

SYLLABUS

Principles of Memory

PSYC 320 – W2023 (on campus)

Weekly lecture times: Tue 10:00-11:30 EST; Thu 8:30-10:00 EST

Location: Chernoff Hall room 117

Instructor: Dr. Jeff Wammes

Contact: jeffrey.wammes@queensu.ca

Office hours: Thu 11:30-12:30 EST, or by appointment

| Teaching Assistants: | <u>Name</u> | <u>Contact</u> | <u>Office hours</u> | <u>Location</u> |
|-----------------------------|-------------|--|---------------------|-----------------|
| | Hala Rahman | halla.abdulrahman@queensu.ca | TBD | TBD |
| | Yijun Xu | yijun.xu@queensu.ca | TBD | TBD |

1.0 Land Acknowledgment

I will begin this syllabus by acknowledging that Queen's is situated on traditional Anishinaabe and Haudenosaunee territory. We are grateful to be able to live, learn and teach on these lands. By acknowledging this traditional territory, we recognize its history and its significance for the Indigenous Peoples who lived and continue to live, upon it.

2.0 Diversity and Inclusion

In this class, it is my goal to ensure that students have a great learning experience. For this to happen, consistent with the university code, offensive statements that violate university code will not be tolerated. Every student in this class must abide by these policies (i.e. do not make offensive statements); there will be **no tolerance** for any language that targets equity-deserving groups, including but not limited to comments that are racist, homophobic, transphobic, ableist or ageist. The diversity of experiences that students bring to this class are a resource, strength and benefit. With this, **students in this class are encouraged to speak up and participate** during class meetings and provide perspectives from their own lived experiences (e.g., of minoritization or oppression).

3.0 Course Summary

In this course we will cover the foundational principles of what we know and understand about human memory. This survey of research in memory provides a big picture perspective, beginning with basic principles, methods, and biological bases, then progressing through different kinds of memory, forgetting and amnesia, and contemporary theoretical models of memory function. Throughout, you will gain a first-hand perspective on how memory research is done.

4.0 Learning Outcomes

In this course, you will learn to:

- LO 1. Understand the foundational concepts that drive how our memory functions.
- LO 2. Integrate knowledge from different methodologies and theoretical perspectives.
- LO 3. Discuss, communicate, and disseminate current (and future) research projects.
- LO 4. Connect theory with practice, learning how textbook concepts are derived in real life, and how data are presented.

5.0 Weekly Structure of the Course

Each week (with some exceptions) has two lectures, covering 2-3 chapters from your textbook (~1 chapter per lecture). Often, the first lecture will end with a demonstration, where you will act as a participant in a memory experiment, and the second lecture will begin with an exploration of the data yielded in that experiment.

- **Every Tuesday** (10:00 EST) and **Thursday** (8:30 EST), the class will convene in Chernoff Hall room 117 for lectures, presentations, exams, or review sessions.
- **On some Tuesdays**, the lecture will end with an in-class demonstration, where students act as participants in a memory experiment (link to be provided in class and completed in class).
- **On Thursdays of those weeks**, the lecture will begin with some visualization and exploration of the data collected in Tuesday's class (no action required by students).
- **On Fridays of those weeks**, a short response (see details in a later section) will be due.

6.0 Reading Materials

This course has a required textbook ([link here](#)). Note that this course was built based upon the 4th edition of the textbook, so the 3rd edition is not guaranteed to sufficiently cover the course content. Also note that there are many purchase options, including the various forms listed below, as well as shorter-term rentals of each, for a lower cost.

Title: Human Memory, 4th edition

Author: Gabriel Radvansky

Hardcover ISBN: 9780367252915

Softcover ISBN: 9780367252922

e-book ISBN: 9780429287039

7.0 Assessment Summary (see below for details)

| | |
|---|-----|
| Responses | 10% |
| Synthesis Paper (all parts) | 25% |
| Proposal Presentation | 15% |
| Exam 1 | 30% |
| Exam 2 | 20% |

8.0 Grading

All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Official Grade Conversion Scale:

| Grade | Numerical Range | Grade Point Equivalent |
|-------|-----------------|------------------------|
| A+ | 90 - 100 | 4.3 |
| A | 85 - 89 | 4.0 |
| A- | 80 - 84 | 3.7 |
| B+ | 77 - 79 | 3.3 |
| B | 73 - 76 | 3.0 |
| B- | 70 - 72 | 2.7 |
| C+ | 67 - 69 | 2.3 |
| C | 63 - 66 | 2.0 |
| C- | 60 - 62 | 1.7 |
| D+ | 57 - 59 | 1.3 |
| D | 53 - 56 | 1.0 |
| D- | 50 - 52 | 0.7 |
| F | 49 and below | 0.0 |

9.0 Assessments

Note: Assignments in this course have been designed with flexibility for academic consideration for all students. This means that "Short term Requests for Academic Consideration" (submitted through the Faculty of Arts and Science portal without documentation) are often not needed and long-term requests will be handled on a case-by-case basis if needed. Details on grace periods, dropping low scores, and alternative options for assignments are included in each assessment below.

9.1 Responses [10%] – LO1; LO4

Each week during which there is a demonstration (**by Fridays at 23:59 EST**), you will need to submit a response via OnQ. The purpose of these responses is to ensure that you have engaged with the demonstration and the week's content and thought about how the two fit together. It **should not** contain a summary of the week's concepts or demonstration, but rather, it **should** contain some reflection on the broader significance of the demonstration, the content, and how the demo connects to the content. Beyond this, for example, it could include something that interested you, a potential area of improvement you noticed, an unresolved question, a follow-up experiment idea, or

connections to other content in the course (in the course or otherwise). The Responses should be approximately 150-200 words.

Grading of Responses are as follows:

- **3/3** – The response demonstrates an ability to analyze, synthesize, and evaluate the week's concepts and demonstration, and gives evidence of original thinking and an extensive knowledge base. The response shows evidence of learning that goes beyond the content.
- **2/3** – The response demonstrates some critical reasoning and an understanding of the week's concepts and demonstration. It is clear there is a solid understanding of the relationship between the two, and between concepts within the content. The student needs to be clearer and more concise in their writing.
- **1/3** – The response shows an acceptable summary of some of the week's concepts or the demonstration. Basic facts and vocabulary are present, but the student needs to engage more deeply with the content and convey ideas with more clarity.
- **0/3** - Incomplete.

Your 7 best grades out of 8 total Responses will be counted. *Automatic extensions of one day will be allowed for these Responses.*

We are not able to provide more than a week's extension on the response assignments for students with an approved accommodation/consideration. For students experiencing extenuating circumstances that go beyond a week, we are able to drop and reweight up to three of the response assignments.

9.2 Synthesis Paper (all parts) [25%]

9.2.1 Part 1: Pick-a-paper [4%] – LO3

Find a published paper on the topic of "Retrieval-induced forgetting" (RIF) that was published in a reputable journal in 2022 or later. You should select a paper that you find interesting and related to the topic. You will then submit the APA citation for the paper to the Assignment DropBox on OnQ, along with a short (~150-200 words) summary of both why you found it interesting, and how it relates to the topic. *Automatic extensions of one day will be allowed for these Responses.*

9.2.2 Part 2: Post Slides [3%] – LO1; LO3

Five papers related to the topic (RIF) will be selected, and will eventually be the basis of your Synthesis Paper (Part 4). Every student will be placed in a group of five students, and assigned a paper (**not** the one you found in Part 1). During the in-class Speed Round activity (see schedule), you will break out into your groups, and explain your assigned papers to one another. For this, you should prepare a set of slides (< 8 slides) designed to informally present your paper to your group. Your presentation **must be** less than 8 minutes, and your slides must be posted to the Assignment Dropbox in OnQ by the deadline (see schedule) to receive your 3%. *Automatic extensions of one day will be allowed for posting slides.*

9.2.3 Part 3: Speed Round Notes [%3] – LO1; LO2; LO3

During the in-class Speed Round activity, you will each break off into your respective groups, and present your papers to one another. You are expected to take notes based on the presentations of your group. This will be useful to you, as these papers are the basis of your eventual Synthesis Paper (Part 4). Your notes must be posted to the Assignment Dropbox in OnQ by the deadline (see schedule) to receive your 3%. If these are electronic notes, the file can be posted. Otherwise, you can take a photo or scan of the written notes and post them. *Automatic extensions of one day will be allowed for posting notes.*

9.2.4 Part 4: Synthesis Paper [%15] – LO1; LO2; LO3

The Synthesis Paper is a 1500-word (maximum) paper integrating some of the ideas from at least three of the five papers (though you may also draw from external sources) to explain how or why you think RIF occurs (i.e. the underlying mechanism), and how you might design an experiment to test this. Importantly, I

am not looking for you to repeat back to me what one of the authors of the papers already wrote, but rather, to integrate and synthesize across the papers to propose your own idea about how they work together to advance our knowledge of the phenomenon. It should be clear from your writing how the existing research motivated your ideas (or if it did not, what the critical gaps were that led you to look elsewhere). It should also be apparent from your coverage of the prior literature how your experiment addresses your idea for how RIF works, what sort of outcome would support your idea, and what it would mean if the outcome was inconsistent with your idea. *Automatic extensions of two days will be allowed for papers.*

9.3 Proposal Presentation [15%] – LO1; LO3

You will be placed in a *different* group of five students, this time consisting of only people who were assigned the same paper as you in Part 2 (above). Your job (as a group) is to create a presentation that explains the paper, proposes a follow-up experiment, and talks about some hypothetical outcomes. This presentation (in total) should be no more than 10 minutes.

- Describe the paper's theoretical context, methods, results, and implications (3-4 mins)
- Propose a novel experiment, directly following up on, or inspired by the paper (3-4 mins)
- Predict some hypothetical results, including the implications of these results (2 mins)

It is up to you as a group to decide how you want to deliver the presentation. This can be one person delivering the work of the whole group, every person contributing a part, or anything in between. **Each member of the group will receive the same grade.** While some of the grade will be based on delivery, the majority will be based on the content, organization, and completeness, not the delivery. Slides (and notes, if applicable), must be uploaded by the date of the group's presentation (See schedule). *Because these are group presentations, there will be no extensions.*

9.4 Exam 1 [30%] – LO1; LO2

This exam will take place **during normal class time** on Thurs Feb 16th and is worth 30% of your grade. This will consist of primarily multiple-choice questions, followed by two short answer questions. This will cover the lecture content up to and including Week 5, and Chapters 1 through 8 (inclusive), 10, and 12 from the textbook.

9.5 Exam 2 [20%] – LO1; LO2

This exam will take place **during normal class time** on Thurs Apr 6th and is worth 20% of your grade. This will consist of primarily multiple-choice questions, followed by two short answer questions. This will cover the lecture content from Weeks 7 through 11 (inclusive), and Chapters 9, 11, and 13 through 18 (inclusive). The content from the first Exam will not be tested in this exam (i.e. it is **not** cumulative).

10.0 Discussion/Participation Guidelines

University is a place to share, question and challenge ideas. Each student brings a different lived experience from which to draw upon. To help one another learn the most we can from this experience please consider the following guidelines.

1. Make a personal commitment to learn about, understand, and support your peers.
2. Assume the best of others and expect the best of them.
3. Acknowledge the impact of oppression on the lives of other people and make sure your writing is respectful and inclusive.
4. Recognize and value the experiences, abilities, and knowledge each person brings.
5. Pay close attention to what your peers write before you respond. Think through and reread your writings before you post or send them to others.
6. It's ok to disagree with ideas, but do not make personal attacks.
7. Be open to being challenged or confronted on your ideas and to challenging others with the intent of facilitating growth. Do not demean or embarrass others.
8. Encourage others to develop and share their ideas.

11.0 Copyright of Course Materials

Unless otherwise stated, the material on the course website, including all slides, presentations and assignments, are the instructor's intellectual property. The materials are copyrighted and for the sole use of students registered in PSYC320. The material on the website may be downloaded for a registered student's personal use but shall not be

distributed or disseminated to anyone other than students registered in this course. 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 (including note sharing sites), posting, sale or other means of dissemination without the instructor's express consent. A 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.

12.0 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.

Queen's students, faculty, administrators and staff all have responsibilities for upholding [the fundamental values of academic integrity](#); honesty, trust, fairness, respect, responsibility and courage. These values are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the [Senate Report on Principles and Priorities](#)).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments and their behaviour conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see [Academic Regulation 1](#)) on the [Arts and Science website](#), and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

13.0 Accommodation Statement

Queen's University is committed to achieving full accessibility for people with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. The Senate Policy for Accommodations for Students with Disabilities was approved at [Senate in November 2016](#). If you are a student with a disability and think you may need academic accommodations, you are strongly encouraged to contact the Queen's Student Accessibility Services (QSAS) and register as early as possible. For more information, including important deadlines, please visit the [QSAS website](#).

14.0 Academic Considerations for 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:

- Short-term physical or mental health issues (e.g., stomach flu, pneumonia, COVID diagnosis, vaccination, etc.)
- Responses to traumatic events (e.g., Death of a loved one, divorce, sexual assault, social injustice, etc.)
- Requirements by law or public health authorities (e.g., court date, isolation due to COVID exposure, etc.)

Queen's University is committed to providing academic consideration to students experiencing extenuating circumstances. For more information, please see [the Senate Policy on Academic Consideration for Students in Extenuating Circumstances](#).

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. Arts and Science undergraduate students can find the Faculty of Arts and Science protocol and the [portal where a request can be submitted at](#). Students in other Faculties and Schools who are enrolled in this course should refer to the protocol for their home Faculty.

For guidance on **submitting requests**, please see refer to the Resource Guides available on the [Academic Consideration website](#) under "Applying for Academic Consideration."

N.B: The COVID-19 pandemic is an evolving situation. If you have symptoms or are deemed a close contact of someone with COVID, please access our [COVID-Related Absence Reference Guide](#) on the [Academic Consideration website](#). This guide will provide you with information on applying for consideration, the types of documentation (including non-medical documentation) you can use to support your request, as well as insight into how the Faculty office will assess these requests.

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: Jeff Wammes
 Instructor email address: jeffrey.wammes@queensu.ca

Students are encouraged to submit requests as soon as the need becomes apparent and to contact their Professors/Course Coordinators as soon as possible once Consideration has been granted. Any delay in contact may limit the Consideration options available.

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 our website](#).

15.0 Turnitin Statement

***NOTE:** You are free to object to the use of Turnitin, if you let the instructor know via email by Jan 15th. Alternate arrangements will be made to ensure the integrity of the work.

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 assignments through 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 to detect plagiarism.

Turnitin is a suite of tools that provide instructors with information about the authenticity of submitted work and facilitates the process of grading. Turnitin compares submitted files against its extensive database of content, and produces a similarity report and a similarity score for each assignment. A similarity score is the percentage of a document that is similar to content held within the database. 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 Pledge, Privacy Policy, and Terms of Service](#), which governs 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.

16.0 Course Schedule

| Week: Dates | Tue | Thu | Readings | Due Dates |
|-------------------|---|---|--------------|---|
| 1 Jan 10 / Jan 12 | Syllabus, Overview, History | History, Neuroscience | Chapters 1-2 | |
| 2 Jan 17 / Jan 19 | Methods * <i>Demo this week</i> | Short-term/Working Memory | Chapters 3-5 | Pick-a-paper (Jan 17) Response #1 (Jan 20) |
| 3 Jan 24 / Jan 26 | Non-declarative Memory * <i>Demo this week</i> | Episodic Memory (<i>guest lecture Hala Rahman</i>) | Chapters 6-7 | Response #2 (Jan 27) |

| | | | | | |
|----|-----------------|--|---|----------------|--|
| 4 | Jan 31 / Feb 02 | Autobiographical Memory <i>* Demo this week</i> | Forgetting | Chapters 8, 12 | Post Slides (Feb 02) Response #3 (Feb 03) |
| 5 | Feb 07 / Feb 09 | In-class task (Speed Round) <i>* Demo this week</i> | Amnesia | Chapter 10 | Speed Round Notes (Feb 09) Response #4 (Feb 10) |
| 6 | Feb 14 / Feb 16 | In-class review / Q&A | In-class Exam 1 | (none) | |
| - | Reading Week | | | | |
| 7 | Feb 28 / Mar 02 | Semantic Memory <i>* Demo this week</i> | Space and Time <i>(guest lecture Yijun Xu)</i> | Chapters 9, 11 | Response #5 (Mar 03) |
| 8 | Mar 07 / Mar 09 | Memory and Reality <i>* Demo this week</i> | Memory and the Law | Chapters 13-14 | Synthesis Paper (Mar 07) Response #6 (Mar 10) |
| 9 | Mar 14 / Mar 16 | Metamemory <i>* Demo this week</i> | Memory in Infancy | Chapters 15-16 | Response #7 (Mar 17) |
| 10 | Mar 21 / Mar 23 | In-class Presentations | In-class Presentations | (none) | |
| 11 | Mar 28 / Mar 30 | Memory in Aging <i>* Demo this week</i> | Models of Memory | Chapters 17-18 | Response #8 (Mar 31) |
| 12 | Apr 04 / Apr 06 | In-class review / Q&A | In-class Exam 2 | (none) | |