

Representation in Cognitive Science
(CGSC4900B)

Carleton University, Winter 2021

Day/Time: Mondays, 2:35pm – 5:25pm **Location:** TBA

Prof. Myrto Mylopoulos

Office: 3A47 Paterson Hall **Office Telephone:** 613-520-2600 x3943

Office Hours: Mondays, 1:30pm-2:30pm; and by appointment

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Course Description

At the heart of cognitive science is the hypothesis that cognition can be understood as a series of computations performed over representational structures. There is widespread disagreement, however, regarding how to understand the nature of the representations involved, and how to properly account for their meaning or content. In this course, we will examine a range of theories attempting to shed light on these two central questions in cognitive science from a broadly philosophical perspective.

Course Objectives

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

- An understanding of key issues surrounding the nature of representation in cognitive science.
- An ability to articulate a critical viewpoint on a text.
- An ability to guide a critical group discussion on a reading.
- An ability to clearly and effectively argue in favour of a position on a relevant debate within the representation literature in a well-researched term paper.

Course Materials

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

Course Requirements

Course Component	Percentage of Final Grade
Reading Assignments (Perusall)	20%
Class Participation	10%
Critical Reading Responses (x6)	30%
Class Presentation	10%
Term Paper (Incl. abstract worth 5%)	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 **20%** of your final grade. They will be due the day before class (Sundays) 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 course and worth **10%** of your final grade.

There are four main ways to earn points for participation:

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 class, I would appreciate your sending me a quick note letting me know.

Critical Reading Responses

You may write **up to seven** critical reading responses (max. 500 words each) over the course of the semester (starting in week 2). Only your **best six** responses will be counted. These will each be worth **5%** of your final grade for a total of **30%**.

The responses are intended to give you an opportunity to critically reflect, in structured writing, on the main claims, arguments, or theories you encounter in the readings. (You may wish to use discussion activity on Perusall as a springboard for these responses.) As such, **you should not merely summarize** the material you are addressing, though of course some summary will be necessary, but rather **evaluate** and **expand** on it.

I will go over a grading rubric in class and some general guidelines for how you might approach these responses.

Responses will be submitted via cuLearn and are due **by 5pm on the day before (Sunday)** the start of the class for which the relevant reading is assigned. **Late submissions will not be accepted.**

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

Class Presentation

Starting in **week 3**, each of you will have the opportunity to do a class presentation on some aspect of the assigned readings. This is worth **20%** of your final grade.

You will sign up for presentation slots on cuLearn on a first-come, first-served basis.

You will select one of the weekly readings to present on and **prepare a handout and/or slides** for the class (see below for further guidelines). We will have one presentation per class, typically during the second half of each class.

You should e-mail or arrange to meet with me no later than one week before your presentation date with an outline of what you plan to discuss.

Guidelines for the presentation content:

- For the **expository** portion of the presentation, you should provide a general summary of the article that addresses the following questions: What is the main thesis for which the author is arguing? What is the relevant background/context within which this argument is being made? What is the structure of the main argument?
- For the **critical** portion of the presentation, you should include 2-3 critical points. They may address questions like the following: Are there weaknesses you've identified in the author's overall argument? Are there counterexamples to main claims that they have failed to consider? Are there ways the author might strengthen the case they make for their view?
- For the **discussion** portion of the presentation, you should prepare a set of three questions for the class to discuss.

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, April 9th**. It will be worth **30%** of your final grade. Late submissions will be penalized 5% per day, including weekends, except in the case of severe illness or emergency with appropriate documentation (where applicable).

You are required to write an abstract (**150 – 250 words**) for this paper, to be submitted on cuLearn no later than **Monday, March 15th**. 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 and a marking rubric closer to the due date.

Office Hours and Availability

My regular office hours are as stated at the beginning of this document. I'm happy to meet you 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.

Course Topics

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

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

Week 1 (Jan. 11): Introduction

Week 2 (Jan. 18): The Representational Theory of Mind

Week 3 (Jan. 25): Propositional Attitudes

Week 4 (Feb. 1): Conceptual and Non-Conceptual Content

Week 5 (Feb. 8): Representations and Consciousness

Week 6 (Feb. 15): No Class (Winter Break)

Week 7 (Feb. 22): Representational Content: Assymmetric Dependency Theories

Week 8 (March 1): Representational Content: Teleological Theories

Week 9 (March 8): Representational Content: Functional Theories

Week 10 (March 15): Representational Content: Phenomenal Intentionality Theories

Week 11 (March 22): Externalism vs. Internalism

Week 12 (March 29): Computational Theory of Mind: Classicism vs. Connectionism

Week 13 (April 5): 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 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.