



Theories in Cognitive Science - CGSC 2001B

Carleton University, Fall 2022

Sept. 7th — Dec. 9th

Day/Time: Wed. & Fri. 11:35 - 12:55 EST

Format: In person

Location: Tory Building - room 202

Course website: <https://brightspace.carleton.ca/>

Instructor: Brendan Conway-Smith

Office Hours: by appointment

E-mail: brendan.conwaysmith@carleton.ca

Course Description

Cognitive Science combines psychology, neuroscience, artificial intelligence, and philosophy to study how people think. Students will learn how cognitive scientists approach problems in a diverse, integrated manner to understand how humans process information.

This course serves as a core introductory credit for all Cognitive Science majors, but is also intended to be accessible to students in other disciplines, whether or not they are connected to Cognitive Science. **Prerequisites:** second-year standing and FYSM1607 or CGSC1001.

Asynchronous material is posted on Brightspace. The lectures and posted material will comprise the content of midterms.

Learning outcomes

- An understanding of how scientific theories are employed within cognitive science.
- An understanding of the history and principles a computational approach to cognition.
- Knowledge of how to apply information-processing explanations to the mind & brain.
- Students must be able to apply the course material to current issues in society.

Course modality & technical requirements

This course contains online material, with mandatory asynchronous components (weekly modules and assignments). Consult Carleton's [Technical Specs for New Students webpage](#) to ensure you have the minimum technical requirements to participate in the class. You are strongly discouraged from trying to complete this course on a mobile phone device. For computer programs, note that Carleton students have free access to the [Office 365 suite](#).

Readings

The readings for this course include a range of scientific articles, media, and textbook chapters. Readings are assigned on a weekly basis and available on the Brightspace webpage.

Textbook (link to text on Brightspace):

Bermudez, Jose Luis (2014). Cognitive Science: An Introduction to the Science of Mind, 2nd Edition. Cambridge Press, New York.

E-mail Protocol

The best forum for answering questions is on the Brightspace forum, which will be answered quickly by peers, teaching assistants, or by the instructor. I am also available for questions after class. I will respond to e-mails within 48 hours (excluding weekends and holidays) so patience is appreciated. E-mails are best kept *short* and questions simple.

Course Schedule*

*This schedule is tentative and subject to change

DATE	LECTURE
Week 1 (Sept. 7, 9)	Introduction and History
Week 2 (Sept. 14, 16)	History of Theory
Week 3 (Sept. 21, 23)	Brain & Mind
Week 4 (Sept. 28, 30)	Unification Challenge
Week 5 (Oct. 5, 7)	Philosophy & Computation
Mid-term 1 (Tue. Oct. 11)	open at 7:00pm EST (alt. time 7:00am)
Week 6 (Oct. 12, 14)	Cognitive Modeling and Architectures
Week 7 (Oct. 19, 21)	Metacognition
Fall break (24-28)	
Week 8 (Nov. 2, 4)	Social Cognition
Week 9 (Nov. 9, 11)	Affect
Mid-term 2 (Mon. Nov. 14)	open at 7:00pm EST (alt. time 7:00am)
Week 10 (Nov. 16, 18)	Cognitive Psychology
Week 11 (Nov. 23, 25)	Decision Making
Week 12 (Nov. 30, Dec. 2)	Evolutionary Approaches
Week 13 (Dec. 7)	Review
Final exam due	Dec. 22nd, 11:59pm

For other important dates and deadlines
<https://calendar.carleton.ca/academicyear/>

Basis of evaluation

Mid term 1 (30%)

Mid term 2 (30%)

Final exam (40%)

Mid terms

Each midterm will involve multiple choice questions to be completed on Brightspace. Multiple choice questions are based on lectures and the reading material posted online. The midterms are open from 7:00pm - 8:30pm EST. If eligible, the alternate time will be 7:00am on the same day.

The test will be open for 1.5 hours. You may start anytime within that period to open the test. Once you start the test, you have 1 hour to complete 45 questions. No matter when you start, when the hour is up the test shuts down. *For example, if the test opens at 11:30am, and you start at 11:45, you will be cut off at 12:45.* You have only one chance to answer each question. You may not go back and change a previous answer. The midterms must be completed individually.

If this time conflicts with your course schedule or work please email the instructor to arrange an alternate time a.s.ap. Glitches, bad wi-fi, or other technological problems on the date of the midterm will not be acceptable reasons for missing the test.

If students miss a test for extraordinary reasons, they must provide proper documentation within 48hrs. Note that you will be permitted to complete the missed test **only** under conditions of documented illness, bereavement, or religion. If documentation is not provided, a grade of zero will be recorded for the missed test.

Final Exam

The final take-home exam will be discussed in class. It will be based on the accumulated readings and lecture material throughout the entire term. Detailed instructions will be provided by the instructor. It will be due on the last day of exams and is subject to change. The final exam will be worth 40% of the final grade.

Late policy

Late assignments that are ineligible for a deferral automatically earn a grade of zero. Eligible students are those who have communicated in advance, have PMC accommodations, or have legitimate medical issues.

Course Expectations & Policies

Civility and Privacy: The University is a place of open discussion and free inquiry. It is expected that you will be respectful and considerate of your classmates and our learning environment will be free from discrimination and harassment.

Academic regulations

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website:
<https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/>

In accordance with the Carleton University Undergraduate Calendar (p 34), the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100	B+ = 77-79	C+ = 67-69	D+ = 57-59
A = 85-89	B = 73-76	C = 63-66	D = 53-56
A - = 80-84	B - = 70-72	C - = 60-62	D - = 50-52
F = Below 50			

Grades entered by Registrar:

WDN = Withdrawn from the course

DEF = Deferred

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.

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/>

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 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.

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>

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/>

