

Course Information

INSTRUCTOR INFORMATION:

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pronouns: she/her/elle)

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ACCOMMODATIONS COORDINATOR INFORMATION:

COURSE DETAILS:

Format: On campus
(3hr in-person seminar)

Lecture Times / Location: Information available via onQ

Drop-in Times / Location: Information available via onQ

Prerequisites: PSYC 221 Cognitive Psychology

Credits: 3.0

Course Description

“I believe in the future of AI changing the world. The question is, who is changing AI?”

– Dr. Fei-Fei Li

Professor of Computer Science at Stanford University
Co-Director of the Stanford Human-Centered AI Institute
Co-Founder of AI4ALL

From the advent of the internet to the increased availability of smartphones to the recent explosion of artificial intelligence, technology has undoubtedly become embedded into every aspect of our lives. Although these technologies are widely embraced as a means of improving, augmenting, and streamlining day-to-day behaviour, they raise intriguing questions about how our cognitive system resolves information in this new digital age.

This course will draw links between different cognition processes (e.g., perception, attention, memory, decision-making) and various technological innovations (e.g., video games, robotics, augmented reality, generative AI) to explore the symbiotic and often parasitic relationship that exists between the two. These links will allow us to meaningfully understand how our cognitive processes make sense of the digital age and how the digital age evolves to capitalize on our cognitive capabilities.

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1. Land Acknowledgement

Queen's University currently occupies traditional Anishinaabe and Haudenosaunee territory. We acknowledge this traditional territory to recognize its longer history as one that predates the establishment of the earliest European colonies and recognize its significance for the Indigenous Peoples who lived and continue to live upon it and whose practices and spiritualities are tied to the land and continue to develop in relationship to the territory and its other inhabitants today. Indigenous communities in Kingston / Katarokwi continue to reflect the area's Anishinaabe and Haudenosaunee roots, and there is significant Métis community and First Peoples from other Nations across Turtle Island present here today.

This land acknowledgement has been included in this syllabus not to absolve Queen's University of any of its prior and current wrongs, but to recognize that colonialism does not exist in the past or in a historical context. It is an ongoing process, and as members of the Queen's community, we have a responsibility to understand the longstanding history that has brought us to reside on this land and to build our mindfulness of our place within that history. As we continue to work towards justice in solidarity with Indigenous Peoples, and all those whose land, labour, and knowledge has been unjustly stolen or marginalized, I invite you to:

- Learn more about the final report of [Queen's Truth and Reconciliation Commission Task Force](#) detailing how members of the Queen's community can play an active role in relationship building, changing perspectives and policy, and promoting an awareness of the rights, histories, and contemporary issues of Indigenous Peoples.
- Explore the website [Stones Kingston](#) to learn about the various cultural communities that have been a part of the city and have contributed to its history over the years.

2. Statement on Equity, Diversity, & Inclusivity

The values of equity and diversity are vital to and in harmony with Queen's University's educational mission and standards of excellence. It acknowledges that direct, indirect, and systemic discrimination and violence exists within our institutional structures, policies, and practices and in our community. This discrimination and violence can take many forms and works to differentially advantage and disadvantage persons across social identities such as race, ethnicity, disability, gender identity, sexual orientation, faith, and socioeconomic status, among other examples.

In this course, it is my goal to ensure that all students across all backgrounds have an ideal learning experience where they feel heard, valued, respected, and welcome. I firmly believe that we are stronger and better equipped to solve problems when we work on them together, and I aim to promote an anti-discriminatory, anti-racist, and accountable environment during our time together. As such, I will not tolerate discrimination or violence of any kind against any member of the course, and I expect every student to show respect for every other member of the course.

3. Building our Community

Universities are a place to share, question, and challenge ideas. Each student brings a different set of lived experiences, and you are more than welcome to draw on your own experiences to guide your discussion. To create a respectful classroom community that will allow us all to learn from one another, please consider the following guidelines:

- Make a personal commitment to learn about, understand, and support your peers.
- Assume the best of others and expect the best of them.
- Recognize and value the experiences, abilities, and knowledge each person brings to the course.
- Acknowledge the impact of oppression on other people's lives and make sure your words and tone are respectful and inclusive.
- Encourage others to develop and share their ideas.
- Pay close attention to what your peers say / write before you respond. Think through and re-read what you have written before you post anything online or send your comments to others.
- Be open to having your ideas challenged and challenge others with the intent of facilitating growth.
- Look for opportunities to agree with one another, building on and intentionally referencing your peers' thoughts and ideas; disagree with ideas without making personal attacks, demeaning, or embarrassing others.

4. Contacting the Teaching Team

I am fully committed to supporting your success in this course and have implemented the following policies to increase efficiency and access to information:

- If you have a [question related to the course format](#), consult the syllabus as your first step. You may find that many of your questions can be answered this way.
- If you have a [question related to the course content](#), post this on the Discussion Board via onQ so that all students can benefit from the answer. I'll be monitoring these boards regularly and usually reply on weekdays within a 24-48hr timeframe. Since these boards are public, all students are encouraged to chime in with answers as a way of reinforcing your own understanding of the course.
- If you have a [question related to academic considerations or accommodations](#), reach out to our Accommodations Coordinator at their specific email.
- If you have a [question that applies to you specifically](#) or a [question that you would prefer to discuss privately](#), contact the Teaching Team at our respective emails and we will usually reply on weekdays within a 48-72hr timeframe. Ensure that you use your Queen's email address and include "PSYC420" in the subject line for a quicker response.

5. Course Materials

This course has no textbook. Instead, you will be assigned up to 4 readings each week that comprises of journal articles, tech papers, and popular science columns. The readings will all be related to the week's topic (see Course Timeline for a full listing). All of these readings are searchable online using common research skills that you have been trained in (e.g., Google Scholar, PubMed, author website, Google search). If you have difficulty, please reach out to other students on the Discussion Boards via onQ.

6. Course Learning Goals

There are five overarching learning goals for this course:

- 1 Identify and contrast the **various cognitive models & frameworks** that link the brain and behaviour for processes like attention, memory, and decision-making.
- 2 Outline the **history & evolution of digital technologies & software**, from Ada Lovelace's work on the Analytical Engine to Silicon Valley's work on Generative AI.
- 3 Construct links between **cognitive models & frameworks and digital technologies & software** to gain a deeper understanding of how human cognition unfolds in the digital world.
- 4 Describe the **ethical complexities that are borne from the digital age** and evaluate the role that cognitive scientists can play to account for bias, discrimination, and fairness for individuals, communities, and societies.
- 5 Develop depth in critical reading, thinking, analytical, and writing skills and demonstrate this **depth across academic and policy spheres**.

7. Course Assessment Methods

To evaluate your progress across the five overarching learning goals, the following assessment methods will be used during the course:

Assessment Method	Weighting	Due Dates
Weekly Seminar	-	-
Thought Questions	30%	Fridays at 4pm, before the scheduled lecture
Group Brainstorms	38%	Wednesdays at 11:30am, after the scheduled lecture
Policy Brief: Outline	10%	Friday, February 27 th at 4pm
Policy Brief: Final Report	20%	Friday, April 10 th at 4pm
Course Reflection	2%	Monday, April 13 th at 4pm
Feedback Activities	-	[As needed]

Weekly Seminar

Each week, we will meet on Wednesdays from 8:30am to 11:30am EST for our in-person seminars. Week 1 will provide an overview of the course with detailed explanations of its various components. Weeks 2 and 3 will detail specific aspects of cognition and the digital age that we will use as a foundation for the rest of the course. Weeks 4 to 12 will then focus on a particular cognitive process in the context of the technologies and software that we live with as a way of understanding human cognition in our current digital environment.

Each week, readings (e.g., journal articles, tech papers, popular science columns) will be assigned to facilitate your understanding of the topic being discussed. The reading schedule is included in the Course Timeline below. It is necessary that you complete the assigned readings before attending seminars to facilitate your understanding of the topic and aid in discussions in the group brainstorms. I also highly encourage you to not fall behind on the reading schedule since readings do build upon one another as the course progresses.

Your presence and participation in weekly seminars (through active engagement, class discussion, and group brainstorming activities) will contribute to the knowledge and skills you will develop in this course. Although you are expected to attend weekly seminars in person every week, **no marks will be provided for your attendance**. If you miss a seminar, I will assume it is for a good reason. However, do note that weekly seminars cannot be offered in a hybrid format, so if you do miss a seminar and want further insight into the topic being covered that week, I highly recommend reaching out to other students on the Discussion Board via onQ or identifying students in the course who can share their notes and thoughts with you.

Thought Questions [30%]

For Weeks 4 to 12, you will be asked to submit two sets of thought questions:

- About the Readings: You will submit one thought question per assigned reading for the topic of the week.
- About a News Article: You will find and submit one recent news article about the topic of the week and one thought question about the article.

This exercise is meant to help you individually reflect on the topic of the week and to make connections across the course. Thought questions can capture, for example, what you thought about the reading / news article, a theoretical question you had, a critique of the methods / analysis / framing used, a musing about a discussion point, or a possible future study idea. What you choose to focus on is up to you. Thought questions will be graded on your ability to demonstrate original thinking and analyze, synthesize, and evaluate the readings / news article.

Each thought question is meant to be brief (i.e., **2-3 sentences long**) and will be worth 30% of your final grade. There are a total of 8 weeks of Thought Questions for the course, and only your **best 6 grades out of a possible 8** will be counted towards your final grade.

Thought Questions will be submitted via onQ and will be due **Friday at 4pm prior to the weekly seminar** (e.g., thought questions for our Wednesday, February 4th seminar on “Divided attention & Media multitasking” will be due on Friday, January 30th).

Group Brainstorms [38%]

For Weeks 4 to 12, you will engage in a group brainstorming session to see how our perceptions and understanding of the digital technology or software being discussed that week is shaped by public discourse. To achieve this, you will be randomly paired with other students in the course and assigned to one of four “teams”:

- The Scientists: Your group will play the role of independent investigators who are interested in furthering our neurocognitive understanding of the digital technology or software being discussed. You will work as a team to generate a new study idea based on the readings and discussions that week and to convey why your study question is an important and timely one to answer. What you choose to focus on will be up to you and your group. The Experts and the Public will not know that you are unbiased, and you will only be known as “Research Team A / B”.
- The Lobbyists: Your group will play the role of strategic influencers who are interested in furthering the adoption of the digital technology or software being discussed, regardless of the costs. You will work as a team to generate a new study idea that will likely result in findings that support your viewpoint and to convince the public why your study question

is the only one that should be answered. What you choose to focus on will be up to you and your group. The Experts and the Public will not know that you are biased, and you will only be known as “Research Team A / B”.

- **The Experts:** Your group will play the role of the scientific and legal authority in topic of the week, and you will quiz both the Scientists and the Lobbyists to provide feedback and critique of the studies that they posed (e.g., feasibility, logistics, ethics, privacy).
- **The Public:** Your group will play the role of the general community, and you will need to judge the effectiveness of the studies from the Scientists vs. the Lobbyists, taking into account the questioning from the Experts, to collectively determine who had the most convincing message.

Once you have been assigned to your group, the Scientists and the Lobbyists will be given **15 minutes to brainstorm their idea**, while the Experts and the Public will use this time to discuss within their own groups what components will be important for them to focus on during the pitch. Then, the Scientists and the Lobbyists will each give a **5 minute pitch presentation** of their study proposals to the Experts and the Public. After this, the Experts will have **10 minutes to comment on and challenge** either team on their ideas and the Public will then weigh in on which pitch they found more compelling. Group brainstorms will be graded: (1) individually, based on your level of contribution to the group and (2) collectively, based on your ability to critically engage with the brainstorming session.

Group brainstorms will be worth 38% of your final grade and detailed instructions will be provided via onQ. There are a total of 8 weeks of Group Brainstorms for the course, and only your **best 6 grades out of a possible 8** will be counted towards your final grade.

Group Brainstorms will occur **during our weekly scheduled seminar time** (e.g., brainstorms for our Wednesday, February 4th seminar on “Divided attention & Media multitasking” will occur during the last 1 hour of seminar time).

Policy Brief: Outline [10%]

Within government, a policy brief is an official document that details an issue impacting society and proposes specific recommendations to address it. These briefs typically serve two goals: to assist policy makers by providing resources that allow them to make informed decisions and to educate the broader public about a topic they may not be familiar with. In this way, policy briefs are similar to short review papers but they have a particular point of view that they argue for.

In this course, you will be asked to apply the knowledge and skills that you have gained in critically assessing cognition in the digital age to write a policy brief. This will involve you proposing why you as a cognitive scientist would or would not regulate a specific digital technology or software. This regulation could be about whether a particular digital technology or software should be banned,

available for use, allowed in specific circumstances, or amended for better safeguards. For example, you could write a policy brief about why smartphones should be banned in classrooms, but keep in mind that you must focus your perspective from a neurocognitive framework (e.g., “smartphones can result in individuals dividing their attention, of which several studies show XYZ”).

On Week 7, you will be asked to submit an outline of your proposed policy brief as a way to reflect on the different components of your final report. The outline will ask you to:

- Identify a specific digital technology or software.
- Outline the cognitive processes that we use to resolve it.
- List the benefits, costs, and ethical considerations of this digital technology or software on how our cognitive processes function.
- Decide whether you would regulate any aspect of it.

The outline of your policy brief is meant to be a short summary (i.e., **1 page maximum**) and will be worth 10% of your final grade. Detailed instructions will be provided via onQ and feedback will also be provided to help you structure your final paper.

Your Outline will be submitted via onQ and will be due **before Friday, February 27th at 4pm** in order to give you sufficient time to craft your final report.

Policy Brief: Final Report [20%]

During the Final Exam Period, you will be asked to submit your final policy brief as a way to extrapolate your knowledge of the course topics into a policy setting. The final report will ask you to:

- Introduce a specific digital technology or software, detailing its history and evolution.
- Discuss the scientific evidence of how our cognitive processes resolve the use of this digital technology or software.
- Present an argument about the benefits, costs, or ethical considerations of this digital technology or software on how our cognitive processes function.
- Propose recommendations on whether you would regulate any aspect of it.
- Discuss why it is important and timely to do so.

Although it is expected that you would use your work from the outline to craft your final report, you are free to pick a different digital technology or software if you would like. The final policy brief is meant to be a full-sized report (i.e., **10 pages maximum, not including cover page and references**) and will be worth 20% of your final grade. Detailed instructions will be provided via onQ.

Your Final Report will be submitted via onQ and will be due **before Friday, April 10th at 4pm**.

Course Reflection [2%]

At the end of the course, as you decompress from the semester, it can be useful to reflect on the knowledge gained, skills developed, and learning process experienced across our weeks together, as a way of documenting your growth as a scholar. I often find that this long view helps crystallize what stood out most to you in the course and how you might use what you learned in the future. During the Final Exam Period, you will be asked to submit a course reflection on whether your perspective or understanding of cognition in the digital age has been changed, challenged, reinforced, or deepened in this course. I encourage you to think about whether you encountered any high points or challenging moments, and you can use this as a starting point for your course reflection. There are no right or wrong answers. What you choose to focus on is up to you.

The course reflection is meant to be a short summary (i.e., **150-250 words**). You will submit your reflection via onQ **before Monday, April 13th at 4pm**.

Feedback Activities

At various points over the course, I may ask you to take part in feedback activities, such as surveys or questionnaires. This feedback will give me a real-time sense for how things are progressing in the course, which I can use to clarify specific topics or improve the overall structure of the course for future cohorts.

All feedback activities are optional, so **no marks will be provided for your response**. You may submit your feedback online via onQ **when prompted**.

8. Course Assessment Flexibility

Assessment methods in this course have been designed with flexibility for academic consideration for all students:

- For the Thought Questions, students can take an additional 3 days to complete these assessments if required, with no need for academic consideration or accommodation. This 3-day “grace period” ends on Mondays at 4pm. In addition to the 3-day extension, there are 12 weeks of seminars, of which there will be 8 weeks where Thought Questions will be graded. In these instances, only your top 6 grades will count towards your final grade in the course. This allows for 2 weeks where, if the grace period is not sufficient, you do not need to submit work.
- For the Group Brainstorms, no grace period can be provided due to the interactive nature of these sessions. However, there are 12 weeks of seminars, of which there will be 8

weeks where Group Brainstorms will be graded. In these instances, only your top 6 grades will count towards your final grade in the course.



- For the Policy Brief, students can take an additional 3 days to complete these assessments if required, with no need for academic consideration or accommodation. This 3-day “grace period” ends on Monday, March 2nd at 4pm for the Policy Brief: Outline and Monday, April 13th at 4pm for the Policy Brief: Final Report.
- For the Course Reflection, no grace period can be provided due to the need for self-reflection after the final policy brief.

These flexible design features means that “Short term Requests for Academic Consideration” (submitted through the Faculty of Arts and Science portal without documentation) are not needed and long-term requests will be handled on a case-by-case basis, if needed.

9. Course Calendar

All important course dates have been highlighted on the calendar below, though please visit the [Faculty of Arts and Sciences Sessional Dates website](#) for all academic deadlines.

January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7	1	2	3	4	5	6	7				1	2	3	4
4	5	6	7	8	9	10	8	9	10	11	12	13	14	8	9	10	11	12	13	14	5	6	7	8	9	10	11
11	12	13	14	15	16	17	15	16	17	18	19	20	21	15	16	17	18	19	20	21	12	13	14	15	16	17	18
18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28	19	20	21	22	23	24	25
25	26	27	28	29	30	31								29	30	31					26	27	28	29	30		

 Weekly Seminar	 Thought Questions	 Group Brainstorm	 Policy Brief	 Course Reflection
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10. Course Timeline

Note: Our course timeline might be subject to change. In particular, we may need a short-term change to online seminars and/or substitutions or additions to the list of readings. Any changes will be announced well in advance during weekly seminars and via onQ. outcomes

#	Week & Topic	Readings
1	Jan 7 th Course Overview	<ul style="list-style-type: none"> • Welcome & introductions • Explanation of course content and assessment methods
2	Jan 14 th The Interconnectedness of Cognition	<ul style="list-style-type: none"> • Styles, E. A. (2005). Chapter 1: Introduction & Chapter 2: So what must be explained, and how can we find the answer. In E. A. Styles (Ed.), <i>Attention, perception, and memory: An integrated introduction</i> (pp. 1-24). New York, NY: Psychology Press. • Pessoa, L. (2022). From one area at a time to networked systems. In L. Pessoa (Ed.), <i>The Entangled Brain: How perception, cognition, and emotion are woven together</i> (pp. 1-14). Cambridge, MA: MIT Press. • Thiebaut de Schotten, M., & Forkel, S. J. (2022). The emergent properties of the connected brain. <i>Science</i>, 378(6619), 505-510.
3	Jan 21 st The Progression of the Digital Age	<ul style="list-style-type: none"> • SAP LeanIX (2025). Comprehensive history of AI. Published online at SAP LeanIX. Retrieved: https://www.leanix.net/en/wiki/ai-governance/history-of-ai. • Daniels, J. (2019). 'Colorblind' Artificial Intelligence Just Reproduces Racism. Published online at <i>HuffPost</i>. Retrieved: https://www.huffpost.com/entry/opinion-artificial-intelligence-policing-surveillance-taylor-swift_n_5c3eaa1de4b0922a21d9d704. • Costanza-Chock, S., Raji, I. D., & Buolamwini, J. (2022). Who Audits the Auditors? Recommendations from a field scan of the algorithmic auditing ecosystem. <i>Proceedings of the Conference on Fairness, Accountability, & Transparency</i>, 1571-1583.
4	Jan 28 th Sustained attention & Social media	<ul style="list-style-type: none"> • Ortiz-Ospina, E. (2019). The rise of social media. Published online at <i>OurWorldInData.org</i>. Retrieved: https://ourworldindata.org/rise-of-social-media. • Firth, J., et al. (2019). The "online brain": How the Internet may be changing our cognition. <i>World Psychiatry</i>, 18(2), 119-129. • Giraldo-Luque, S., Aldana Afanador, P. N., & Fernández-Rovira, C. (2020). The struggle for human attention: Between the abuse of social media and digital wellbeing. <i>Healthcare</i>, 8(4), 497.

5	Feb 4 th Divided attention & Media multitasking	<ul style="list-style-type: none"> • Drody, A. C., Pereira, E. J., & Smilek, D. (2025). Attention in our digital ecosystem: The five interactive components that drive media multitasking. <i>Psychonomic Bulletin & Review</i>, 32(6), 2454–2471. • Finley, J. R., Benjamin, A. S., & McCarley, J. S. (2014). Metacognition of Multitasking: How well do we predict the costs of divided attention? <i>Journal of Experimental Psychology: Applied</i>, 20(2), 158-165.
6	Feb 11 th Attentional resources & Autonomous vehicles	<ul style="list-style-type: none"> • Calder, S. (2023). Self-driving cars and buses: Your guide to the future of autonomous vehicles. Published online at <i>The Independent UK</i>. Retrieved: https://www.independent.co.uk/travel/news-and-advice/self-driving-cars-buses-autonomous-vehicles-b2413681.html. • Figalová, N., et al. (2024). From Driver to Supervisor: Comparing cognitive load and EEG-based attentional resource allocation across automation levels. <i>International Journal of Human-Computer Studies</i>, 182, 103169. • Sánchez-García, R., & Araújo, D. (2021). Driving in roundabouts: Why a different theory of expert cognition in social driving is needed for self-driving cars. <i>Journal of Expertise</i>, 4(1).
Feb 18 th Winter Reading Week – NO SEMINAR		
7	Feb 25 th – SEMINAR CANCELLED	
8	Mar 4 th Cognitive load & Online environments	<ul style="list-style-type: none"> • Skulmowski, A., & Xu, K. M. (2022). Understanding cognitive load in digital and online learning: A new perspective on extraneous cognitive load. <i>Educational Psychology Review</i>, 34(1), 171-196. • Fauville, G., et al. (2023). Video-conferencing usage dynamics and nonverbal mechanisms exacerbate Zoom Fatigue, particularly for women. <i>Computers in Human Behavior Reports</i>, 10, 100271.
9	Mar 11 th Analytical thinking & Fake news	<ul style="list-style-type: none"> • Pennycook, G., & Rand, D. G. (2021). The Psychology of Fake News. <i>Trends in Cognitive Sciences</i>, 25(5), 388-402. • Ecker, U. K., et al. (2022). The psychological drivers of misinformation belief and its resistance to correction. <i>Nature Reviews Psychology</i>, 1(1), 13-29. • Lutz, B., Adam, M., Feuerriegel, S., Pröllochs, N., & Neumann, D. (2024). Which linguistic cues make people fall for fake news? A comparison of cognitive and affective processing. <i>Proceedings of the ACM on Human-Computer Interaction</i>, 8, 1-22.

10	<p>Mar 18th Memory stores & Deep fakes</p>	<ul style="list-style-type: none"> • Liv, N., & Greenbaum, D. (2020). Deep Fakes and Memory Malleability: False memories in the service of fake news. <i>AJOB Neuroscience</i>, 11(2), 96-104. • Weikmann, T., & Lecheler, S. (2023). Visual disinformation in a digital age: A literature synthesis and research agenda. <i>New Media & Society</i>, 25(12), 3696-3713. • Rini, R., & Cohen, L. (2022). Deepfakes, deep harms. <i>Journal of Ethics & Social Philosophy</i>, 22, 143.
11	<p>Mar 25th Problem solving & Large language models</p>	<ul style="list-style-type: none"> • Dickson, B. (2021). Why we must be careful about how we speak of large language models. Published online at <i>VentureBeat</i>. Retrieved: https://venturebeat.com/ai/why-we-must-be-careful-about-how-we-speak-of-large-language-models/. • Orrù, G., Piarulli, A., Conversano, C., & Gemignani, A. (2023). Human-like problem-solving abilities in large language models using ChatGPT. <i>Frontiers in Artificial Intelligence</i>, 6, 1199350. • Wang, K. D., Burkholder, E., Wieman, C., Salehi, S., & Haber, N. (2024). Examining the potential and pitfalls of ChatGPT in science and engineering problem-solving. <i>Frontiers in Education</i>, 8, 1330486.
12	<p>Apr 1st Consciousness & Generative AI</p>	<ul style="list-style-type: none"> • Dehaene, S., Lau, H., & Kouider, S. (2017). What is consciousness, and could machines have it? <i>Science</i>, 358(6362), 486-492. • Ullman, S. (2019). Using neuroscience to develop artificial intelligence. <i>Science</i>, 363(6428), 692-693. • Aru, J., Larkum, M. E., & Shine, J. M. (2023). The feasibility of artificial consciousness through the lens of neuroscience. <i>Trends in Neurosciences</i>, 46(12), 1008-1017.

11. Grading Scheme

All assessment methods for this course are designed to reward your effort, promote your independent discovery, and encourage your growth as scholars. For each assessment method, you will receive a numerical percentage mark, with the final grade being derived by converting your numerical course average to a letter grade according to Queen’s Official Grade Conversion Scale:

Letter Grade	Average Range
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 and below

12. Academic Support

All undergraduate students face new learning and writing challenges as they progress through university: essays and reports become more complex; effectively incorporating research into writing becomes more important; the types of assignments become more diverse; managing your time and developing the skills you need to read and think critically gets more challenging. If you face any challenges in this course, I encourage you to contact Student Academic Success Services (SASS). SASS offers many different ways to receive support:

- Free online or in-person [appointments](#) to get personalized support on writing and academic skills from expert staff and trained peers.
- [Workshops](#) and [drop-in programs](#). SASS' [Events Calendar lists events coming soon](#).
- [Online resources](#) that provide strategies for academic skills and writing development at university.
- If English is not your first language, SASS has specific resources for [English as Additional Language students](#), including weekly programs and EAL academic skills appointments. You can meet on an ongoing basis with an EAL consultant to work on your academic writing, speaking, listening, and reading skills.

13. Academic Consideration for Students in Extenuating Circumstances

Academic Consideration is a process for the University community to provide a compassionate response to assist students experiencing unforeseen, short-term extenuating circumstances that may impact or impede a student's ability to complete their academics. This may include but is not limited to any extenuating circumstance (e.g., illness, bereavement, traumatic event, injury, family emergency, etc.), which is short-lived, begins within the term, and will not last longer than 12 weeks - see [Academic Consideration webpage](#) for details.

Each Faculty has developed a protocol to provide a consistent and equitable approach in dealing with requests for academic consideration for students facing extenuating circumstances. For more information, undergraduate students in the Faculty of Arts and Sciences should consult the Faculty's webpage on [Academic Consideration in Extenuating Circumstances](#) and submit a request via the [Academic Consideration Request Portal](#). Students in other Faculties and Schools who are enrolled in this course should refer to the protocol for their home Faculty.

Students are encouraged to submit requests as soon as the need becomes apparent and to contact the instructor / course coordinator as soon as possible once academic consideration has been granted. Any delay in contact may limit the options available for academic consideration. While instructors are encouraged to accommodate, each instructor has discretion in deciding whether or how to apply the Academic Consideration. For more information on the Academic Consideration process, what is and is not an extenuating circumstance, and to submit an Academic Consideration request, please see the Faculty of Arts and Science's [Academic Consideration website](#).

If you need to request academic consideration for this course, you will be required to provide the name and email address of the instructor / coordinator. Please use the following contact information:

- **Instructor/Course Coordinator Name:** Tara Karasewich
- **Instructor/Course Coordinator Email Address:** psyc.accom@queensu.ca

For more information, please see the [Senate Policy on Academic Consideration for Students in Extenuating Circumstances](#).

14. Accommodations for Disabilities

Queen's University is committed to working with students with disabilities to remove barriers to their academic goals. Queen's Student Accessibility Services (QSAS), students with disabilities, instructors, and faculty staff work together to provide and implement academic accommodations designed to allow students with disabilities equitable access to all course material (including in-person lectures as well as exams). If you are a student currently experiencing barriers to your

academics due to disability related reasons and you would like to understand whether academic accommodations could support the removal of those barriers, please visit the [QSAS website](#) to learn more about academic accommodations or start the registration process with QSAS by clicking *Access Ventus* button at [Ventus | Accessibility Services | Queen's \(queensu.ca\)](#).

VENTUS is an online portal that connects students, instructors, Queen's Student Accessibility Services, the Exam's Office, and other support services in the process to request, assess, and implement academic accommodations. To learn more, go to [A Visual Guide to Ventus for Students](#). If you have any questions regarding the implementation of your accommodations in this course, please contact:

- **Accommodations Coordinator Name:** Tara Karasewich
- **Accommodations Coordinator Email Address:** psyc.accom@queensu.ca

15. Academic Integrity

Queen's University is dedicated to creating a scholarly community free to explore a range of ideas, to build and advance knowledge, and to share the ideas and knowledge that emerge from a range of intellectual pursuits. Each core value of academic integrity, as defined in the [Senate Academic Integrity Policy](#), gives rise to and supports the next.

- **Honesty** appears in presenting one's own academic work, whether in the context of an examination, written assignment, laboratory, or seminar presentation. It is in researching one's own work for course assignments, acknowledging dependence on the ideas or words of another, and in distinguishing one's own ideas and thoughts from other sources. It is also present in faithfully reporting laboratory results even when they do not conform to an original hypothesis. Further, honesty is present in truthfully communicating in written and / or oral exchanges with instructors, peers, and other individuals (e.g., teaching assistants, proctors, university staff, and / or university administrators).
- **Trust** exists in an environment in which one's own ideas can be expressed without fear of ridicule or fear that someone else will take credit for them.
- **Fairness** appears in the proper and full acknowledgement of the contributions of collaborators in group projects and in the full participation of partners in collaborative projects.
- **Respect** in a general sense is part of an intellectual community that recognizes the participatory nature of the learning process and honours and respects a wide range of opinions and ideas. However, "respect" appears in a very particular sense when students attend class, pay attention, contribute to discussion and submit papers on time; instructors "show respect by taking students' ideas seriously, by recognizing them as individuals, helping them develop their ideas, providing full and honest feedback on their work, and valuing their perspectives and their goals" ("The Fundamental Values of Academic Integrity", 3rd Edition, p. 8).

- **Responsibility** is both personal and collective and engages students, administrators, faculty, and staff in creating and maintaining a learning environment supported by and supporting academic integrity.
- **Courage** differs from the preceding values by being more a quality or capacity of character – “the capacity to act in accordance with one’s values despite fear” (“The Fundamental Values of Academic Integrity”, 3rd edition, p. 10). Courage is displayed by students who make choices and integrous decisions that are followed by action, even in the face of peer pressure to cheat, copy another’s material, provide their own work to others to facilitate cheating, or otherwise represent themselves dishonestly. Students also display courage by acknowledging prior wrongdoing and taking proactive measures to rectify any associated negative impact.

All of these values are not merely abstract but are expressed in and reinforced by the University’s policies and practices. Queen’s [Student Academic Success Services](#) (SASS) offers a self-directed, online academic integrity module, which I encourage all students to take which will help with:

- Understanding the nature of the academic integrity departure
- Understanding the expectations of and role of sources in scholarly writing
- Integrating sources into your writing (paraphrasing, quoting, summarizing)
- Understanding when and how to cite your sources
- Managing your time effectively to avoid the need for shortcuts
- Taking effective notes to ensure accuracy of source material and correct attribution

16. Statement on Generative Artificial Intelligence (AI) Tools

My current policy on using generative AI writing tools (e.g., ChatGPT, Gemini, Claude, Copilot) in your submitted work is that they are not permitted in this course. This type of use constitutes a departure from academic integrity. Only original work, completed wholly by you, is expected to be submitted in this course.

The main reason why I have this stance is that writing, analytical, and critical thinking skills are some of the key learning objectives of this course, and the use of AI writing tools often shortcuts the amount of intellectual heavy lifting needed to gain strong competencies in these areas. The best analogy I have read about the use of AI writing tools in academia is that it is equivalent to using a forklift to work out for you – sure, it can lift the weights, but that is not the point of working out. If you also tie this into the numerous questions of quality, accuracy, plagiarism, privacy, bias, discrimination, exploitation, and climate ethics that current AI writing tools raise, in my mind, the very real costs of these tools do not outweigh any of their potential benefits.

For these reasons, I have purposefully structured this course to allow you to learn the art of learning, and I hope you use our time this term as a venue for this growth.

17. Statement on Turnitin software

This course makes use of Turnitin, a third-party application that helps maintain standards of excellence in academic integrity. Normally, students will be required to submit their course assessments via onQ to Turnitin. In doing so, students' work will be included as source documents in the Turnitin reference database, where they will be used solely for the purpose of detecting plagiarized text in this course. Data from submissions is also collected and analyzed by Turnitin for detecting [Artificial Intelligence \(AI\)-generated text](#). These results are not reported to me as your course instructor at this time but could be in the future.

Turnitin is a suite of tools that provide instructors with information about the authenticity of submitted work and facilitates the process of grading. The similarity report generated after an assignment file is submitted produces a similarity score for each assignment. A similarity score is the percentage of writing that is similar to content found on the internet or the Turnitin extensive database of content. Turnitin does not determine if an instance of plagiarism has occurred. Instead, it gives instructors the information they need to determine the authenticity of work as a part of a larger process.

Please read Turnitin's [Privacy Policy](#), [Acceptable Use Policy](#), and [End-User License Agreement](#), which govern users' relationship with Turnitin. Also, please note that Turnitin uses cookies and other tracking technologies; however, in its service contract with Queen's Turnitin has agreed that neither Turnitin nor its third-party partners will use data collected through cookies or other tracking technologies for marketing or advertising purposes. For further information about how you can exercise control over cookies, see [Turnitin's Privacy Policy](#).

Turnitin may provide other services that are not connected to the purpose for which Queen's University has engaged Turnitin. Your independent use of Turnitin's other services is subject solely to Turnitin's Terms of Service and Privacy Policy, and Queen's University has no liability for any independent interaction you choose to have with Turnitin.

18. Copyright of Course Material

Course materials created by me as your course instructor, including slides, presentations, handouts, assignments, exams, and other similar course materials, are the intellectual property of the instructor. It is a departure from academic integrity to distribute, publicly post, sell, or otherwise disseminate an instructor's course materials or to provide an instructor's course materials to anyone else for distribution, posting, sale, or other means of dissemination, without the instructor's express consent. Any student who engages in such conduct may be subject to penalty for a Departure from Academic Integrity and may also face adverse legal consequences for infringement of intellectual property rights.