

**PHILOSOPHY OF COGNITIVE SCIENCE AND ARTIFICIAL  
INTELLIGENCE/PHILOSOPHY & COGNITIVE SCIENCE  
PHIL3501/CGSC3004**

Carleton University, Winter 2016

**Day/Time:** Thursdays, 2:35pm – 5:25pm **Location:** Dunton Tower 2203

Dr. Myrto Mylopoulos

**Office:** 3A47 Paterson Hall **Office Telephone:** 613-520-2600 x3943  
**Office Hours:** Tuesdays and Thursdays, 12pm – 2pm (and by appointment)  
**E-mail:** [Myrto.Mylopoulos@carleton.ca](mailto:Myrto.Mylopoulos@carleton.ca)

**Course Description**

Cognitive science is the interdisciplinary study of the mind, with contributions from philosophy, psychology, neuroscience, linguistics, artificial intelligence, and anthropology. This course will examine foundational philosophical issues and questions that arise within this field and guide it in important ways. Topics include: mental representation, cognitive architecture, artificial intelligence, action, perception, emotion, and consciousness. We will consider these topics by engaging with influential classical and contemporary readings in philosophy, as well as empirical research.

**Course Objectives**

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

- An understanding of foundational philosophical issues in cognitive science.
- A familiarity with current debates in cognitive science with which philosophers have directly engaged.
- An ability to examine empirical work from within a broader theoretical framework.
- An ability to articulate a critical viewpoint on an issue clearly and effectively in both written and oral communication.

**Course Materials**

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

**Course Requirements**

Course Component	Percentage of Final Grade
Midterm	15%
Critical Reading Responses (x5)	25%
Term Paper	30%
Final Exam	30%

## Readings

Readings will be assigned for every class session except the first and last classes and the day of the midterm. All readings are required, except for those marked as '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. Please ensure you complete all required readings for a class session before that session. Come prepared to discuss them.

## Critical Reading Responses

You will write **up to seven** critical reading responses (350 – 500 words each) over the course of the semester (due starting in week 3). Only your **best five** responses will be counted. These are worth **25%** of your final grade.

These responses are intended to give you an opportunity to critically reflect, in writing, on the main claims, arguments, or theories you encounter in the lecture/readings. 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 **before** the start of class that **follows** the class for which the relevant reading was covered/assigned. Late responses will not be accepted.

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

## Term Paper

You will write one term paper in this course (**2250 – 2500 words**). This is tentatively due on **March 31st** and worth **30%** of your final grade.

We will discuss guidelines for the term paper in class two to three weeks in advance of the due date.

## Midterm Exam

The midterm exam will be a combination of multiple choice and written answer questions. It will be held on February 11 and worth **15%** of your final grade.

We will discuss in more detail the format and material to be covered at least two weeks in advance of the midterm exam date.

## **Final Exam**

The final exam will be a combination of multiple choice and written answer questions. It will be held during the final exam period in April and it will be worth **30%** of your final grade.

We will discuss in more detail the format and material to be covered at least two weeks in advance of the final exam date.

## **Class Attendance**

Attendance is mandatory. You are expected to arrive to each class on time and to be present and engaged for the entire duration of the class. If you are excessively absent (more than twice) without a documented reason, your final grade will go down by one letter “step” (e.g., A- to B+). A sign-in sheet will be passed around at the beginning of each class.

If you miss class due to religious or medical reasons, you will not be penalized, but you must provide proper documentation.

For any class you miss for whatever reason, you are responsible for the readings and for catching up on the lecture material for that day.

## **Participation**

Participation is a key component of this course. This means, among other things, coming to class having done the readings carefully and prepared to discuss them, asking questions during class, responding to questions asked by myself or a classmate, and visiting office hours to discuss any material you’re not clear on.

## **Electronic Devices in the Classroom**

The use of mobile phones in class is not permitted. Please turn them off (or silence them) and put them away. The use of laptops for the **sole purpose** of note-taking is permitted. If I see that you are using your laptop for other purposes, however, I will ask you not to use your laptop in class again.

## **Office Hours and Availability**

My regular office hours are as stated up top. I’m happy to meet you at other days/times as well—just make arrangements with me over email or in person.

I will do my best to respond to your emails within 24 hours, but I may not always be able to do so. (And I’ll be slower on weekend or holidays.) If you think your message will require a lengthy reply from me, please arrange to come and see me in person instead.

## **Tentative Course Readings/Topics Schedule (subject to revision)**

### **Week 1 (Jan. 7): Introduction**

- Optional: Brook, A. (2009), "Philosophy In and Philosophy of Cognitive Science"

### **Week 2 (Jan. 14): Functionalism and The Mind-Body Problem**

- Fodor, J. (1981), "The Mind-Body Problem"
- Putnam, H. (1967), "The Nature of Mental States"

### **Week 3 (Jan. 21): Theories of Mental Content**

- Dennett, D. (1981), "True Believers: The Intentional Strategy and Why It Works"
- Stich, S. (1981), "Dennett on Intentional Systems" (p.47-61)
- Optional: Haugeland, J. (1990), "The Intentionality All-Stars"

### **Week 4 (Jan. 28): Cognitive Architecture: Classicism vs. Connectionism**

- Fodor, J. & Pylyshyn, Z. (1988), "Connectionism and Cognitive Architecture: A Critical Analysis" (p.3-50 only)

### **Week 5 (Feb. 4): Artificial Intelligence**

- Turing, A. (1950), "Computing Machinery and Intelligence" (p.1-15 only)
- Searle, J. (1980), "Minds, Brains and Programs"
- Churchland, P. & Churchland, P. (1990), "Could A Machine Think?"

### **Week 6 (Feb.11): Midterm Exam (No new readings)**

### **Week 7 (Feb. 18): Winter Break, No Class**

### **Week 8 (Feb. 25): Perception**

- MacPherson, F. (2012), "Cognitive Penetration of Colour Experience"
- Firestone, C. & Scholl, B.J. (2015), "Cognition does not affect perception: Evaluating the evidence for 'top-down' effects"
- Optional: Pylyshyn, Z. (1999), "Is Vision Continuous with Cognition?"

### **Week 9 (March 3): Consciousness**

- Block, N. (2011), "The Higher Order Approach to Consciousness is Defunct"
- Rosenthal, D. (2011), "Exaggerated Reports: Reply to Block"
- Optional: Lau, H. & Brown, R. "The Emperor's New Phenomenology? The Empirical Case for Conscious Experiences without First-Order Representations"

**Week 10 (March 10): Action**

- Pacherie, E. (2014), "Can Conscious Agency Be Saved?"
- Wegner, D. (2003), "The Mind's Best Trick: How We Experience Conscious Will"
- Optional: Libet, B. (1985), "Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action"

**Week 11 (March 17): Implicit Bias**

- Levy, N. (2014) "Consciousness, Implicit Attitudes, and Responsibility"
- King & Carruthers (2012) "Moral Responsibility and Consciousness"
- Optional: Mandelbaum, E. (2014) "Attitude, Inference, Association: On the Propositional Structure of Implicit Bias"

**Week 12 (March 24): Emotion**

- Prinz, J. (2006), "Is Emotion a Form of Perception?"
- Optional: Ellsworth, P. & Scherer, K. (2013), "Appraisal Processes in Emotion"

**Week 13 (March 31): Animal Cognition \*\*\*Term Paper Due\*\*\***

- Andrews K. (2009) "Politics or Metaphysics? On Attributing Psychological Properties to Animals"

**Week 14 (April 7): Wrap-Up/Review Class**

## Department of Philosophy and Carleton University Policies (2015-16)

### **Assignments:**

Unless specifically told otherwise by their instructors, students:

- must not use a plastic or cardboard cover or paper clips
- must staple the paper (there is a stapler on the essay box)
- must include the following:
  - student name
  - student number
  - course number and section
  - instructor's name
- No assignments will be accepted after the last day for handing in term work – see dates in next column.
- Assignments handed in through the essay box (just inside the glass doors, Paterson Hall, Floor 3A) must be dropped into the box by **4:15** on a regular business day in order to be date-stamped with that day's date. Assignments handed in after 4:15 or on a non-business day will be stamped as having been handed in on the next business day.
- Students are required to keep copies of their assignments. If your paper is lost at any point, you will be considered not to have submitted it if you cannot produce a copy immediately on request.

### **Deferrals for Term Work:**

If you miss a final examination and/or fail to submit a final assignment by the due date because of circumstances beyond your control, you may apply for a deferral of examination/assignment. For deferred examinations, you must apply within 5 working days after the scheduled date of your exam. To apply for deferral of a final assignment, you must apply within 5 working days of the last scheduled day of classes. Visit the Registrar's Office for more information.

### **Plagiarism:**

It is the responsibility of each student to understand the meaning of 'plagiarism' as defined in the Undergraduate or Graduate Calendars, and to avoid both committing plagiarism and aiding or abetting plagiarism by other students. (Undergraduate Calendar Academic Regulations, section 14.3, or <http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/acadregsuniv14/>)

### **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 your professor 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 visit the Equity Services website: <http://www2.carleton.ca/equity/>

**Religious obligation:** write to your professor 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 visit the Equity Services website: <http://www2.carleton.ca/equity/>

**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 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 your professor to ensure

accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (*if applicable*) at <http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/>

You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodation at <http://www2.carleton.ca/equity/>

### **Important Dates:**

Sept. 2	Classes start.
Sept. 4	Classes follow a Monday schedule.
Sept. 7	Labour Day - University closed.
Sept. 18	Last day for registration and course changes in Fall and Fall/Winter courses.
Sept. 30	Last day for entire fee adjustment when withdrawing from Fall term or two-term courses.
Oct. 12	Thanksgiving Day – University closed.
Oct. 26-30	Fall Break – no classes.
Nov. 24	Last day for tests or examinations in courses below 4000-level before the Final Examination period.
Dec. 7	Last day of classes, Fall term. Last day for handing in term work and the last day that can be specified by a course instructor as a due date for Fall term courses.
Dec. 7	Last day to withdraw from Fall term courses (academic purposes only).
Dec. 8	No classes or examinations take place. Review classes may be held, but no new material may be introduced.
Dec. 9-21	Final examinations for Fall courses, mid-terms for Fall/Winter courses. Exams are normally held all seven days of the week.
Dec. 21	Take-home exams are due.
Jan. 6	Winter term classes begin.
Jan. 19	Last day for registration and course changes in Winter term classes.
Jan. 31	Last day for entire fee adjustment when withdrawing from winter courses or winter portion of two-term courses.
Feb. 15-19	Winter Break, no classes.
Mar. 24	Last day for tests or examinations in courses below 4000-level before the Final Examination period.
Mar. 25	Good Friday – University closed.
Apr. 8	Last day of Fall/Winter and Winter term classes. Last day for handing in term work and the last day that can be specified by a course instructor as a due date for term work for Fall/Winter and Winter term courses.
Apr. 8	Last day to withdraw from Fall/Winter and Winter term courses (academic purposes only).
Apr. 9-10	No classes or examinations take place. Review classes may be held, but no new material may be introduced.
Apr. 11-23	Final Examinations. Exams are normally held all seven days of the week.
Apr. 23	Take-home exams are due.

### **Addresses:**

Department of Philosophy:	3A35 Paterson Hall <a href="http://www.carleton.ca/philosophy">www.carleton.ca/philosophy</a> 520-2110
Registrar's Office:	300 Tory <a href="http://www.carleton.ca/registrar">www.carleton.ca/registrar</a> 520-3500
Student Academic Success Centre:	302 Tory <a href="http://www.carleton.ca/sasc">www.carleton.ca/sasc</a> 520-7850
Writing Tutorial Service:	4 <sup>th</sup> Floor, Library <a href="http://www1.carleton.ca/sasc/writing-tutorial-service/">http://www1.carleton.ca/sasc/writing-tutorial-service/</a> 520-6632
MacOdrum Library	<a href="http://www.library.carleton.ca/">http://www.library.carleton.ca/</a> 520-2735