. 1996; Hitti et al. 2014; Oliva et al. 2020. Review: Piskorowski et al. 2018.	
09	15 MAR	Ventral hippocampus	Kjelstrup et al. 2002; Jimenez et al. 2020; Ciocchi et al. 2015. Review: Dong et al. 2010.	
10	22 MAR	Hippocampal dopamine	Gasbarri et al. 1996; McNamara et al. 2014; Takeuchi et al. 2016. Review: Duszkiewicz et al. 2019.	Grant proposal for peer review
11	29 MAR	Habit learning	Packard et al. 1996; Barnes et al. 2005; Yin et al. 2009. Review: Lipton et al. 2019.	Peer review of grant proposal
12	05 APR	Closing remarks		Final grant proposal

COURSE MATERIALS

The assigned reading materials for this course are primary research papers and review articles. The weekly topic will have one review article, one foundational research paper, and two recent research papers. Often, the recent research papers will have supplementary files in addition to the main article. These materials are available on Quercus in the Files section. All students are expected to read all the assigned articles for each week's topic before class. Evidence that you have read the assigned articles will be determined by in class participation and Perusall activity (see *Participation* for details).

COURSE POLICIES

Email: All correspondence should be sent from a UofT email address to the instructor's email address listed on the first page of the syllabus. Please use professional email etiquette as outlined in the document "General Thoughts on Email Etiquette" that is available in the Files folder on Quercus.

Video and audio recording: For reasons of privacy as well as protection of copyright, unauthorized video or audio recording in classrooms is prohibited. This is outlined in the Provost's guidelines on *Appropriate Use of Information and Communication Technology*. Note, however, that these guidelines include the provision that students may obtain consent to record lectures and, "in the case of private use by students with disabilities, the instructor's consent must not be unreasonably withheld."

Copyright of lecture material: As protection of copyright, unauthorized copying, use, or uploading onto the internet of any of the lecture slides, handouts, or course materials produced by Professor Rozeske is strictly prohibited.

Contesting a grade: Re-grade requests will only be considered within two weeks of the grade being received. These will only be considered if adequate written justification is provided by the student. If granted, re-grading will consist of re-evaluation of the complete assignment, potentially leading to a change in the grade in either direction, i.e. a grade increase, no change, or decrease. Requests without a solid rationale will not be considered (e.g. I need a higher grade to boost my grade PA).

Classroom conduct: Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person or online. Professional courtesy, respectful language, and sensitivity will help to create a welcoming and safe learning environment for everyone. Students are expected to participate in class discussions and resist the temptation to use their mobile device or laptop to engage in non-course related activities.

Attendance: Related to participation is your attendance in class. Class attendance and punctuality are required. Understandably, in certain circumstances tardiness cannot be avoided, but please be on time. Habitual tardiness demonstrates a lack of respect for the entire class as it disrupts the flow of the lecture and discussions. As the adage goes, "to be early is to be on time, to be on time is to be late". Lastly, you are expected to bring the required readings (digital or hard copy) to class. If you are unable to attend class, refer to the Psychology Department Missed Term Work Policy outlined in this syllabus. An unexcused absence will result in a 0% for class participation that day.

Office hours: Students are encouraged to attend office hours if they want to discuss the course content, their grant proposal, their presentation, and their performance in class. Students are also welcomed to attend office hours if they would like guidance on how they can become involved in neuroscience beyond the classroom. In light of the COVID-19 pandemic, office hours will be held virtually over Zoom

until further notice. Contact me to book an appointment on Thursdays from 3:00 – 5:00PM EST. If this period is fully booked, we can discuss alternative times.

Vaccine and mask mandate: All UTSC faculty, staff, and students must be vaccinated or have a university approved exemption to be on campus. Proof of vaccination or exemption must be uploaded directly to UCheck https://www.utoronto.ca/utogether/ucheck. In additional to uploading poof of vaccination or exemption, faculty, staff, and students must also complete UCheck's Self-Assessment every time they come to campus to confirm they do not have COVID symptoms and that they have not been in contact with a positive COVID case. Masks will be required indoors, including classrooms. Students may not remove their masks to eat or drink in class. Faculty are not under any obligation to continue lecturing if students are not complying with mask requirements.

GRADING SCALE & DEFINITIONS

https://advice.writing.utoronto.ca/general/grading-policy/

PERCENT	LETTER	GRADE 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	*Excellent*
80-84	A-	3.7	*Excellent*
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	*Good*
70-72	B-	2.7	*Good*
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	*Adequate*
60-62	C-	1.7	*Adequate*
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	*Marginal*
50-52	D-	0.7	*Marginal*
0-49	F	0.0	*Inadequate*: Little evidence of even superficial understanding of subject matter; weakness in critical and analytical skills; limited or irrelevant use of literature.

PSYCHOLOGY DEPARTMENT MISSED TERM WORK POLICY, WINTER 2022

For missed term work (assignments and term tests) due to illness, emergency, or other mitigating circumstances, please follow the procedures outlined below.

- The following reasons are not considered sufficient for missed term work: travel for leisure, weddings, personal commitments, work commitments, human error.
- Missed Final Exams are handled by the Registrar's Office and should be declared on eService: http://www.utsc.utoronto.ca/registrar/missing-examination
- 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.utsc.utoronto.ca/registrar/term-work

Accommodations for Illness or Emergency:

For missed work due to ILLNESS OR EMERGENCY, complete the following **three-step** process:

1. Complete the Request for Missed Term Work Accommodations Form
2. Declare your absence on ACORN (Profile & Settings > Absence Declaration)
3. Email both the Request for Missed Term Work Accommodations Form **AND** a screenshot of your Self-Declared Absence on ACORN to the email address provided by your instructor on the course syllabus **WITHIN 2 BUSINESS DAYS** of the missed work.

Note: If you are unable to submit your documents within 2-business days**, you must still email your instructor within the 2-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: For this semester, we do not require any additional supporting documentation (e.g. medical notes) to support your missed term work accommodation request.

Accommodations for Academic Conflicts:

For missed term work due to an ACADEMIC CONFLICT (i.e. two midterms scheduled at the same time), please complete the following process:

1. Complete the Request for Missed Term Work Accommodations Form, choosing "Other" and explaining the conflict in the space provided.
2. Take screenshots of your course homepages that demonstrate the conflict.
3. Email the form and screenshots to your course instructor **at least two weeks (10 business days) before the date of the activity,** or as soon as possible if it was not possible to identify the conflict earlier.

Note: Multiple assignments due on the same day are not considered conflicts. Accommodations may only be possible in the case of quizzes and tests that are both scheduled during the same discrete period. Back-to-back tests/quizzes are not considered conflicts.
Note: Students are responsible for keeping their course timetables conflict-free. Students who choose to register in two synchronous courses with overlapping lecture/tutorial/lab schedules will not be accommodated.

Accommodations for Religious Conflicts:

For missed term work due to a RELIGIOUS CONFLICT, please complete the following process:

1. Complete the Request for Missed Term Work Accommodations Form, choosing "Other" and noting "Religious conflict" in the space provided.

2. Email the form to your course instructor **at least two weeks (10 business days) before the date of the activity,** or as soon as possible if it was not possible to identify the conflict earlier.

Accommodations for Students Registered with AccessAbility Services:

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

- **Contact your AccessAbility consultant** and have them email your instructor detailing accommodations required.

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

- If your desired accommodation is **within the scope** of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" and you need 3 days):
    1. Complete the Request for Missed Term Work Accommodations Form.
    2. Email the form and your **Accommodation Letter** to your instructor, specifying how many days extension you are requesting.
- If your desired accommodation is **outside the scope** of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" but you need more time than that):
    1. **Contact your AccessAbility consultant** and have them email your instructor detailing the accommodations required.

Accommodation Procedure:

After submitting your documentation, you will receive a response from your instructor or TA. This form does not guarantee that you will be accommodated. 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. **You are responsible for checking your official U of T email and Quercus course announcements daily**, as accommodations may be time-critical.

For missed assignments, **do not wait for an instructor response to resume work on your assignment.** Extension accommodations may be as short as one business day, depending on the nature of the illness/emergency. You should complete your assignment as soon as you are able and email it your instructor.

For an anticipated event (e.g. scheduled surgery or an illness with a prolonged recovery period), submit a Verification of Illness Form completed by your doctor, AND this form to your instructor if you would like to request accommodations in advance of the assignment deadline or midterm date.

Declare your future absence on ACORN (absences can be declared up to 14 days in the future).

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. **Please make it clear in your subject line that you are requesting a second accommodation.** For example, if you are given an extension but are still sick and need more time, or if you miss a make-up midterm, you must submit another request 'Missed Term Work Accommodations' form and declare your extended absence on ACORN. ***Note: In the case of a missed make-up test, an opportunity to write a second make-up test may not be provided.

ACCESSABILITY STATEMENT

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 free to approach me and/or the Accessibility Services as soon as possible. Accessibility Services staff (located in Science Wing room

SW302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

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 published in 2019 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 proof-reading. 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 whose services can be accessed through the Centre for Teaching and Learning at http://uoft.me/AcademicLearningSupport. 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 also available at the Centre for Teaching and Learning. 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.

PLAGIARISM DETECTION TOOL: OURIGINAL

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).