

FYSM 1607 B Cognitive Science: Thinking and Knowing
Fall/Winter 2023-24

Room: Nideyinàn (former UC) 378 (Fall)

Loeb B243 (Winter)

Meeting Times: Tuesdays/Thursdays 8:35 – 9:55

Instructor Information

Course instructor: Salah Mekhalalati (he/him)

E-mail: salahmekhalalati@email.carleton.ca

Please email me using your Carleton email address.

Office: DT 2224

Office hours: By appointment (in person or Zoom)

Teaching Assistant Information:

Course Information

Fall 2023, September 06, 2023 – December 08, 2023

Winter 2024, January 08, 2024 to April 10, 2024

Course Title: Cognitive Science: Thinking and Knowing

Course number: 1607 B

Delivery: In-Person

Department: Cognitive Science

Course Website:

Brightspace will be used for access to the weekly course content, grades, announcements, etc. It is recommended that students regularly check Brightspace for course updates and other information. Students are responsible for keeping current with the information on Brightspace.

Official Course Description

Interdisciplinary examination of discoveries in linguistics, psychology, philosophy, and computer science concerning the question “What is cognition”? Issues may include the mind-brain controversy, the role of language in thought, and artificial versus natural intelligence.

Course Text

Articles and other course materials will be accessed via Google Scholar, Carleton’s Library Portal, or links provided on Brightspace.

Disclaimer: I reserve the right to change the readings or topics assigned. Changes will not add substantial workload.

Evaluation

Criteria	Percentage
Participation/Attendance	20
Writing Assignments	20
Term Tests (3)	40 (10 for lowest grade, 15% for rest)
Group Research Project	20 (10 for paper, 10 for poster)
Total	100

Participation

As this course is limited to a maximum of 30 students, the nature of the course is meant to be more engaging and discussion-oriented, leaving more room for reflection and commitment in class. Attendance is necessary to learn and engage with the course material. You are encouraged to ask questions and take part in class discussions.

Writing Assignments

Throughout the course, you are expected to reflect on the topics covered in the readings and lectures. You are to summarize and reflect on an empirical study and theoretical paper on a four-to-five-page (double-spaced) Word document that focuses on a particular reading that will be assigned. There are **two** writing assignments to be turned in for this grading category. Each writing assignment will have two drafts to be turned in, with the first written to the best of your ability, and the final to refine and incorporate comments by the instructor.

Term Tests

You will be tested on the material presented in lecture, weekly content, and course readings to date. There are three in-person tests, which will be written on designated dates spread out throughout the fall and winter terms. Questions on the tests will be comprised of a mixture of essay-format, short and long-answers. We will review concepts before each test and there will be a sample of questions posted on Brightspace ahead of time. The lowest test grade will only be worth 10% while the other two will be worth 15% of your final grade.

Group Research Project

During the Winter term, you will comprise of groups of 3-4, to work on a topic that is controversial or state of the art in cognitive science. There are two components to the project, a research paper and a poster. Details will be provided, but the final paper (7-9 pages) needs to have a proper introduction, body paragraphs and a conclusion, which focuses on a topic your group finds interesting and can make a proper assessment or critical position on. The poster will serve as a visual representation of your work, and we will have a designated time and place to have it presented. There will be time for consultation on the project throughout the term.

NOTES

1. The standard time for returning graded assignments is two weeks from the date of the assignment. If additional time is needed for grading, an announcement will be made on the course website.
2. A make-up test will be provided only upon presentation of verifiable documentation (e.g., a doctor's note). A failure to provide one will result in a zero. It is the student's responsibility to contact the instructor if a test is missed. Students must contact the instructor within 24 hours of a missed test to schedule a make-up. This is the student's responsibility. Arrangements must be made directly with the instructor. There are no exceptions.
3. Student or professor materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).
4. Students should keep up with course readings as per the schedule below. Students will be responsible in managing their time in approaching textbook material and concepts selected by the instructor. The instructor is available throughout the semester to meet with students. It is strongly recommended that students consult with him as needed.
5. Reweighting course material is not possible.
6. All evaluations (except for Tests) will be submitted through Brightspace. All feedback will be provided through Brightspace. Save copies of your work and back up your files.

Class Schedule:

Class Date (Fall 2023) (Winter 2024)	Topic	Readings Covered
September 7th	Class Introduction	Syllabus
September 12th	Introduction to Cognitive Science	
September 14th	Introduction to Cognitive Science	
September 19th	Representations and Computational Theory of	Cognitive Science Reading

	Mind	
September 21st	Representations and Computational Theory of Mind	
September 26th	Cognitive Psychology Introduction	Cognitive Psychology Reading
September 28th	How to interpret/summarize a Cognitive Psych Paper	
October 3rd	Cognitive Psych	
October 5th	Cognitive Psych, Assignment #1 Due (draft)	
October 10th	Linguistics	Linguistics Reading
October 12th	Linguistics	
October 17th	Neuroscience	Neuroscience Reading
October 19th	Neuroscience, Assignment #1 Due (final)	
October 24th	Fall Break/No Class	
October 26th	Fall Break/No Class	
October 31st	Test Review	
November 2nd	Test #1 (in class)	
November 7th	Philosophy of Mind	Philosophy Reading
November 9th	Philosophy of Mind	
November 14th	Philosophy of Mind	

November 16th	Philosophy of Mind	
November 21st	Epistemology/Skepticism	Philosophy Reading #2
November 23rd	Epistemology/Skepticism	
November 28 th	Artificial Intelligence	AI Reading
November 30th	Artificial Intelligence	
December 5th	Review	
December 7th	No Class/ Assignment #2 (draft) due	
January 9th	Welcome Back/Review	
January 11th	Guide to Researching in Cog Sci/Group Formations	
January 16th	Consciousness/ Assignment #2 (final) due	
January 18th	Consciousness	
January 23rd	Personal Identity	Philosophy Reading #3
January 25th	Personal Identity	
January 30th	Test Review	
February 1st	Test #2 (in class)	
February 6th	Animal Cognition	Cog Sci Reading #2
February 8th	Animal Cognition	
February 13th	Cognitive Architectures	Cognitive Architecture Reading

February 15th	Cognitive Architectures	
February 20th	Winter Break/No Class	
February 22nd	Winter Break/No Class	
February 27th	Mindfulness and Religion	Philosophy Reading #4
February 29th	Mindfulness and Religion	
March 5th	Emotion	
March 7th	Emotion	
March 12th	Free Will/Determinism Group Paper Due	
March 14th	Free Will/Determinism	
March 19th	Mental Disorders and Psychiatry	Neuroscience Reading #2
March 21st	Mental Disorders and Psychiatry	
March 26th	Review	
March 28th	Test #3 (in class)	
April 2nd	Future Directions in Cognitive Science	
April 4th	Poster Session (Location TBA)	
April 9th	No Class	

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, including the unauthorized use of generative AI tools (e.g., ChatGPT);
- 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>

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, please request your accommodations for this course through the [Ventus Student Portal](#) 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*). Requests made within two weeks will be reviewed on a case-by-case basis. For final exams, the deadlines to request accommodations are published in the [University Academic Calendars](#). 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.
- Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean
- 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/>
- November 15, 2023: Last day for academic withdrawal from full fall and late fall classes
- March 15, 2024: Last day for academic withdrawal from full winter, late winter and fall/winter courses.

For a list of dates and deadlines, including holidays and exam dates, please visit:

<https://calendar.carleton.ca/academicyear/>