

Faculty of Health
Department of Psychology
PSYC 3495 3.0 A: NEUROSCIENCE OF AGING AND COGNITIVE HEALTH
Thursdays 2:30-5:20, Ross North Building (N102)
Fall, 2023

This course will be delivered in a blended format combining both synchronous, in-person classes (NOT recorded) with asynchronous (recorded) lectures. Please see the course schedule at the end of the syllabus for specific details.

Instructor and T.A. Information

Instructor: Gary Turner
Office Hours: By appointment
Email: grturner@yorku.ca

T.A.	Marium Alvi
Email	alvim@yorku.ca
Office Hours	By appointment

Course Prerequisite(s): PSYC 1010 6.0 and PSYC 2240 3.0

Completion of 54 credits

Course Credit Exclusions

Please refer to [York Courses Website](#) for a listing of any course credit exclusions.

Course website: [eClass](#)

All course materials will be available on the course eClass site, unless otherwise indicated. The site will be your central access point for course materials

Course Description

This course investigates the neural basis of cognitive changes across the adult lifespan. Students will learn how the brain is altered in structure and function as people age and how these changes impact cognition. The course will examine the border between normal and abnormal aging and how neuroscience research is informing strategies to sustain cognitive health into older adulthood.

Program Learning Outcomes

Upon completion of this course, students should be able to:

1. Demonstrate in-depth knowledge in the neuroscience of aging and cognitive health.
2. Articulate trends in the neuroscience of aging and cognitive health .
3. Express knowledge of the neuroscience of aging and cognitive health in written form.

4. Describe and explain limits to generalizability of research findings on the neuroscience of aging and cognitive health.
5. Demonstrate ability to relate information on the neuroscience of aging and cognitive health to own and others' life experiences.

Required Text

1. Erber, Joan T. (2020). Aging and Older Adulthood, **4th edition**. Wiley Blackwell Publishing. United Kingdom [Available in the bookstore or as an e-version]
2. Snowdon, D. (2002). Aging with Grace. Bantum Books. New York, USA. [Available on Amazon or other book sellers]

Course Requirements and Assessment:

Assessments	Date of Evaluation	Weighting
Mid-term Test (in class)	October 19, 2023	35%
Discussion/Book Club Questions	Due for each asynchronous class	5%
Term Paper (Intervention review)	November 30, 2023	30%
Final Exam (during exam period)	December 07-21, 2023	30%
Total		100%

Description of Assignments

All test formats and assignments will be discussed in class and related materials posted on eClass.

Class Format and Attendance Policy

While attendance is not mandatory, the course material consists of textbook readings, original research papers and unique materials discussed in class. As such, attending classes is extremely important for students to acquire all of the resources necessary to excel in this course.

Grading as per Senate Policy

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Assignments and tests* will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 89, B+ = 75 to 79, etc.)

For a full description of York grading system see the York University Undergraduate Calendar – [Grading Scheme for 2023-24](#)

Missed Tests/Midterm Exams/Late Assignments

For any missed quiz or late assignment, students MUST complete the following online form which will be received and reviewed in the Psychology undergraduate office. At this time, due to COVID-19 an Attending Physician's Statement (APS) is not required, however, a reason for missing an evaluated component in the course must be provided.

[HH PSYC: Missed Tests/Exams Form](#). Failure to complete the form within 48 hours of the original deadline will result in a grade of zero for the missed quiz or late assignment.

■ **NO MAKE UPS:**

- If mid-term is missed for **MEDICAL** reasons, the grading weight will be distributed to final term paper (15%) and final exam (20%) which will be cumulative.

■ **NO EXTENSIONS:**

- Any work handed in after the scheduled due dates will be subject to a 10% penalty per day (10% for 1 min to 24 hrs.; 20% for 24 hrs + 1 min to 48 hrs. etc.)
- This is non-negotiable (unfortunately!). PLEASE plan accordingly.
- NOTE:** For students with accommodations, deadlines and penalty periods will be determined on a case-by-case basis in accordance with the accommodations granted.

Add/Drop Deadlines

For a list of all important dates please refer to [Undergraduate Fall/Winter 2023-2024 Important Dates](#)

	Fall (Term F)	Year (Term Y)	Winter (Term W)
Last date to add a course without permission of instructor (also see Financial Deadlines)	September 20	September 20	January 22
Last date to add a course with permission of instructor (also see Financial Deadlines)	September 28	September 28	January 31
Drop deadline: Last date to drop a course without receiving a grade (also see Financial Deadlines)	November 8	February 8	March 11
Course Withdrawal Period (withdraw from a course and receive a grade of "W" on transcript – see note below)	November 9 – December 5	February 9- April 8	March 12- April 8

Add and Drop Deadline Information

There are deadlines for adding and dropping courses, both academic and financial. Since, for the most part, the dates are **different**, be sure to read the information carefully so that you understand the differences between the sessional dates below and the [Refund Tables](#).

You are strongly advised to pay close attention to the "Last date to enrol without permission of course instructor" deadlines. These deadlines represent the last date students have unrestricted access to the registration and enrolment system.

After that date, you must contact the professor/department offering the course to arrange permission.

You can drop courses using the registration and enrolment system up until the last date to drop a course without receiving a grade (drop deadline).

You may [withdraw from a course](#) using the registration and enrolment system after the drop deadline until the last day of class for the term associated with the course. When you withdraw from a course, the course remains on your transcript without a grade and is notated as 'W'. The withdrawal will not affect your grade point average or count towards the credits required for your degree.

Information on Plagiarism Detection

The term paper will be submitted through eClass and will be assessed for original content using the Turn-it-in software.

Electronic Device Policy

This course will be delivered both in person (synchronous) and remotely (asynchronous) and therefore electronic devices (e.g., tablets, laptops) are permitted during class time for course-related purposes. It is expected that you would complete tests/exams in a manner that does not require consulting an unauthorised source during an examination unless the tests/exams are open-book.

Academic Integrity for Students

York University takes academic integrity very seriously; please familiarize yourself with [Information about the Senate Policy on Academic Honesty](#).

It is recommended that you review Academic Integrity by completing the [Academic Integrity Tutorial](#) and [Academic Honesty Quiz](#)

Test Banks

The offering for sale of, buying of, and attempting to sell or buy test banks (banks of test questions and/or answers), or any course specific test questions/answers is not permitted in the Faculty of Health. Any student found to be doing this may be considered to have breached the Senate Policy on Academic Honesty. In particular, buying and attempting to sell banks of test questions and/or answers may be considered as “Cheating in an attempt to gain an improper advantage in an academic evaluation” (article 2.1.1 from the Senate Policy) and/or “encouraging, enabling or causing others” (article 2.1.10 from the Senate Policy) to cheat.

Academic Accommodation for Students with Disabilities

While all individuals are expected to satisfy the requirements of their program of study and to aspire to do so at a level of excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to do so. The university encourages students with disabilities to register with Student Accessibility Services (SAS) to discuss their accommodation needs as early as possible in the term to establish the recommended academic accommodations that will be communicated to Course Directors as necessary. Please let me know as early as possible in the term if you anticipate requiring academic accommodation so

that we can discuss how to consider your accommodation needs within the context of this course. <https://accessibility.students.yorku.ca/>

Excerpt from Senate Policy on Academic Accommodation for Students with Disabilities

1. Pursuant to its commitment to sustaining an inclusive, equitable community in which all members are treated with respect and dignity, and consistent with applicable accessibility legislation, York University shall make reasonable and appropriate accommodations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs. This policy aims to eliminate systemic barriers to participation in academic activities by students with disabilities.

All students are expected to satisfy the essential learning outcomes of courses. Accommodations shall be consistent with, support and preserve the academic integrity of the curriculum and the academic standards of courses and programs. For further information please refer to: [York University Academic Accommodation for Students with Disabilities Policy](#).

Course Materials Copyright Information

These course materials are designed for use as part of the PSYC 3495 course at York University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law.

Copying this material for distribution (e.g. uploading material to a commercial third-party website) may lead to a violation of Copyright law. [Intellectual Property Rights Statement](#).

Course Schedule

PLEASE SEE NEXT PAGE!

COURSE OUTLINE

***** PLEASE ALWAYS CHECK eCLASS FOR UPDATES *****

DATE	TOPIC	READINGS
September 07, 2023	INTRODUCTION TO AGING, NEUROSCIENCE & COGNITIVE HEALTH	<u>Readings:</u> - Chapter 1: pp. 1-34 <u>News release / Video:</u> https://www.cbc.ca/news/health/brain-training-games-no-proof-they-prevent-cognitive-decline-1.3025212 https://www.youtube.com/watch?v=_MG6J2z2dVE
September 14, 2023	BRAIN AGING RESEARCH METHODS & THEORY	<u>Readings:</u> - Chapter 2: 35-64 - Chapter 3: 65-101
September 21, 2023	MEMORY	<u>Readings:</u> - Chapter 5: pp. 144-179
September 28, 2023	SENSATION, PERCEPTION & ATTENTION	<u>Readings:</u> - Chapter 4: pp. 108-143
October 05, 2023	ATTENTION / HIGHER COGNITION	<u>Readings:</u> - Chapter 6: pp. 180-216 - Chapter 7: pp. 217-256
October 12, 2023	NO CLASS: READING WEEK	NO READINGS
October 19, 2023	MID-TERM EXAM	ALL MATERIALS FROM CLASSES 1-5
October 26, 2023	WORKSHOP ON READING/CRITIQUING ORIGINAL INTERVENTION RESEARCH	<u>Readings:</u> - To be posted on eClass
November 02, 2023	COGNITIVE INTERVENTIONS: EVALUATING THE EVIDENCE	<u>Readings:</u> - To be posted on eClass

DATE	TOPIC	READINGS
November 09, 2023	ASYNCHRONOUS LECTURE BOOK CLUB & THOUGHT QUESTIONS	Readings: - Aging Gracefully - Discussion reading (Check eClass)
November 16, 2023	ASYNCHRONOUS LECTURE BOOK CLUB & THOUGHT QUESTIONS	Readings: - Aging Gracefully - Discussion reading (Check eClass)
November 23, 2023	ASYNCHRONOUS LECTURE BOOK CLUB & THOUGHT QUESTIONS	Readings: - Aging Gracefully - Discussion reading (Check eClass)
November 30, 2023 (TERM PAPERS DUE: BEGINNING OF CLASS)	INTERVENTIONS OVERVIEW & AGING GRACEFULLY: BOOK CLUB & COURSE REVIEW	No Readings
FINAL EXAM	IN EXAM PERIOD (Dec 07-21)	All material since the midterm