

FYSM1607 (A): Cognitive Science: Thinking and Knowing

Course Outline

Fall/Winter 2019-2020

Class Information

Dates: Wed/Fri (Starting Sept 4, 2019)

Time: 8:35 – 9:55

Location: SH 506

Course prerequisites: This is a full-session (Fall/Winter) course that starts in September and ends in April. normally restricted to students entering the first year of a B.Econ., B.A., B.Cog.Sc., B.Co.M.S., B.Econ. or B.G.In.S. program.

Instructor Information

Instructor: Dr Deirdre Kelly

Office: TBD

E-mail: deirdre.kelly@carleton.ca

Office Hours: Wednesday 16:30 – 18:30 PM (by appointment) (Location TBD)

Teaching Assistant(s)

Name: TBD

E-mail: TBD

Office hours (if applicable): TBD

Course Description

In this First Year Seminar (FYSM), we will examine topics that are important to philosophy of mind, cognitive psychology, linguistics, computer science, and evolutionary theory. In doing so, we will look at the links that unite these areas in their goal of trying to understand both human and non-human minds (e.g., animals and artificial intelligence). You will learn about the various disciplines that comprise cognitive science both by examining some foundational issues in these topics and by looking at a number of topics that cognitive scientists are in the unique position of exploring in an interdisciplinary way. One of the main goals of this FYSM is to provide you the opportunity to take what you have learned from seemingly disparate disciplines and find a way to integrate this knowledge into a greater understanding of how the mind works.

There are a number of goals that this course is designed to meet. They are accomplished by structuring a course with two threads: content and skills. These two threads come together in a culminating project. This course will provide you with the opportunity to:

- Communicating ideas to various audiences
- work on writing skills (workshops; feedback);
- better understand the conceptual underpinnings and methods of cognitive science;
- draw connections among the disciplines that make up cognitive science; and learn how to present research (culminating project).

Readings

Textbooks available at the Carleton Bookstore

Cognitive Science: An Introduction to the Science of the Mind (Bermudez)

The Intellectual Powers: A Study of Human Nature (Hacker)

* Additional readings will be introduced as required.

Additional Resources:

http://www.cambridge.org/features/bermudez/students/links_learning.htm

Course Web Page (cuLearn)

The course website is located at <https://culearn.carleton.ca/moodle/course/view.php?id=133456>

On this site you will find the course outline, schedule, discussion forums, updates, course feedback tools, marking rubrics, and a variety of learning exercises and useful links. It is going to be a dynamic space with many opportunities for you to make a meaningful contribution to the course and connect with your peers. The discussion forums represent an excellent place in which to ask questions of your colleagues, share your thoughts on the material, post interesting and relevant links, arrange study groups, etc.

The site also includes the PowerPoint lecture slides. While these slides are meant to assist your efforts in the course, they are only a starting point for what we talk about in class. Material will be covered in class that is not included on these slides. In other words, the slides should not be regarded as a substitute for class attendance.

Evaluation

Provide an at-a-glance overview of percentage breakdowns and due dates (if applicable) for all evaluative elements. For example:

Item	Weight of Grade	Due date
Midterm project consultation with TA	10	To be held no later than October 16, 2019
Midterm project outline	10	October 30, 2019
Midterm project	30	November 20, 2019
Final project consultation with TA	10	To be held no later than February 12, 2020
Final project presentation	15	Mar 11 and Mar 13, 2020
Final project summary report	25	March 20, 2020

Policy on Late Assignments

Late assignments will be penalized at a rate of 10% of the assignment value per day or part day. In the interest of being fair to all students, there will be no grace period. Therefore, a document submitted 1 minute after the deadline will be considered late. Therefore, it is strongly recommended that you upload and submit the document prior to the last few minutes before the deadline. A doctor's note or other medical documentation must be provided within two working days after the due date in order to avoid late penalties. In order to be

considered official, all extensions must be obtained in writing from the instructor. If you are running into trouble, it is vital to approach me as soon as possible.

A grade of 0 will be assigned for failure to meet with the TA for outline and final project consultations before October 16, 2019 and February 20, 2020, respectively (unless a documented excuse is presented).

Lecture Schedule

*Additional readings, videos, and other information may be added as required.

Dates	Lecture Topic	Readings
Sept 4, 6	Introduction What is Cognitive Science	None
Sept 11, 13	The many faces of Cognitive Science	Bermudez: Chapters 1,2
Sept 18, 20	The Integration Challenge	Bermudez: Chapters 3
Sept 25, 27	Philosophy	http://cogsci.uwaterloo.ca/Articles/whycogsci.2009.pdf Bermudez: 6.3 The Chinese Room
Oct 2, 4	Linguistics	Bermudez: Chapter 9.1 Hacker: Chapter 3
Oct 9, 11	Psychology	Bermudez: Section 4.2
Oct 16, 18	Neuroscience	Due: Outline Approval Bermudez: Chapter 8.1
Oct 23, 25	Fall Break	None
Oct 30, Nov 1	AI and Other Cognitive Systems	Bermudez: Chapter 7.1 David Chamovitz: What A Plant Knows The Cognitive Trade-off Hypothesis: https://www.youtube.com/watch?v=ktkjUjcZid0
Nov 6, 8	New and emerging cognitive science (Behavioural economics, UX/UI...)	Due: Midterm Project Outline
Nov 13, 15	How do we know?	Hacker: Chapter 4
Nov 20, 22	What do we believe? Effects of cognitive bias	Due: Midterm project Hacker: Chapter 5
Nov 27, 29	How do we perceive?	Hacker: Chapter 8
Dec 4	How do we remember? How do we think?	Hacker: Chapter 9 Hacker: Chapter 10
Winter 2020	COMING SOON!	

This schedule is to be regarded as tentative, although the midterm date is fixed.

Additional Information (to be added at the end of the course outline)

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

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: ① 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; ② submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else; ③ using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment; ④ using another's data or research findings; ⑤ failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks; ⑥ 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.

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

<https://carleton.ca/registrar/registration/dates-and-deadlines/>