

## HS 3702A – The Aging Mind

Sept – Dec 2022

### Course Description

This course examines the complexities of aging from a psychological perspective and provides students with learning opportunities to examine psychological theories of aging, the mind-body connection, strategies to optimize cognitive vitality with advancing age and common conditions associated with aging such as Alzheimer's Disease and other related dementias.

*Pre-requisite:* Health Sciences 2700A/B and Health Sciences 2711A/B.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites

*Anti-requisite(s):* None

### Instructor and Course Information

**Instructor:** Dr. Leena Shoemaker

**Email:** [lshoemak@uwo.ca](mailto:lshoemak@uwo.ca)

*The best way to contact me is through email. You can expect a reply within 48hr, excluding weekends and holidays.*

**Teaching Assistant (TA):** TBD

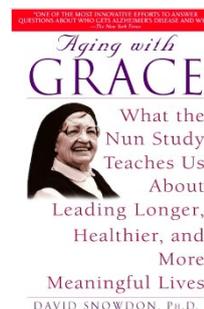
**Lectures:** Two lectures totalling 3 hours per week. Tues 12:30 -1:30PM (FNB-1220) and Wed 9:30 – 11:30 AM (NCB-114). *Bring a pencil or pen to each lecture!*

*\*This course will utilize OWL for weekly lecture content, quizzes, forums etc. A strong internet connection is recommended.*

### Required Course Material

Snowdon, David (2002). *Aging With Grace: What the Nun Study Teaches Us About Leading Longer, Healthier, and More Meaningful Lives*. Random House Publishing Group.

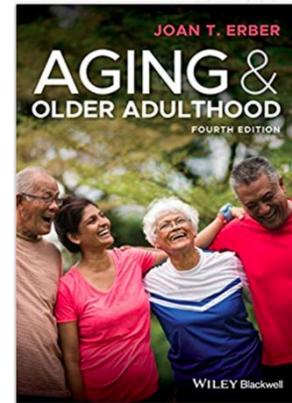
Note: This paperback book is available online, from Indigo for \$23.73, or at the Western Bookstore. This material will be on the exam, and one of your assignments (worth 20%) is a book report based on this reading. Therefore, it is necessary that you borrow or purchase this novel. (Hint – this is a great book that most enjoy reading!).



## Supplementary Course Material (Not Required)

Erber, J. T. (2013). *Aging & older adulthood* (Fourth edition.). Chichester, West Sussex: Wiley-Blackwell.

*Note:* This textbook is available on Amazon.ca for \$69.87 plus shipping, or can be purchased at the Western bookstore (Note, there may be delays in the arrival of this textbook). You are recommended to find this textbook (new or second hand), as a large portion of lecture content will come from these readings. The third edition is an acceptable alternative. The textbook is only meant to supplement the lectures to assist your learning.



*You will not be tested on textbook readings, nor are they required to pass this course.*

## Course Learning Outcomes

Learning Outcomes	Assessment titles
<i>By the end of this course, students will be able to:</i>	<i>This learning outcome will be demonstrated through:</i>
Define and describe the nature of physical and psychological changes to the human brain throughout the aging process.	<ul style="list-style-type: none"> <li>• Weekly Quiz</li> <li>• Book Report</li> <li>• Final Exam</li> </ul>
Recognize and articulate how the aging mind impacts emotion, language, memory, and information processing.	<ul style="list-style-type: none"> <li>• Weekly Quiz</li> <li>• Book Report</li> <li>• Final Exam</li> </ul>
Explore and appraise psychological theories of aging	<ul style="list-style-type: none"> <li>• Weekly Quiz</li> <li>• Final Exam</li> </ul>
Compare and contrast normal and abnormal neuropsychological aging, and articulate strategies to promote the former.	<ul style="list-style-type: none"> <li>• Weekly Quiz</li> <li>• Intervention Project</li> <li>• Final Exam</li> </ul>
Recognize and explain how external validity (generalizability) is a limitation of research on the aging mind.	<ul style="list-style-type: none"> <li>• Weekly Quiz</li> <li>• Final Exam</li> </ul>
Demonstrate an ability to apply knowledge on the neuropsychology of aging and cognitive health to own and others' life experiences.	<ul style="list-style-type: none"> <li>• Intervention Project</li> <li>• Final Exam</li> </ul>

### Assessment Descriptions

Final Examination (34%) – The final exam (3hr) will be written in person on Western University campus (Student ID required). The test-able subject matter is cumulative for the course. The exam will consist of multiple-choice, fill-in-the-blank, and short answer questions. We will practise how to appropriately respond to short-answer questions throughout the term. Date TBD by registrar.

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

### Internal assessment (66%):

*Book report (20%)* – Due October 12<sup>th</sup>, online *before* class (i.e., before 9:30AM via OWL). You will be expected to read a novel titled “Aging with Grace” and produce a 750-word report in response to three pre-determined questions. The questions and marking rubric will be uploaded to OWL and you will have the opportunity to discuss your response with your peers during class time.

*Weekly engagement (21%)* – Throughout the course, you will be expected to complete weekly (7 x 3% each) multiple-choice and short-answer quizzes on OWL. These quizzes are open-book and include questions directly related to the required reading for the upcoming lecture. The quiz opens on OWL each Thursday morning (8:00AM) and must be completed each week by Monday evenings (i.e., before 11:59PM).

*Intervention project (25%)* – Due November 16<sup>th</sup>, online *before class* (i.e., before 9:30AM via OWL). For this individual OR partnered assignment (your choice), you will create either a podcast, brochure, or web-page to provide information on an intervention for healthy neuropsychological aging. The intervention can focus on physical activity, mental activity, diet, and/or social engagement. This media project will be a structured review of relevant scientific literature but presented in a way that your own grandparents would understand. Details for the assessment of your specific media choice will be provided on OWL.

## Content Table

Week	Lecture	Date	Lecture Topic	Assigned Readings	Supplement Readings*	Assessment Due
<b>1</b>	1	Sept-13	Neuroscience & cognitive health intro		Chapter 1	
	2	Sept-14				
<b>2</b>	3	Sept-20	Aging mind research methods & theory	Aging with Grace	Chapter 2	
	4	Sept-21				
<b>3</b>	5	Sept-27	Biological aging: What is normal?	Aging with Grace	Chapter 3	Weekly Quiz (OWL)
	6	Sept-28				
<b>4</b>	7	Oct-4	Psychological theories of aging	Articles on OWL <sup>1</sup>		Weekly Quiz (OWL)
	8	Oct-5		Aging with Grace		
<b>5</b>	9	Oct-11	Neurocognitive aging: Sensation, perception, & attention	Article on OWL <sup>2</sup>	Chapter 4	Weekly Quiz (OWL) <b>Book Report (12<sup>th</sup>)</b>
	10	Oct-12				
<b>6</b>	11	Oct-18	Neurocognitive aging: Memory & higher cognition	Article on OWL <sup>3</sup>	Chapter 5, 7	Weekly Quiz (OWL)
	12	Oct-19				
<b>7</b>	13	Oct-25	Social support for aging & Modifiable Risk Factors	Article on OWL <sup>4</sup>		Weekly Quiz (OWL)
	14	Oct-26				
<b>READING WEEK (October 31 – November 4), NO CLASS</b>						
<b>8</b>	16	Nov-8	Cognitive Interventions: Mental activity <b>(ONLINE)</b>	Intervention Articles on OWL <sup>5</sup>		Weekly Quiz (OWL)
	17	Nov-9				
<b>9</b>	18	Nov-15	Cognitive Interventions: Physical activity	Intervention Articles on OWL <sup>6</sup>		Weekly Quiz (OWL) <b>Intervention Project (16<sup>th</sup>)</b>
	19	Nov-16				
<b>10</b>	20	Nov-22	Cognitive Interventions: Social engagement	Intervention Articles on OWL <sup>7</sup>		
	21	Nov-23				
<b>11</b>	22	Nov-29	Psychopathology of aging	Website Exploration <sup>8</sup>		
	23	Nov-30				
<b>12</b>	24	Dec-6	Review for Final Exam		Article on OWL <sup>9</sup>	
	25	Dec-7				
<b>Final Exam – Date TBD by registrar</b>						

Please note that the lecture timetable is subject to change, as needed, throughout the course.

\*Supplement Readings are to assist you with understanding the material taught in lectures. Testable material includes the lectures and assigned readings (below), not the supplement readings.

## Assigned Readings (Required)

The following articles will be available on OWL:

- <sup>1</sup> Lazarus, R. S., & DeLongis, A. (1983). Psychological stress and coping in aging. *American Psychologist*, 38(3), 245-254.
- <sup>1</sup> Schroots, J. J. (1996). Theoretical developments in the psychology of aging. *The Gerontologist*, 36(6), 742-748.
- <sup>2</sup> Svetina, M. (2016). The reaction times of drivers aged 20 to 80 during a divided attention driving. *Traffic Injury Prevention*, 17(8), 810-814.
- <sup>3</sup> Schroeder, S. R., & Marian, V. (2012). A bilingual advantage for episodic memory in older adults. *Journal of Cognitive Psychology*, 24(5), 591-601.
- <sup>4</sup> Amanollahi, M., Amanollahi, S., Anjomshoa, A., & Dolatshahi, M. (2021). Mitigating the negative impacts of aging on cognitive function; modifiable factors associated with increasing cognitive reserve. *European Journal of Neuroscience*, 53(9), 3109-3124.
- <sup>5</sup> Ball, K., Berch, D. B., Helmers, K. F., Jobe, J. B., Leveck, M. D., Marsiske, M., ... & ACTIVE Study Group. (2002). Effects of cognitive training interventions with older adults: a randomized controlled trial. *Jama*, 288(18), 2271-2281.
- <sup>5</sup> Park, D. C., & Bischof, G. N. (2022). The aging mind: neuroplasticity in response to cognitive training. *Dialogues in Clinical Neuroscience*. 15(1), 109-119.
- <sup>6</sup> Colcombe, S. J., Kramer, A. F., Erickson, K. I., Scalf, P., McAuley, E., Cohen, N. J., ... & Elavsky, S. (2004). Cardiovascular fitness, cortical plasticity, and aging. *Proceedings of the National Academy of Sciences*, 101(9), 3316-3321.
- <sup>6</sup> Boyke, J., Driemeyer, J., Gaser, C., Büchel, C., & May, A. (2008). Training-induced brain structure changes in the elderly. *Journal of Neuroscience*, 28(28), 7031-7035.
- <sup>7</sup> Fried, L. P., Carlson, M. C., Freedman, M., Frick, K. D., Glass, T. A., Hill, J., ... & Zeger, S. (2004). A social model for health promotion for an aging population: initial evidence on the Experience Corps model. *Journal of Urban Health*, 81(1), 64-78.
- <sup>8</sup> About Dementia. Alzheimer Society of Canada. (n.d.). <https://alzheimer.ca/en/about-dementia>
- <sup>9</sup> Livingston, G., Huntley, J., Sommerlad, A., Ames, D., Ballard, C., Banerjee, S., ... & Mukadam, N. (2020). Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. *The Lancet*, 396(10248), 413-446.

## Personal Teaching Approach

I have designed this course to facilitate a productive learning environment. It is my goal that throughout the course you will gain a new understanding of concepts related to the aging mind and gain various new academic skills, such as critical thinking and reflective practise. As such, each lecture will focus on facilitating a better understanding of the content from your readings and provide an opportunity to critical analyze relevant literature. Broadly, by the end of the term I hope you will gain an appreciation (and critical eye!) for experimental design of quantitative research and are able to encourage your older adult friends with specific ways to maintain healthy neurocognitive aging.

Research shows that students who participate have a deeper understanding of course content and are more likely to obtain a better grade in the course. Therefore, I have designed the course to facilitate your learning through multiple avenues of participation. For example, the second half of most Wednesday lectures will involve small group activities to facilitate “inquisitive interactions” with your peers, which ultimately builds a deeper understanding of the course content. Please talk to me if you have any concerns (e.g., social anxiety, disabilities etc) about the inclusivity and/or accessibility of the weekly activities. I want to ensure that all students have equal opportunities to succeed in this classroom environment and will make changes accordingly.

Lastly, my job is to educate you, which partly involves assisting you to learn academic content, and partly equipping you with skills to continue your own learning. Therefore, there are multiple avenues of learning assistance offered to you throughout this course. I encourage you to utilise these avenues in the following order:

- (1) Utilise course resources. This includes your notes taken during lecture, information in OWL, your textbook, and required readings.
- (2) Attend every lecture prepared and ready to ask questions.
- (3) You may contact your TA at the email provided to you with additional questions if they are not available to be answered in your readings, this course outline, or in class.
- (4) Attend my office hours or request additional support by appointment or via email. I am happy to help, but it defeats the educational value if you have not done your own work first.

## Course Policies and Expectations

### Code of Conduct

1) I believe in creating a supportive learning environment for all students. This means that students have mutual respect for each other and can feel free to voice any questions or concerns either to myself directly or in the class environment, without judgment (provided these questions/concerns are phrased respectfully). Your role in creating this environment is to maintain proper conduct and act responsibly and respectfully towards each other. As such, you should expect that as your instructor, I will treat you and your peers with respect. I expect you to also treat others with respect in each interaction.

2) Participation in this course is highly encouraged in order for you to gain the best understanding possible about the complex topics covered. It is expected that each student treats everyone with respect and contributes to the discussion. Throughout the course, we will use multiple modalities of participation (e.g. small group discussions, paired projects, etc) to ensure that everyone feels comfortable to have their voice, questions, concerns, and ideas heard in a safe environment.

For more information, visit <https://www.uwo.ca/univsec/pdf/board/code.pdf> .

## Communication

I will be using OWL to frequently update you on the progression of the course content and important announcements. OWL will also be the landing page for an online discussion forum, where you are able to ask your peers, and myself, any course-related questions. I will be reading all posts in these forums, to ensure respectful and professional communication is used in all circumstances. In addition, students will receive emails to their @uwo.ca address only. Please check OWL and your emails regularly to stay up-to-date with course information.

If you require help, please follow the steps listed above (Personal Teaching Approach). My office hours work on a first come, first served basis. If you require additional help and cannot attend office hours, please email me and we can set up an additional time to meet.

## Attendance and Absences

- 1) Students are strongly encouraged to attend each lecture. I have designed my lectures to further expand topics first introduced in the required and supplemental readings, as well as give “real world” examples to aid your understanding of the content. During lectures, you will have the opportunity to ask questions and participate in small and large group discussion and activities. If you cannot attend lectures, please ask one of your peers for a copy of their notes. Please note that lecture slides will be made available on OWL 24hr prior to each lecture. **Course content discussed in lectures, and not written on the slides or in your readings, will be on the exam.**
- 2) Absence from the final exam must be addressed through academic counselling. Please see your academic advisor if accommodation is required.
- 3) As a rule, no assignments will be accepted after the due date. However, I understand that there may be extenuating circumstances that require extensions. Please consider the following when this situation becomes applicable:

### Accommodation for Medical Illness or Non-Medical Absences

The University recognizes that a student’s ability to meet their academic responsibilities may, on occasion, be impaired by extenuating circumstances, including short-term illness or injury. Reasonable academic consideration is a cooperative process between the University, the student, and academic staff. All participants in the process must act in good faith, and fulfil their respective obligations, if it is to succeed.

Students who experience an extenuating circumstance (illness, injury, or other extenuating circumstance) sufficiently significant as to temporarily render them unable to meet academic requirements, may submit a request for academic consideration through the following routes:

- (i) For medical absences, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner, in order to be eligible for Academic Consideration; or
- (ii) For non-medical absences, submitting appropriate documentation (e.g., obituary, police report, accident report, court order, etc.) to academic advising office in their Faculty of registration, in order to be eligible for academic consideration.

Students seeking academic consideration:

- Are advised to consider carefully the implications of postponing tests or midterm exams or delaying handing in work;

- Are encouraged to make appropriate decisions, based on their specific circumstances, recognizing that minor ailments (e.g., upset stomach) or upsets (e.g., argument with a friend) are not normally an appropriate basis for an SMC
- **Must communicate with their instructors no later than 24 hours** after the end of the period covered by SMC, or immediately upon their return following a documented absence;
- **Are advised that all necessary documentation, forms, etc. are to be submitted to academic advising office within two business days after the date specified for resuming responsibilities.**

## Covid Contingency Plan

Contingency plan for an in-person class pivoting to 100% online learning:

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any remaining assessments will also be conducted online as determined by the course instructor.

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, tests and examinations in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide personal information (including some biometric data) and the session will be recorded. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

<https://remoteproctoring.uwo.ca>.

## University Policies

### Statement on Use of Electronic Devices

*During Exams:* Unless you have medical accommodations that require you to do so, or explicit permission from the instructor of the course, you may not use any electronic devices during ANY tests, quizzes, midterms, examinations, or other in-class evaluations.

*During Lectures and Tutorials:* Although you are welcome to use a computer during lecture and tutorial periods, you are expected to use the computer for scholastic purposes only, and refrain from engaging in any activities that may distract other students from learning. From time to time, your professor may ask the class to turn off all computers, to facilitate learning or discussion of the material presented in a particular class. Unless explicitly noted otherwise, you may not make audio or video recordings of lectures – nor may you edit, re-use, distribute, or re-broadcast any of the material posted to the course website.

### Statement on Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

[Academic Calendar - Western University \(uwo.ca\)](https://www.uwo.ca/academic_calendar/)

Students are expected to use academic integrity. Academic integrity means being honest in your studying and assessments. It is the basis for ethical decision-making and behaviour in an academic context. Academic integrity is informed by the values of honesty, trust, responsibility, fairness, respect and courage. Some examples of academic offences or misconduct include plagiarism, copying, unauthorised collaboration, taking unauthorised material into a test or exam, impersonation, and assisting someone else's misconduct. Students are expected to be aware of, and act in accordance with, the University's Academic Integrity Policy (see Scholastic Offence Policy in the Western Academic Calendar).

In this regard, all required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>)

### **Support Services**

There are various support services around campus, and these include, but are not limited to:

1. Student Development Centre -- <http://academicsupport.uwo.ca/>
2. Student Health -- <https://www.uwo.ca/health/>
3. Registrar's Office -- <http://www.registrar.uwo.ca/>
4. Ombudsperson Office -- <http://www.uwo.ca/ombuds/>

The undergraduate experience is rewarding and challenging socially, emotionally, and intellectually. Finding ways to balance scholarly life with our personal lives can be tough, but it's important to learn how to manage stress. Western provides several health and wellness-related services to students, which may be found at <http://www.health.uwo.ca/>. You can also check out the Campus Recreation Centre or the McIntosh Gallery ( <http://www.mcintoshgallery.ca/>), for alternative spaces to reconnect with your bodies and restore your spirit. You may also want to access local resources that are closer to where you are living during the school year. Recalibrating ourselves emotionally begins with slowing down, reminding ourselves that we are ok, and taking a few deep, slow breaths. This remarkably effective strategy brings the body from stress mode into a more relaxed state.

If you are in emotional or mental distress should refer to Mental Health@Western [Mental Health Support - Health & Wellness - Western University \(uwo.ca\)](#) for a complete list of options about how to obtain help or Thames Valley Family Services (<https://www.familyservicethamesvalley.com/>), a trusted provider within the community. To help you learn more about mental health, Western has developed an interactive mental health learning module, found here: [Health & Wellness – Western University \(uwo.ca\)](#). It's also advisable to have a wellness safety plan if you don't want to reach out to formal services. Having the numbers of a few trusted individuals is another strategy.

Please log-in to OWL to see an interactive Campus Resource card for students.

### **Common Concerns Guidelines**

Concern	How to address concern
Course administrative matters	Read through the course outline or email instructor if question cannot be answered from information in the course outline
Course content questions	Refer to the OWL Resources (notes, calendar, etc). Email the instructor.
Grade disputes and requests for appeals	<p>A student requesting an appeal to a specific course with respect to a grade for an assignment or examination must first contact their instructor to discuss such matters.</p> <p>Visit the following website for guide on submitting an appeal:  <a href="https://uwo.ca/fhs/policies/appeals.html">https://uwo.ca/fhs/policies/appeals.html</a></p>

### SHS Grading Policy

The university-wide descriptor of the meaning of letter grades, as approved by Senate:

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work that is clearly above average
B	70-79	Good work, meeting all requirements and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable.
F	below 50	Fail

It is expected that the grades for this course will fall between 74 and 78. In the event that the course average falls outside this range, a constant may be added (or subtracted) from each student's grade, by the instructor, to bring the class average in line with school policy.