

**Issues in Cognitive Science**  
**(CGSC5100)**

Carleton University, Fall 2020

**Day/Time:** Wednesdays, 11:35am – 2:25pm **Format:** Online Synchronous (Zoom)

Prof. Myrto Mylopoulos

**Office Hours:** Wednesdays, 2:30pm-3:30pm; Thursdays, 1:30pm-2:30pm; and by appointment

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**Course Description**

In this course, we will examine key debates in cognitive science, both classic and contemporary, across a range of topics that are representative of the field. These will include: mental architecture, perception, language, consciousness, AI, action, moral psychology, animal cognition, emotion, concepts, and embodied cognition. Our engagement with these specific debates will serve the overarching aim of understanding how interdisciplinary research and theorizing in cognitive science are conducted, what progress the field has made since its inception, and what future directions it might take.

**Course Objectives**

Our aim in this course will be to support and develop the following skills:

- Ability to critically reflect on key theoretical claims and empirical findings in cognitive science.
- Ability to read journal articles in a careful, active, and engaged manner.
- Ability to articulate in writing a critical viewpoint on a research paper.
- Ability to draft a research proposal fit for a Master's scholarship application.
- Ability to respond to a professional talk in writing.
- Ability to present on a research paper and guide a group discussion of its content.
- Ability to clearly and effectively argue in favour of a position on a relevant debate within cognitive science in a well-researched paper.

**Course Materials**

- All required readings and additional resources will be made available on cuLearn.

I also recommend the following textbooks for reference:

- Bermúdez, José Luis. 2020. *Cognitive Science: An Introduction to the Science of the Mind*. Third edition. CUP.
- Cain, M.J. 2016. *The Philosophy of Cognitive Science*. Polity Press.
- Friedenberg, Jay and Gordon Silverman. 2015. *Cognitive Science: An Introduction to the Study of Mind*. Third edition. Sage Publications.
- Kolak, Daniel, William Hirstein, and Peter Mandik. 2006. *Cognitive Science: An Introduction to Mind and Brain*. Taylor & Francis.

### **Virtual Classroom**

We will hold class in a virtual setting at our allotted course day/time each week. We will use Zoom (<https://zoom.us/>) as our platform. A link to our classroom will be made available each week with a secure password. All of our class sessions will be recorded and made available on cuLearn.

#### **Zoom Guidelines:**

- Here is a link to a short web tutorial on how to use Zoom and its features as a student in the classroom setting:  
<https://www.youtube.com/watch?v=wbnyQwsVbiY>
- For best performance, I recommend using the Zoom desktop client available here: <https://zoom.us/download>. You may also use Zoom through your browser.
- Please turn your camera on for the duration of the class, unless something prevents you from doing so (connectivity issues, etc.), in which case just let me know. Make sure it's at eye-level.
- Set your microphone to 'mute' unless you're talking, so as to reduce background noise.
- Make sure you sit in a place that is as well-lit and quiet as possible.
- Be mindful of what's going on behind you. You may want to have a solid wall behind you or turn on the virtual background.

### **Course Requirements**

Course Component	Percentage of Final Grade
Reading Assignments (Perusall)	10%
Class Participation (Zoom)	10%
Critical Reading Responses (x5)	25%
Research Proposal	5%
Colloquium Response	5%

Class Presentation	15%
Term Paper (incl. Abstract)	30%

### Reading Assignments

Readings will be assigned for every class session except the first. All readings are required, except for those marked as 'background' or 'optional' on the course syllabus. While optional, you are strongly encouraged to do these readings, as they'll help both to fill in the background for and expand on some of the material we'll be covering in class.

To work through the readings, we will be using Perusall, a collaborative e-reading platform that enables you to tackle the readings together as a group in between our class sessions. The reading assignments you complete on Perusall will be worth **10%** of your final grade. They will be due the day before class (Tuesdays) by 5pm.

We will discuss further details and a grading rubric on the first day of class. Reading assignments on Perusall will only be counted from week 3 onwards, to allow you to try out the platform and gain some familiarity with it first.

To register for a free Perusall account, go here: <https://app.perusall.com/> For info on how to use it, please see: <https://support.perusall.com/hc/en-us/categories/360002173133-Students>

### Class Participation

Participation is a key component of this seminar and worth **10%** of your final grade.

There are four main ways to earn your participation grade:

1. By attending class and contributing to our weekly class discussion. You can do so by raising questions pertaining to the course material, answering questions asked by myself or one of your classmates, and generally being active and engaged throughout the duration of each class.
2. By contributing to the weekly class discussion about the course readings on Perusall (especially going above and beyond what is strictly required for the reading assignment).
3. By asking questions during the Q&A session after a class presentation.
4. By attending office hours to discuss course material.

If for any reason you expect to miss a class, I would appreciate your sending me a quick note letting me know.

### Critical Reading Responses

One of the main objective of this course is to critically engage with theoretical claims and empirical findings presented in the readings and their implications. As such, you will be asked to write critical responses to the weekly readings (choose one to focus on). You may write **up to six** critical reading responses (max. 500 words each) over the course of the semester (**starting in week 2**). Only your **best five** responses will be counted. These will each be worth 5% of your final grade for a total of 25%.

The responses are intended to give you an opportunity to critically reflect, in structured writing, on the main findings, claims, arguments, or theories you encounter in the readings. As such, **you should not merely summarize** the material you are addressing, though of course some summary will be necessary, but rather **share your own reflections on it**.

We will go over a marking rubric in class and some general suggestions for how you might approach these responses.

Responses will be submitted via cuLearn and are due **by 5pm on the day before the class** for which the relevant reading is assigned (Tuesday). (Earlier than that is of course fine, too.) **Late submissions will not be accepted.**

You are encouraged to use ideas you develop in these responses as the basis for your term paper.

#### *Advice for How to Read Research Papers*

The following websites may offer some useful guidance for how to read research papers in different areas of cognitive science:

<https://blizzard.cs.uwaterloo.ca/keshav/home/Papers/data/07/paper-reading.pdf>

<http://www.dfki.de/~sonntag/courses/SS14/How-to-Read-a-Research-Paper.html>

<http://www.jimpryor.net/teaching/guidelines/reading.html>

#### **Research Proposal**

You will write a draft research proposal according to the guidelines specified by the Ontario Graduate Scholarships (OGS) Program. The due date for this is **Monday, November 2<sup>nd</sup>**. (This is to give you enough time to submit the final, polished version by the Carleton **November 18<sup>th</sup>** deadline.) We will discuss further details in class. In the meantime, you can find relevant information here:

<https://gradstudents.carleton.ca/awards-and-funding/external-awards/ogs/>

#### **Colloquium Response**

The weekly colloquium talk (to be held online) is an excellent way to learn what cognitive scientists (often in the local area) are currently working on, to engage with members of the department, and to practice coming up with well-formulated questions in response to research. **You are strongly encouraged to attend each talk. (I will post a link to the colloquium schedule once it is up.)**

You will select **one** talk to write a response paper on (using the same guidelines as those for our reading responses, except the questions you formulate should be ones that it would be appropriate to ask the speaker). This is worth **5%** of your final grade.

### **Class Presentations**

Starting in **week 3**, each of you will have the opportunity to do a virtual class presentation on a topic of your choice. This is to give you the chance to explore some research areas that are not included in the planned course schedule, or further examine ones that are. This is worth **20%** of your final grade. You will sign up for presentation slots on cuLearn on a first-come, first-served basis.

Presentations will be approximately 20 mins. with 10 mins. for Q&A.

Requirements:

- (i) Find one research article on your topic to serve as the basis of your presentation.
- (ii) Prepare a handout (3-4 pages) and/or slides that will guide the class through your presentation, including some background on your topic, a general summary of the research article you've chosen, and some discussion questions for the class.

You should arrange to meet with me **at least one week** before your presentation date to discuss which article you will be using. If you would like further guidance on how to decide on a topic/select an article, please don't hesitate to reach out.

A marking rubric for the presentations will be made available on cuLearn.

### **Term Paper**

You are required to write one term paper (**15-20 pages**) to be submitted on cuLearn on **Friday, December 11<sup>th</sup>**. It will be worth **30%** of your final grade. Late submissions will be penalized **5% per day or part day**, including weekends, except in the case of severe illness or emergency, with appropriate documentation (where applicable).

You will also write an abstract (150 – 250 words) for this paper, to be submitted on cuLearn no later than **Monday, November 23<sup>rd</sup>**. This will be worth 5% of your paper grade, and will be graded on the basis of completion only (pass/fail).

We will discuss further instructions/guidelines for the final paper closer to the due date.

### **Online Office Hours and Availability**

My regular office hours are as stated at the beginning of this document and will be held online over Zoom. (A link will be made available each week on cuLearn.) I'm happy to meet you online on other days/times as well—just make arrangements with me over email.

I will do my best to respond to your emails within 24 hours, but I may be a bit slower on weekends and holidays. If you think your message will require a lengthy reply from me, please arrange an online appointment instead.

### **Schedule of Course Topics**

\*\*\*May be revised. Check cuLearn for most updated version.\*\*\*

\*\*\*Specific Readings TBA\*\*\*

Week 1 (Sept. 9): Introduction

Week 2 (Sept. 16): Mental Architecture

Week 3 (Sept. 23): Perception

Week 4 (Sept. 30): Action

Week 5 (Oct. 7): Consciousness

Week 6 (Oct. 14): Artificial Intelligence

Week 7 (Oct. 21): Concepts

Week 8 (Oct. 28): No Class (Fall Break)

Week 9 (Nov. 4): Language

Week 10 (Nov. 11): Emotion

**Week 11 (Nov. 18): Animal Cognition**

**Week 12 (Nov. 25): Embodied Cognition**

**Week 13 (Dec. 2): Moral Psychology**

**Week 14 (Friday, Dec. 9): TBA**

## Additional Information

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

### Academic Regulations, Accommodations, Etc.

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:

#### *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 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 PMC at 613 - 520 - 6608 or [pmc@carleton.ca](mailto: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 an accommodation from PMC, meet with me to ensure accommodations arrangements are made. Please consult the PMC website for the deadlines to request accommodations for the formally - scheduled exam (if applicable).

### Plagiarism



Plagiarism in any form will not be tolerated. The University Senate defines plagiarism as “presenting, whether intentionally 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 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.