# CGSC 3201 A Cognitive Processes

Fall 2021 V1.0

#### Instructor

John Logan / john.logan@carleton.ca

Office hours: Monday 1:05 - 2:25 PM (= +5 GMT) via Zoom (https://zoom.us/j/96213464893, passcode: 385101)

#### Class time & location

CGSC 3201 A is a hyflex course. This means that you can attend in-person (1:05-2:25 PM Tuesdays and Thursdays) on campus (101 Azrieli Theatre) or participate online via Zoom (https://zoom.us/j/96213464893, passcode: 385101). Classes will also be recorded and will be available via links located on the tabs for each week on the CGSC 3201 Brightspace page.

## **Prerequisites**

Third-year standing, and 0.5 credit in CGSC 2001 or PSYC 2700.

# **Course Objectives**

The topic of CGSC 3201 is human memory. We will focus on the major areas in memory research following the metaphor of information flow, from how the basic "machinery" works, to more "high level" topics like "fake news". Although we will focus mostly on behavioural data, we will also frequently cover data from cognitive neuroscience and modelling. At the completion of the course I expect you to have acquired a useful knowledge of how human memory works and the research methods used to study how memory works.

## Required Text

- Baddeley, Eysenck, & Anderson (2020). Memory (3rd edition), London: Psychology Press. Paperback version: ISBN 9781138326095 (https://www.routledge.com/Memory-3rd-Edition/Baddeley-Eysenck-Anderson/p/book/9781138326095). (You could also use the 2nd edition of the textbook, available as a paperback (ISBN 978-1848721845), which overlaps significantly with the more recent edition. Once caveat, though: occasional quiz questions may reflect information from the 3rd edition.)
- we will also use journal articles to focus on methods used in memory research; these are listed on the course Brightspace site for each week

### How You Will Be Evaluated

Your final grade will be based on 1) top 10/12 weekly online quizzes (5% X 10 = 50%), 2) a 1-page outline for a research proposal (10%), & 3) a 3500-word research proposal paper (40%).

- Weekly quizzes. Beginning in the 1st week of class, you will be evaluated with weekly online quizzes on Brightspace. The quizzes will be based on the textbook readings and the weekly journal article, plus what we have done in class. The quizzes will be short, with only 10 questions and are to be done independently (i.e., individually). Quizzes will be available 5:00 pm Thursdays through 11:59 PM Mondays; you will have 2 hours do each quiz.
- Research proposal. You will write a 3500-word APA-format research proposal that describes how you would set up an experiment(s) to answer a question from one of the areas within memory research that we cover in CGSC 3201. The paper will contain a literature review and a description of how your proposed research fills a void in the literature. Included in the final section of the introduction of your paper will be an empirically testable hypothesis that will allow you support or disconfirm a relevant theoretical position. The paper also will contain a methods section that describes the participants you will test, any stimuli and equipment you will use, and the procedure that you will use to test participants. You will write this paper in two stages, beginning with a 1-2 page outline (10%, due 11:59 PM October 14), followed by a final version (40%, due 11:59 PM December 3). More details on the format of the paper and how it will be graded will be provided in class.

## Late assignment policy

The course has generous deadlines that should be sufficient to allow you to complete quizzes and the outline/final paper on time.

Extensions to quiz and assignment deadlines will be permitted for illness, bereavement, or religion reasons. Other reasons will be considered on a case-by-case basis.

For Fall 2021, due to the COVID-19 pandemic, the Provost has directed that students seeking an academic accommodation for course work will not be required to produce a doctor's note or medical certificate. Instead, students should use the Medical Self-Declaration form at https://carleton.ca/registrar/wp-content/uploads/self-declaration.pdf.

# **Academic Integrity**

Carleton University expects all students to be aware of and follow its policy on academic integrity. See https://carlet on.ca/registrar/academic-integrity/ for detailed information about academic integrity. As applied to CGSC 3201, the primary issue that you must be aware of is unauthorized collaboration on quizzes and the final paper, and that any submitted work must be completed by you as a student in the class. Although I encourage you to talk to your fellow students about class content, including assignments, any work that you submit must be done by you.

# Regulations and Information Common to Undergraduate Cognitive Science Courses

#### REQUESTS FOR 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: 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 see the Student Guide.
- 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 see the Student Guide
- 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 the 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 the 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 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: carleton.ca/sexual-violence-support
- 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 must be provided to students who compete or perform at the national or international level. Please contact your instructor 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.

#### PETITIONS TO DEFER

Students unable to write a final examination because of illness or other circumstances beyond their control may apply within **three working days** to the Registrar's Office for permission to write a deferred examination. The request must be fully supported by the appropriate documentation. Only deferral petitions submitted to the Registrar's Office will be considered. See Undergraduate Calendar, Article 4.3.

#### WITHDRAWAL WITHOUT ACADEMIC PENALTY

The last day to withdraw from a Winter and Fall/Winter course, without academic penalty, is September 30, 2021. Students may withdraw on or before the last day of classes.

\*WDN: For students who withdraw after the full fee adjustment date in each term (noted in the Academic Year section of the Calendar each term) the term WDN will be a permanent notation that appears on their official transcript.

#### OFFICIAL FINAL EXAMINATION PERIOD

Fall courses: December 11-23, 2021 (may include evenings & Saturdays or Sundays) [note: CGSC 3201 A has no final exam ]

For more information on the important dates and deadlines of the academic year, consult the Carleton 2021-2022 Calendar.

#### **GRADING SYSTEM**

The grading system is described in the Undergraduate Calendar section 5.4.

#### **PLAGIARISM**

The University Senate defines plagiarism as "presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own." This can include:

- 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;
- submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings;
- failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks;
- handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs."

Plagiarism is a serious offence, which cannot be resolved directly with the course's instructor. The Associate Deans of the Faculty conduct 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 range from a mark of zero for the plagiarized work to a final grade of "F" for the course, and even suspension from all studies or expulsion from the University.

## Important Information

- Students must always retain a 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 https://carleton.ca/its/help-centre/email/#sect2

#### RESOURCES (613-520-2600, phone ext.)

NOTE: due to COVID-19, some of these resources may only be accessible online

Resource	Location
Department of Cognitive Science (2522) Registrars Office (3500) Centre for Student Academic Support (3822)	2201 Dunton Tower 300 Tory 4th floor Library
Academic Advising Centre (7850) Paul Menton Centre (6608)	302 Tory 501 University Centre
Writing Services (3822) Career Services (6611)	4th floor Library 401 Tory

#### **ACADEMIC ADVISING**

Please email cogsci@carleton.ca for advising. Note that the Department of Cognitive Science will not be holding on-campus advising sessions during the Fall 2021 term due to the pandemic.

#### ADDITIONAL INFORMATION REGARDING COVID-19

- All members of the Carleton community are required to follow COVID-19 prevention measures and all mandatory
  public health requirements (e.g., wearing a mask, physical distancing, hand hygiene, respiratory and cough etiquette) and mandatory self-screening (https://carleton.ca/covid19/covid-19-symptom-reporting/) prior to coming to campus daily.
- If you feel ill or exhibit COVID-19 symptoms while on campus or in class, please leave campus immediately, self-isolate, and complete the mandatory symptom reporting tool (https://carleton.ca/covid19/screening/). For purposes of contact tracing, attendance will be recorded in all classes and labs. Participants can check in using posted QR codes through the cuScreen platform where provided. Students who do not have a smartphone will be required to complete a paper process as indicated on the COVID-19 website (https://carleton.ca/covid19/).
- All members of the Carleton community are required to follow guidelines regarding safe movement and seating
  on campus (e.g. directional arrows, designated entrances and exits, designated seats that maintain physical distancing). In order to avoid congestion, allow all previous occupants to fully vacate a classroom before entering.
  No food or drinks are permitted in any classrooms or labs.
- For the most recent information about Carleton's COVID-19 response and required measures, please see the University's COVID-19 webpage (https://carleton.ca/covid19/) and review the Frequently Asked Questions (FAQs) (https://carleton.ca/covid19/faq/). Should you have additional questions after reviewing, please contact covidinfo@carleton.ca
- Please note that failure to comply with University policies and mandatory public health requirements, and endangering the safety of others are considered misconduct under the Student Rights and Responsibilities Policy (https://carleton.ca/studentaffairs/student-rights-and-responsibilities/). Failure to comply with Carleton's COVID-19 procedures may lead to supplementary action involving Campus Safety and/or Student Affairs.

#### Class Schedule

Week	Date	Topic	Activity
1	September 9	Intro and History	Quiz 1 (opens 5:00 PM Sept 9; closes 11:59 PM Sept 13)
2	September 14 & 16	Memory and the brain	Quiz 2 (opens 5:00 PM Sept 16; closes 11:59 PM Sept 20)
3	September 21 & 23	Short-term memory	Quiz 3 (opens 5:00 PM Sept 23; closes 11:59 PM Sept 27)
4	September 28 & 30	Working memory	Quiz 4 (opens 5:00 PM Sept 30; closes 11:59 PM Oct 4)
5	October 5 & 7	Learning	Quiz 5 (opens 5:00 PM Oct 7; closes 11:59 PM Oct 12)
6	October 12 & 14	Episodic memory	Quiz 5 (opens 5:00 PM Oct 14; closes 11:59 PM Oct 19); research proposal outline due 11:59 PM Oct 14
7	October 19 & 21	Semantic memory	Quiz 6 (opens 5:00 PM Oct 21; closes 11:59 PM Nov 1)
	October 25-29	Fall Break - no classes	

Week	Date	Topic	Activity
8	November 2 & 4	Retrieval	Quiz 7 (opens 5:00 PM Nov 4; closes 11:59 PM Nov 8)
9	November 9 & 11	Incidental forgetting & Motivated forgetting	Quiz 8 (opens 5:00 PM Nov 11; closes 11:59 PM Nov 15)
10	November 16 & 18	Autobiographical memory & Prospective memory	Quiz 9 (opens 5:00 PM Nov 18; closes 11:59 PM Nov 22)
11	November 23 & 25	Memory in childhood & aging & Amnesia	Quiz 10 (opens 5:00 PM Nov 25; closes 11:59 PM Nov 29)
12	November 30 & December 2	Eye-witness testimony	Quiz 11 (opens 5:00 PM Dec 2; closes 11:59 PM Dec 6); research proposal due 11:59 PM Dec 3
13	December 7 & 9	"Fake news"	Quiz 12 (opens 5:00 PM Dec 9, closes 11:59 PM Dec 10 [note Quiz 12 is only open for 24 hours!]

## Critical Reading Checklist (from http://unilearning.uow.edu.au/reading/2b.html)

The questions on this checklist are designed as a guide to the process of reading academic texts critically and analytically. You can apply these questions to most academic texts.

- What is the author's approach/perspecttive?
- Is there another theoretical or philosophical approach which might have been taken?
- Who/what is left out of the text?
- Does the author write from an insider's/outsider's perspective? How does this affect what is included/excluded from the text?
- Do you agree with the points the author is making?
- Are the points made by the author supported by evidence?
- Is the evidence anecdotal or is the evidence the result of scientific research?
- Is the evidence referenced? Is it recent?
- Does the writer present opinion as fact?
- Does the writer use valid reasoning?
- Are any assumptions the writer has made clear to the reader?
- Does the writer oversimplify complex ideas?
- Does the writer make unsupported generalizations?
- Does the writer make reasonable inferences?
- Does the writer represent the ideas of others accurately? Fairly?
- Does the writer distort the ideas of others or present them out of context?
- Does the writer use unfair persuasion tactics such as appeals to prejudice or fear?
- Does the writer present a balanced picture of the issue?
- How would you characterize the writer's tone? How does the tone affect your response to the text?
- Does the writer's language, tone, or choice of examples reveal any biases? If so, do the writer's biases reduce his or her credibility?
- Do your reactions reveal biases in your own thinking?
- Does the text challenge your own values, beliefs, and assumptions?
- If the paper contains statistics, graphs, illustrations etc, are these adequately introduced and discussed and do they contribute to the author's argument?

Footnote: The questions on this checklist are adapted from: Kirszner, L.G., & Mandell, S.R. (1992). *The Holt handbook,* Sydney: Harcourt Brace College Publishers, pp. 100-117.

The questions below are some that are especially relevant to research articles.

• Are the limitations of the procedures clear?

- Is the methodology valid? (e.g., size of the sample, method of sampling used)
- Are the results consistent with the objectives?
- Are the results verifiable?
- Are the claims the author makes about his or her own research internally consistent, that is, are the aims, method, results and conclusion of the research logically consistent with each other (i.e., what is argued on the basis of the research is supported by the results; the methodology allows the aims of the research to be achieved)?
- Are the diagrams clear to the reader?

Footnote: These critical questions are adapted from: (1992) *Journal of Construction Engineering and Management,* 18, 1-2.

## Course outline version history

• v.1.0 original version (August 20, 2021)