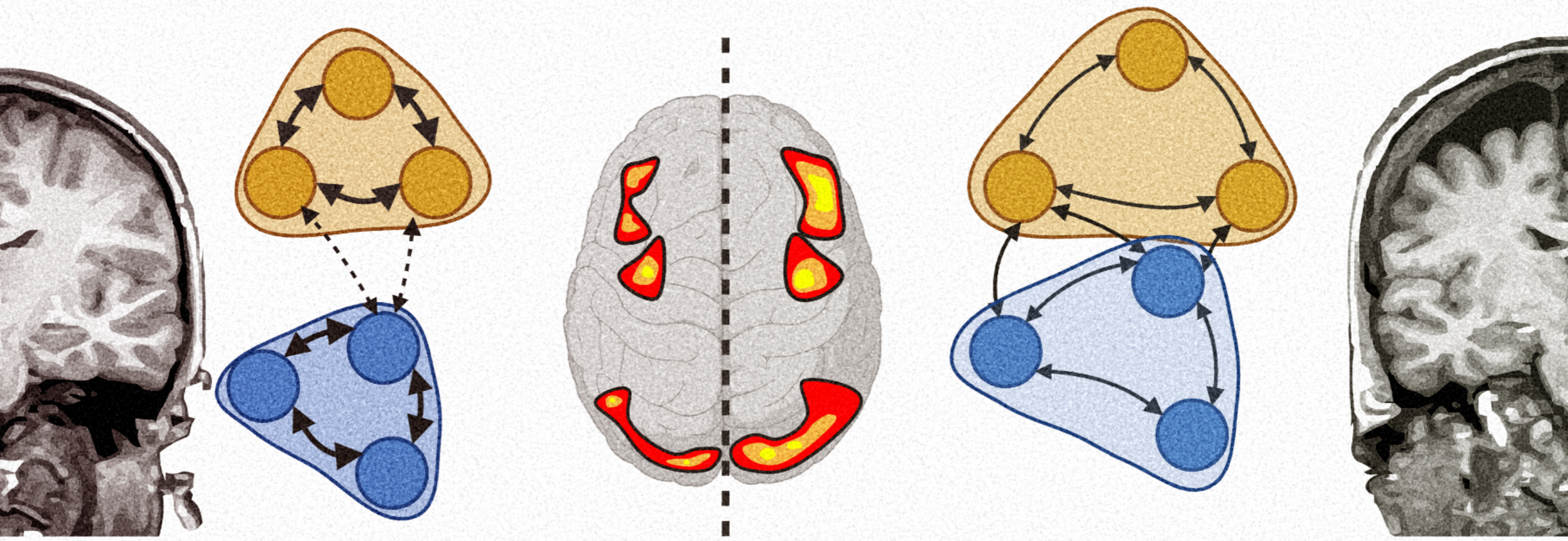


Fall 2022



Neurocognitive Ageing

CGSC4900A & CGSC5901A

Instructor: Prof. John Anderson

Thursdays at 8:35 AM
Dunton Tower 2203

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Course Description

Learning Objectives

Neurocognitive Ageing: In this course, we will explore the *functional* and *structural* neuroanatomy of age-related changes in cognition. We will explore normal and abnormal age-related changes and theories of cognitive aging. Finally, we will examine concepts of "reserve" and compensation to explore how older adults cope with daily life in the face of these cognitive and neural changes.

This course is a **seminar**. It is intended to be a graduate level course (though it is also open to undergraduate students who have taken CGSC 3501 and are in a 4th year standing). As such, much of the course will focus on close reading of primary sources and articles. Students should be prepared to read and discuss articles. While I will be generally following the outline of the book "Cognitive Neuroscience of Aging Linking Cognitive and Cerebral Aging" edited by Cabeza, Nyberg, and Park, this is not required reading. I will use this book to loosely organize the structure of the course and select some of the readings.

At the end of this course, you should expect to understand prominent cognitive and neural theories of ageing as well as being able to describe some of the evidence supporting the various perspectives.

Major theories of aging you should know:

Cognitive: *Sensory deficit hypothesis, Speed of processing, Inhibitory deficit theory, Recollection deficits, binding deficits, deficits in self initiated processes*

Cognitive Neuroscience (the Brain): *frontal aging hypothesis, PASA, HAROLD, STAC, CRUNCH, Compensatory, Dedifferentiation, Failure to Suppress the Default Mode Network, Brain/Neural Reserve, Cognitive Reserve*

01.2 Administrative information

Course location	Cognitive Science Seminar Room (Dunton Tower 2203)
Days and times	Thursdays 8:35 AM-11:25 AM
Course website	Brightspace (readings will be made available here)
Contact information Prof John Anderson TA. TBD	johnanderson3@cunet.carleton.ca
Drop in hour	<p>I will hold my drop in hour immediately following class (i.e., round about noon). My office is directly opposite the seminar room (room 2202). Limit of 2 students at a time.</p> <p>If you need to book a one-on one, please email me.</p>

01.3 Course Calendar | *topics should be considered placeholders*

September 2022

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

November 2022

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

October 2022

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

December 2022

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

Associated readings will be available on Brightspace

Topics based on the “Cognitive Neuroscience of Aging *Second Edition*”, though the assigned readings may differ from the chapter content

DATE	SECTION	DESCRIPTION	ITEMS DUE
08 September	Methods and Issues	First-class - Introduction and welcome. Overview of models of cognitive and cognitive neuroscience of aging	NA
15 September		Structural changes in imaging (MRI). Molecular imaging of aging and neurodegenerative disease	Reaction paper (1/8)
22 September		Age-related changes in white matter and structural connectivity (DWI and white matter hyperintensities)	Reaction paper (1/8)
29 September		Age-related changes in functional connectivity during task and rest	Reaction paper (1/8)
06 October		Longitudinal structural and functional imaging of aging	Reaction paper (1/8)
13 October	Cognitive Processes	Attention, inhibitory control, and working memory decline in the aging brain	Reaction paper (1/8)
20 October		Age-related slowing	Reaction paper (1/8)
03 November		The aging hippocampus & age-related changes in episodic memory	Reaction paper (1/8)
10 November		Emotion and emotional memory	Reaction paper (1/8)
17 November	Health and Disease - later life interventions	Risk factors for cognitive aging (late-life depression, metabolic syndrome, etc)	Reaction paper (1/8)
24 November		“Reserve” factors. The role of education, language, and intellectual engagement on brain and cognitive reserve	Reaction paper (1/8)
01 December		Later life interventions (sleep, activity, cognitive training, far transfer, etc.)	Reaction paper (1/8)
08 December		Disambiguating preclinical AD from Cognitive Aging	Reaction paper (1/8)
09 December			Final Essay (study proposal) by 11:59 PM

01.4 Useful learning tools and approaches

Consider posting strategies you've used successfully on the course discussion board

CONNECTED PAPERS

Prior works

Derivative works

Superintelligence: Paths, Dangers, Strategies

Search...

Expand

Origin paper

Superintelligence: Paths, Dangers, Strategies

Nick Bostrom2014

Artificial Intelligence as a Positive and Negative Factor in Global Risk

Eliezer Yudkowsky2008

The Basic AI Drives

Stephen M. Omohundro2008

Future Progress in Artificial Intelligence: A Survey of Expert Opinion

Vincent C. Müller, Nick Bostrom2013

Responses to catastrophic AGI risk: a survey

Kaj Sotala, Roman V Yampolskiy2015

Corrigendum: Responses to catastrophic AGI risk: a survey (2015 Phys. Scr. 90 018001)

Kaj Sotala, Roman V Yampolskiy2015

Speculations Concerning the First Ultraintelligent Machine

I. J. Good1965

The Singularity: a Philosophical Analysis

David J. Chalmers2010

Responses to Catastrophic AGI Risk : A Survey Kaj Sotala Machine Intelligence Research Institute

Kaj Sotala, Roman V Yampolskiy2013

Research Priorities for Robust and Beneficial Artificial Intelligence

Stuart J. Russell, Daniel Dewey, Max Tegmark2015

Existential Risk Prevention as Global Priority

Nick Bostrom2013

[Obsidian 0.8.2](#)

[Walking through the 3 phases of MOCs](#)

MOC - Unifying Phase

Enjoy the spatial constellation you created. It's certainly meaningful for different purposes: for final products (content creation), as a reference tree, or for the inherent joy the ideas provide.

Mostly of the notes in some sort of formalized structure. I have continued whenever it made sense.

Unifying Habits

[habit](#)
[ation provides an evolutionary advantage](#)
[y a ton of hidden inertia](#)
[formation of habits is additive](#)
[uest habit metaphors are additive](#)

Habits

[ding the habit cycle and habitual cues](#)
[Atomic Habits fit into the conversation on habits](#)
[ency Routines help regain a sense of control](#)
[iving Micro Habits at the Point of Contact](#)
[ing to foster a Sense of Control](#)
[otic curve models the development of skills, strength, habits, and more](#)
[mechanism for breaking through development plateaus](#)

Habit Design

[ut habit cycles in my life circa 2013](#)

Habits

[s preserve mental clarity and a sense of control](#)
[e next day is an important habit](#)
[a morning is an important habit](#)
[ully goals in the morning is an important habit](#)

Repts

[ck Loop, Like hegets like](#)
[ables, Reps, Sense of Control](#)

FILTER PRESSURE – The Effects of Filtered Photography and Photoshop on Self-Esteem

- I. Introduction**
 - a. The need to belong is a natural need according to psychologists
 - b. Teenagers are at their most vulnerable stages of personal development
 - i. Still developing individualism or sense of self-esteem
 - ii. Rampant bullying in schools
 - iii. Introduction to social media's impact on identity development
- II. Internet**
 - a. Statistics on internet usage
 - i. Demographics
 - ii. Locational demographics
 - b. It's all about the buzz
 - i. Creating hype to sell – products, ideas, and personas
 - ii. The difficulty in sifting through the hype to get to the real information
- III. The social media factor**
 - a. The current pervasiveness of social media
 - i. A source of information
 - ii. A form of expression
 - iii. A means of communication
 - b. The false standards social media set
 - i. Standards on Beauty
 - 1. Instagram and filters
 - 2. Unreal Photoshopped pictures
 - ii. Standards on lifestyle
- IV. The effect of photos on the Internet and social media on self-esteem**
 - a. Studies show social media causes anxiety
 - i. Expanded perception of other person's life
 - ii. Weakened appreciation of personal circumstances
 - iii. Padded presentation of personal circumstances
 - b. Keeping up with the Joneses
 - i. Keeping up in real life
 - ii. Keeping up in virtual life
 - c. Cost implications of keeping up
- V. South Korean girls – a case study**
 - a. The stringent standard of beauty in South Korea
 - b. Surgery often used as resolution
 - c. The vicious cycle of self-deprecation as standards get higher
- VI. Current moves locally and internationally to combat the growing problem**
 - a. Information campaign
 - b. Participation of celebrities and influential people

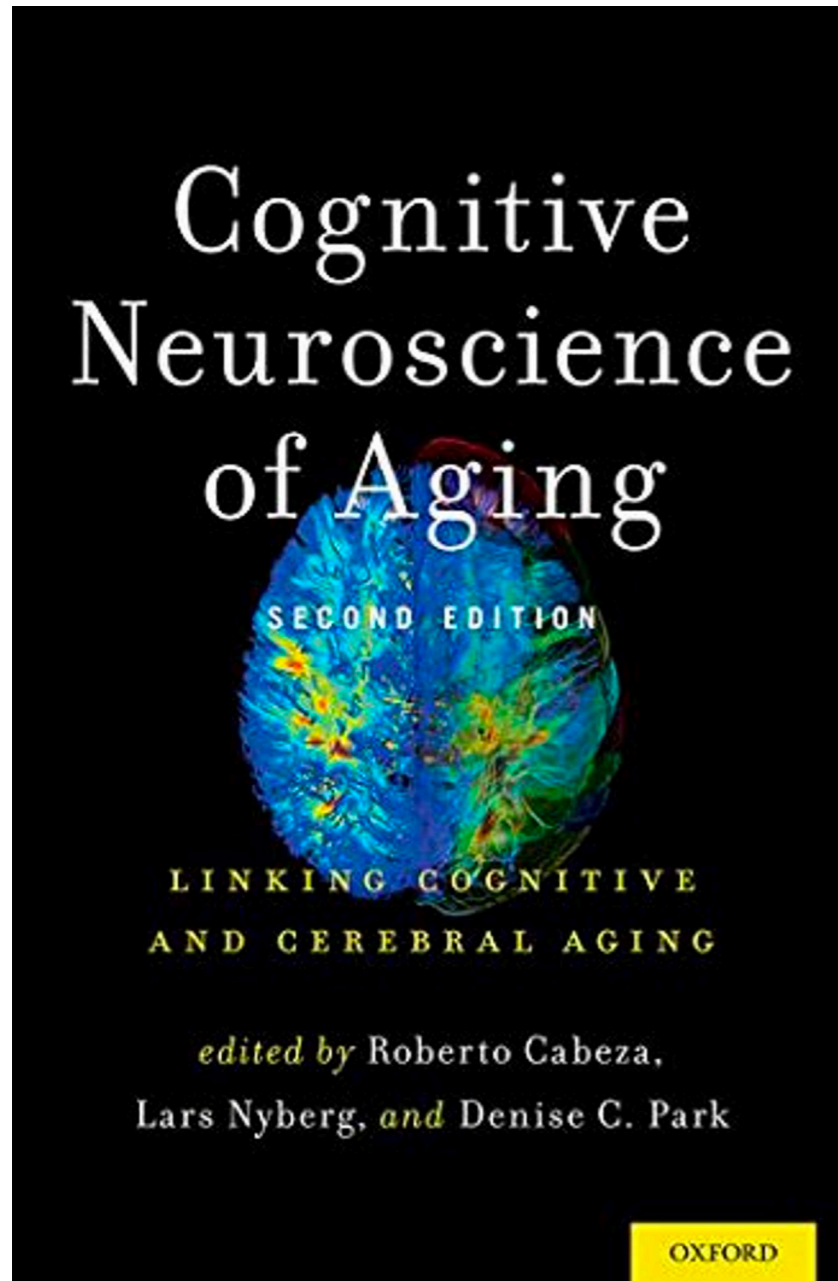
Use connectedpapers.com to leverage graph theory and help you find relevant papers for your research topic

Consider using a note-taking app like [obsidian.md](#) (free) that allows you to link common pieces of knowledge together. This allows you to “discover” connections between sources you might otherwise have overlooked.

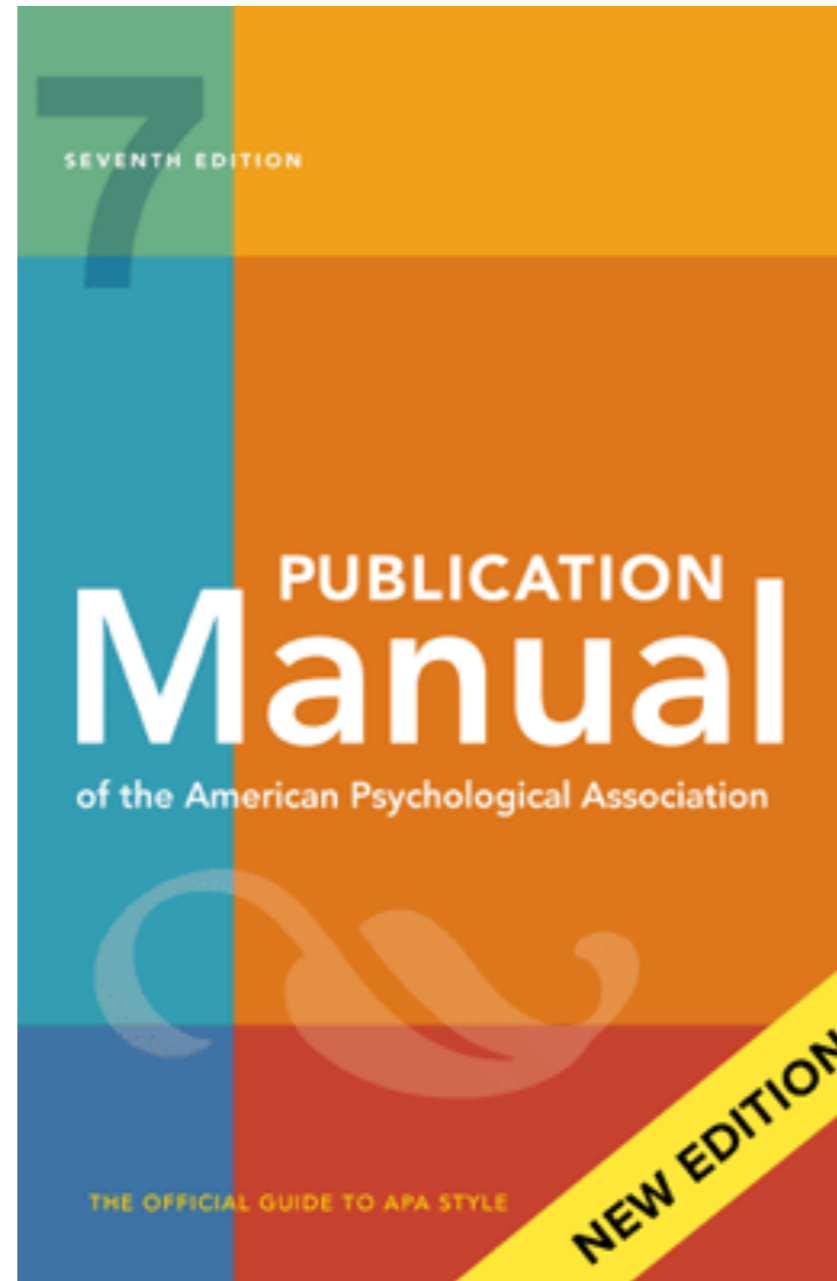
Plan your writing using an outline. You can do this in **any** software that allows you to use different heading levels. Apple notes is great for this, but honestly anything that allows you to create indented notes is fine. Think of this as the roadmap for your paper. Feel free to show me your outlines!

01.5 Supplemental resources

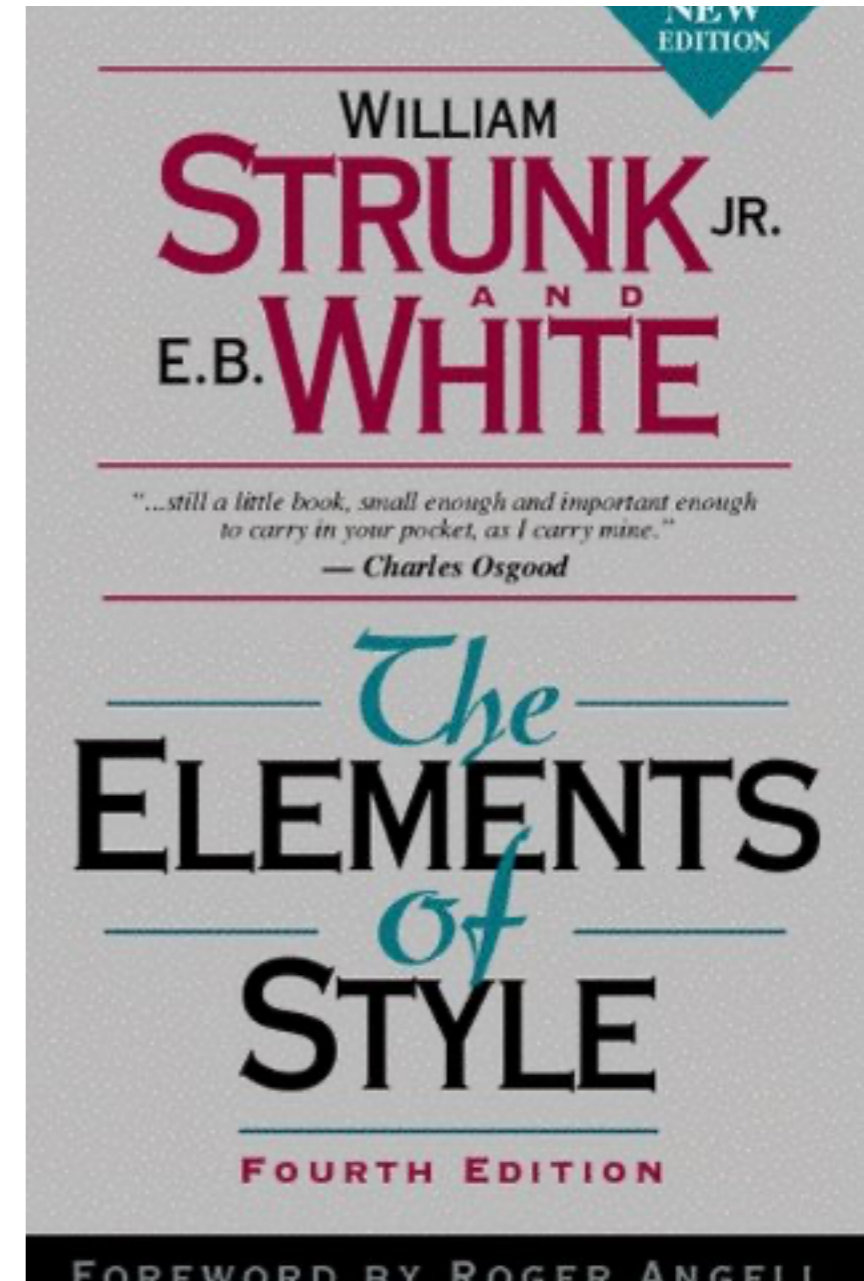
Not required - potentially useful



I will be using this text to loosely structure our readings. It may be useful if you plan to continue in the cognitive aging field - however, you can safely omit it and stick to the journal articles posted on BrightSpace.



APA style guide. An online version can be found here: https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/apa_sample_paper.html



Strunk & White the elements of style - good advice for writing.

Section 2

Course Evaluation

Course Requirements: Graduate Students

- 1) A final paper will be required, in the format of a research proposal on a related topic (to be approved) 70%.
- 2) **8** short (~2 pages) reaction papers over the semester, commenting on the readings for a particular week 15%
- 3) Class participation, and each student will be assigned one class for which they will bring a paper to class related to that week's topic (but not on the reading list) and be prepared to present it 15%

Course Requirements: Undergraduate Students

- 1) A final paper will be required, in the format of a research proposal on a related topic (to be approved) 65%.
- 2) **8** short (~2 pages) reaction papers over the semester, commenting on the readings for a particular week 20%
- 3) Class participation 5%
- 4) Each student will be assigned one class for which they will bring a paper to class related to that week's topic (but not on the reading list) and be prepared to present it 10%

02.2 Reaction papers - to be handed in at the beginning of each class (complete 8)

In the reaction papers, you are expected to read, synthesize, and comment on the readings from the week. You should use proper APA style and citations.

Reaction papers should not just be a retelling of the findings of each paper, but instead offer you a chance to discover **how the papers talk to one another**. Do the papers build together to form a common narrative, or do they instead provide different narratives? What might account for discrepancies (techniques, populations, theories etc?). I would like to hear YOUR voice and opinion in the responses.



02.3 Example Reaction Paper Rubric

Trait	Exceeds	Meets	Below
Introduction	Introduces theme of paper, and articles using rich and descriptive language.	Introduces theme of paper and articles effectively	Fails to present the theme, or fails to provide introduction to articles
Information summary	Provides accurate and descriptive, concise summary of article information, effectively summarizing main points of articles.	Summarizes main points of the articles competently and accurately.	Fails to summarize articles effectively due to omission of key points or inaccurate characterization of information.
Critique	Thoughtfully critiques author(s)' main points, using evidence to back up arguments. Critique is insightful and thorough.	Critiques author(s)' main points, using evidence to back up arguments.	Fails to effectively present critique; and/or fails to use evidence to back up arguments; and/or uses flawed logic to support statements.
Conclusion	Conclusion presents particularly strong or compelling closing statement that ties closely to introduction.	Effective conclusion is presented that corresponds with introduction.	Missing or inconsistent conclusion.
Organization	Information is organized in a fully effective manner; presents strong introduction, expressive body, and purposeful conclusion	Information is organized competently, with thesis, supporting information and conclusion.	Missing or ineffective elements.
Sentence Structure	Sentences effectively constructed with no grammatical errors	Sentences effectively constructed with 1-2 minor grammatical errors	Repeated errors in sentence structure or grammar
Mechanics	Spelling, capitalization and punctuation error-free	1-2 minor errors in spelling, punctuation or capitalization	More than 2 errors

The rubric should be attached to the reaction paper when you hand it in.

02.4 Presentations

Each student will be assigned a presentation date. On that date, they will give a 15 minute presentation on a paper they have selected that is related to the readings for that week (but was not assigned).

Given that each slide should take on average about one minute to present, a good rule of thumb, is thus, no more than 15 slides for your presentation.

Students should present papers in the **IMRAD** (Introduction, methods, results, analysis, discussion) format.

More information as well as a rubric can be found on the BrightSpace website.



02.5

Example Presentation Rubric

Criteria	Beginning 1	Developing 2	Proficient 3	Mastery 4
A. Content Importance of topic, relevance, accuracy of facts, overall treatment of topic	Topic lacks relevance or focus; presentation contains multiple fact errors	Topic would benefit from more focus; presentation contains some fact errors or omissions	Topic is adequately focused and relevant; major facts are accurate and generally complete	Topic is tightly focused and relevant; presentation contains accurate information with no fact errors
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Organization/Clarity Appropriate introduction, body, and conclusions; logical ordering of ideas; transitions between major points	Ideas are not presented in proper order; transition are lacking between major ideas; several parts of presentation are wordy or unclear	Some ideas not presented in proper order; transitions are needed between some ideas; some parts of presentation may be wordy or unclear	Most ideas are in logical order with adequate transitions between most major ideas; presentation is generally clear and understandable	Ideas are presented in logical order with effective transitions between major ideas; presentation is clear and concise
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Completeness Level of detail, depth, appropriate length, adequate background of information	Presentation does not provide adequate depth; key details are omitted or undeveloped; presentation is too short or too long	Additional depth needed in places; important information omitted or not fully developed; presentation is too short or too long	Presentation provides adequate depth; few needed details are omitted; major ideas adequately developed; presentation is within specified length	Presentation provides good depth and detail; ideas well developed; facts have adequate background; presentation is within specified length
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Grammar/Mechanics Correct grammar and usage that is appropriate for audience(s)	Presentation contains several major grammar/usage errors; sentences are long, incomplete or contain excessive jargon	Presentation may contain some grammar or sentence errors; sentences may contain jargon or are too long or hard to follow	Presentation has no serious grammar errors; sentences are mostly jargon-free, complete and understandable	Presentation contains no grammar errors; sentences are free of jargon, complete and easy to understand
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Documentation Proper support and sourcing for major ideas, inclusion of visual aids that support message	Little or no message support provided for major ideas; visual aids are missing or inadequate; little or no sourcing provided	Some message support provided by facts and visual aids; sourcing may be outdated or thin, visual aids need work	Adequate message support provided for key concepts by facts and visual aids; sourcing is generally adequate and current	Effective message support provided in the form of facts and visual aids; sourcing is current and supports major ideas
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Delivery Adequate volume, appropriate pace, diction, personal appearance, enthusiasm/energy, posture, effective use of visual aids	Low volume or energy; pace too slow or fast; poor diction; distracting gestures or posture; unprofessional appearance; visual aids poorly used	More volume/energy needed at times; pace too slow or fast; some distracting gestures or posture; adequate appearance; visual aids could be improved	Adequate volume and energy; generally good pace and diction; few or no distracting gestures; professional appearance; visual aids used adequately	Good volume and energy; proper pace and diction; avoidance of distracting gestures; professional appearance; visual aids used effectively
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Interactions Adequate eye contact with audience, ability to listen and/or answer questions	Little or no eye contact with audience; poor listening skills; uneasiness or inability to answer audience questions	Additional eye contact needed at times; better listening skills needed; some difficulty answering audience questions	Fairly good eye contact with audience; displays ability to listen; provides adequate answers to audience questions	Good eye contact with audience; excellent listening skills; answers audience questions with authority and accuracy
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Adapted from the presentation rubric of Purdue University

02.6 Final Essay (In the format of a research proposal)

As you become familiar with the topics, and the literature covered in this course, you should start to think about the gaps, the areas you find interesting, and the boundaries where theory could be pushed and tested.

These are excellent candidates for your final research paper.

In this paper, you will present the topic, make it clear why there is a need for further investigation, give an overview of the literature, and present a proposed study (see rubric for more details).

Ideally, you will be taking careful notes throughout the semester and starting to think about how to craft this paper rather than leaving everything to the last minute.

I'm free for consults after class, so you can swing by my office get my feedback on ideas, organization, outlines, etc. This reflects the type of input you might receive from a meeting with a graduate advisor.



...Nevertheless, I will hold you to a deadline

02.7 Example final proposal rubric

Topic	Advanced	Effective/Developing	Less Effective/Introductory	Poor
Literature Review (120 Points)	30	25	20	15 or lower
Topic & Context (Total Possible = 30 Points)	Paper (i.e., first paragraph or two) begins in a broad manner and clearly explains the problem to be investigated. Appropriate topic in level and in content (e.g., related to personality/individual differences).	Paper starts somewhat broadly, and provides some theoretical or real-world context for the main concept in the study. An explanation of the key concept or question is provided, but it could be clearer. The topic is appropriate for the class but not necessarily novel in the field.	More clarity in the opening may be needed or the paper may begin with a definition of the topic but provide very little context for the idea (e.g., may begin immediately with review of previous research). The topic, while generally appropriate for the class, may be simplistic.	Paper focuses immediately on the method, or no context for the topic is provided. The topic is not appropriate or is overly simplistic for the class level.
Literature Review (Total Possible = 30 Points)	Studies are described in enough detail so that their relation to other studies and to the relevant theoretical and methodological issues can be understood by the reader. It is clear whether each general statement is a hypothesis, a result of a specific study, or a general conclusion. The review is in the author's own words, and the focus is on the research, rather than the researchers. Limitations of prior research and contrasting views/positions are presented.	Studies are generally described in enough detail so that their relation to other studies and to the relevant theoretical and methodological issues can be understood by the reader (although some sections could be more specific). It is usually clear whether each general statement is a hypothesis, a result of a specific study, or a general conclusion (though some statements may need clarification). The review may include unnecessary quotations or poor paraphrases of the original articles.	Some of the reviewed literature seems to be inappropriate or not well-linked to the topic. Literature may not be reviewed in enough detail for the reader to be sure of its relation to other studies or to the relevant theoretical or methodological issues or it may be one-sided, omitting contrasting viewpoints. The review may discuss key concepts from the literature without paraphrasing adequately (i.e., over-reliance on quotations).	Too few citations are included for the reader to be confident that that literature has been adequately reviewed. Much of the reviewed literature may be inappropriate or not reviewed in enough detail for the reader to be sure of its relation to other studies or to the relevant theoretical or methodological issues. Definition or discussion of key concepts may be improperly paraphrased.
Literature Advancement (Total Possible = 30 Points)	A brief summary of the literature is provided, and there is a specific, clear description of what is missing from this literature or what researchers do not yet know. A clear explanation of how the proposed study idea will answer this question or fill this research gap is included. Specific issues, variables, populations, or methods are mentioned.	A brief summary of the literature is provided, but the description of what is missing from this literature or what researchers do not yet know could be stated more clearly. An explanation of how the proposed study idea will answer this question or fill this research gap is included, but it could be more specific; or, the author makes a vague call for more research without specifying variables, populations, or methods.	A brief summary of the literature is not provided. The description of what is missing from this literature or what researchers do not yet know is unclear. There is little justification for why the proposed study idea will be important to this literature, or the author makes a vague call for more research without any specificity.	A brief summary of the literature is not provided. The description of what is missing from this literature or what researchers do not yet know is absent or very unclear. There is no discussion of why the proposed study idea will be important to this literature, or no study is proposed at this point.
Hypotheses (Total Possible = 30 Points)	One hypothesis is clearly stated, and directional predictions are made based on the previous literature. They are testable. It is clear what the variables will be and what will be measured	The hypothesis is somewhat unclear in stating what the experimental groups or correlational relationship will be or what will be measured. It may be unclear how the hypothesis links to the literature.	One hypothesis must be stated. No directional prediction about the relation between the variables is specifically stated. It is unclear what the variables will be and what will be measured. A hypothesis with no justification may be included.	No hypothesis is stated and hypothesis is very unclear. Direction does not follow from the literature presented

Rubric source: <https://sites.psu.edu/personality/sample-page/research-proposal-rubrics/>

02.7 Example final proposal rubric

Topic	Advanced	Effective/Developing	Less Effective/Introductory	Poor
Proposed Study (50 points)	10	8	6	5 or lower
Proposed Study Design (Total Possible = 10 points)	One suggestion for study is provided. The design is clear, complete, and appropriate to test the hypothesis. Variables are appropriate and operationalized properly.	One suggestion for study is provided. Design is complete and appropriate but not clearly described. Variables are appropriately operationalized but may be simplistic.	One suggestion for study is provided. Design is not complete or the operationalization of the variables is not clear. Measured variables may be simplistic or not appropriate).	One suggestion for study is provided. Design is not appropriate for the hypothesis; variables are not operationalized or not valid.
Method: Participants (Total Possible = 10 points)	Sample is appropriate given hypotheses. Participant information includes number and all necessary characteristics. Exclusions based on behavior (e.g., fussiness, failure to complete) are noted, as are any recruitment criteria or special arrangements (e.g., compensation).	Sample is appropriate given hypotheses, although may be small. A relevant characteristic of the participants may be missing from the description. Must include recruitment criteria or special arrangements.	Sample is not complete given hypotheses (e.g., wrong ages) but is well described. Does not include either recruitment criteria or exclusion information.	Sample is not complete given the hypotheses. Participants are poorly described; replication would not be possible
Method: Materials (Total Possible = 10 points)	Materials are appropriate given hypotheses, checked for reliability, and may include manipulation checks. Materials are described with enough detail that a reader could replicate the study. The measures are appended if self-created, cited if not.	Materials are appropriate but not complete (e.g., too few questions) or not checked for reliability. The description is adequate but could use more detail. The measures are appended or cited, as needed.	Materials are incomplete and not checked for reliability, or they lack validity given the hypothesis. They may also be adequate but simplistic given the study goals. The description is lacking in details but the measures are appended or cited, as needed.	Materials are incomplete and lacking in validity. They are not fully described or included in an appendix.
Method: Procedure (Total Possible = 10 points)	Procedure is appropriate and ethical. It is described, in order, with enough detail that a reader could replicate the study; instructions and protocol are included. Condition assignments are clear; randomization and counterbalancing are explained as necessary.	Procedure is appropriate and ethical. The description is primarily complete but some minor details may be missing, or some procedural aspects could be explained more clearly.	Procedure is appropriate and ethical. The description is not in order or difficult to follow, or a few major details are absent.	Procedure is not appropriate or not ethical. The description is unclear, or many major details are absent.
Proposed Statistics (Total Possible = 10 points)	Proposed statistical method is correct and clearly explained. Inferential statistics are used and provide a clear test of the hypotheses (e.g., if hypothesis is correlational, then suggested statistic analysis should be a correlational analysis).	Results section includes correctly used inferential statistics, but they may be incomplete (e.g., lacking appropriate post hoc tests) or the explanation is unclear. Results may not be linked to hypotheses/design of study.	Results section includes inferential statistics, but they may be incorrect or incomplete. Results do not seem linked with the hypothesis/design of the study.	Overall the inferential statistics do not address the hypotheses of the study. Results are reported incorrectly, the wrong test is used, or some critical information is missing.

Rubric source: <https://sites.psu.edu/personality/sample-page/research-proposal-rubrics/>

02.7 Example final proposal rubric

Topic	Advanced	Effective/Developing	Less Effective/Introductory	Poor
Style (30 points)	10	8	6	5 or lower
References (Total Possible = 10 points)	Reference page includes all and only cited articles. The articles are appropriately scholarly and appropriate to the topic. Sufficient recent sources make the review current, and classic studies are included if applicable and available. Original articles/chapters were clearly read by the student. At least 6 references included.	Reference list may leave out some cited article or include one that was not cited. The articles are appropriately scholarly but may be somewhat tangential and were likely read by the student. Sources include a good mix of recent and classic, as necessary. At least 6 references included.	Some references may not be appropriate for the assignment. Key references are clearly cited from other sources and not likely read by the student. Sources do not include a good mix of recent and classic, if necessary. Less than 6 references included.	Reference list is more like a bibliography of related sources. References may not be scholarly sources or otherwise not appropriate for the assignment (e.g., too many secondary sources), or they may not be current. Less than 6 references included.
Scientific Writing Style (Total Possible = 10 points)	There is a clear organization to the paper (i.e., introduction, body of paper, and conclusions), and transitions are smooth and effective. Tone is appropriately formal. Topic sentences are appropriate for paragraphs, and key ideas are explained/described as needed. Punctuation and grammar are almost completely correct, including proper tenses and voice. Sentences are concise and word choice is precise, with nonbiased language. Proper paraphrases are usually used, but quotation marks are used appropriately if necessary.	Organization is effective although improvements could be made. Transitions are generally there, but are occasionally not smooth, and paragraphs may stray from the central idea. Tone is appropriately formal. Punctuation and grammar are almost completely correct. Sentences are generally concise and word choice is usually precise. Paraphrases are usually used, and quotation marks are used appropriately if necessary.	Organization is less adequate, making the paper difficult to follow. Transitions are sometimes there, and those that are there could be improved. Tone is occasionally colloquial. Punctuation and grammar are usually correct, but there are consistent mistakes. Sentences are not always concise and word choice is sometimes vague. The author includes many quotes or improper "paraphrases" that may constitute unintentional plagiarism.	Organization is confusing. Transitions are missing or are very weak. Tone is consistently too informal. Punctuation and grammar mistakes throughout the paper. Sentences are not concise and word choice is vague. The author strings together quotations without enough original input.
APA Style (see APA manual or resources on ANGEL) (Total Possible = 10 points)	Information is included in the appropriately titled sections. Title page, abstract, in-text citations, paper format, and Reference page are in APA style with no mistakes. All headers, tables and figures, margins, captions, etc., are in APA style.	For the most part, information is included in the appropriately titled sections. Style is generally correct and must include correct spacing, fonts, and margins. Page breaks must be in appropriate places, and sections must be in order. May have minor mistakes in punctuation of references, in-text citations, statistical copy, or headers.	For the most part, information is included in the appropriately titled sections. Consistent APA style errors in referencing, spacing, headers.	Four or more consistent style errors, or many inconsistent style errors. Information is consistently included in the wrong sections (e.g., hypotheses at beginning).
Academic Integrity Check	Quotations AND citations used when citing someone's exact words (including your own). When citing someone's ideas, theories, etc., in-text citations with page numbers are provided. In both cases provide references. Self-plagiarism and plagiarism of other sources not present.			
Total Lit. Review				
Total Design				
Total Style				
Grand Total	/200			

Rubric source: <https://sites.psu.edu/personality/sample-page/research-proposal-rubrics/>

Section 4

University Boilerplate Language

0.4 University Boilerplate



Plagiarism

The University Academic Integrity Policy defines plagiarism as “*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.*” This includes reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, artworks, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Examples of plagiarism include, but are not limited to:

- any submission prepared in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another’s data or research findings without appropriate acknowledgement;
- submitting a computer program developed in whole or in part by someone else, with or without modifications, as one’s own; and
- failing to acknowledge sources through the use of proper citations when using another’s work and/or failing to use quotations marks.

Plagiarism is a serious offence that cannot be resolved directly by the course’s instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of “F” for the course.

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Statement on Student Mental Health

As a University student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. Here is a list that may be helpful:

Emergency Resources (on and off campus): <https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/>

As a matter of course, I will run your work through software to check for plagiarism.

PLEASE don’t do it. It creates SO much Paperwork. If you need more time to do an assignment, contact me rather than plagiarizing.

Your health matters. Let me know if there’s anything you’re going through that could affect your performance in the course.

Carleton Resources:

- Mental Health and Wellbeing: <https://carleton.ca/wellness/>
- Health & Counselling Services: <https://carleton.ca/health/>
- Paul Menton Centre: <https://carleton.ca/pmc/>
- Academic Advising Centre (AAC): <https://carleton.ca/academicadvising/>
- Centre for Student Academic Support (CSAS): <https://carleton.ca/csas/>
- Equity & Inclusivity Communities: <https://carleton.ca/equity/>

Off Campus Resources:

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, <https://www.dcottawa.on.ca/>
- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, <http://www.crisisline.ca/>
- Empower Me: 1-844-741-6389, <https://students.carleton.ca/services/empower-me-counselling-services/>
- Good2Talk: 1-866-925-5454, <https://good2talk.ca/>
- The Walk-In Counselling Clinic: <https://walkincounselling.com>

Statement on Pandemic Measures

It is important to remember that COVID is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real. There are [a number of actions you can take](#) to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you're sick, washing your hands and maintaining proper respiratory and cough etiquette.

Feeling sick? Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you should follow Carleton's [symptom reporting protocols](#).

Masks: Masks are no longer mandatory in university buildings and facilities. However, we continue to recommend masking when indoors, particularly if physical distancing cannot be maintained. We are aware that personal preferences regarding optional mask use will vary greatly, and we ask that we all show consideration and care for each other during this transition.

Vaccines: While proof of vaccination is no longer required to access campus or participate in in-person Carleton activities, it may become necessary for the University to bring back proof of vaccination requirements on short notice if the situation and public health advice changes. Students are strongly encouraged to get a full course of vaccination, including booster doses as soon as they are eligible and submit their booster dose information in [cuScreen](#) as soon as possible. Please note that Carleton cannot guarantee that it will be able to offer virtual or hybrid learning options for those who are unable to attend the campus. All members of the Carleton community are required to follow requirements and guidelines regarding health and safety which may change from time to time. For the most recent

We're (still) in this together. If you're sick, don't come to class. I will understand & we'll make arrangements for you to make up the work.



information about Carleton's COVID-19 response and health and safety requirements please see the [University's COVID-19 website](#) and review the [Frequently Asked Questions \(FAQs\)](#). Should you have additional questions after reviewing, please contact covidinfo@carleton.ca.

Requests for Academic Accommodations

ACADEMIC ACCOMMODATION

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

Pregnancy obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form ([click here](#)).

Religious obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details [click here](#).

Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: <https://carleton.ca/equity/sexual-assault-support-services>

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation will be provided to students who compete or perform at the national or international level. Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

Let me know as far in advance
as you can & we'll
accommodate you.

Important Information

- Students must always retain a hard copy of all work that is submitted.
- All final grades are subject to the Dean's approval.
- For us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid CARLETON address. Therefore, in order to respond to your inquiries, please send all email from your Carleton CMail account. If you do not have or have yet to activate this account, you may wish to do so by visiting <http://carleton.ca/ccs/students/>
- The last day for academic withdrawal for Fall courses is November 15th, 2022.
- For a list of dates and deadlines, including holidays and exam dates, please visit: <https://calendar.carleton.ca/academicyear/>