

**FYSM 1607-B: Cognitive Science: Thinking and Knowing**  
**Course Outline**  
***Fall/Winter 2019-2020***

**Class Information**

Time: 4:05pm-5:25pm Tuesdays and Thursdays

Location: Unicentre 376

Prerequisites: normally restricted to students entering the first year of a B.A., B.Cog.Sc., B.Co.M.S., B.Econ. or B.G.In.S. program

**Instructor Information**

Instructor: Dr. Rebecca Merkley

Office: DT 2202

Phone: 613-520-2600 ext 6134

E-mail: rebeccamerkley@cunet.carleton.ca

Office Hours: 12:30pm-2:30pm on Wednesdays or by appointment

**Teaching Assistant(s)**

Name: TBD

E-mail:

Office hours (if applicable):

**Please refer to the Academic Year included in the online [Undergraduate](#) calendar to review all statutory holidays, important university dates, the Fall Break, Oct. 21-25, 2019, the Winter Break, February 17-21, 2020 and other university holidays prior to creating your course outline.**

**Course Description**

In this First Year Seminar (FYSM), we will examine topics that are important to understanding how the mind works and different approaches to uncovering the answers. You will draw from research in neuroscience, psychology, philosophy, linguistics, and artificial intelligence to explore topics including: memory, consciousness, decision-making, and machine learning. In this course, you will also develop transferable skills to help you throughout your undergraduate career.

This course will provide you with the opportunity to:

- Work on writing and other communication skills
- Be introduced to the theories and methods of cognitive science
- Think about how cognitive science can inform ways of solving problems such as ‘will AI replace humans for jobs?’
- Develop critical thinking skills and draw connections among the disciplines that make up cognitive science
- Work as a team

**Readings**

The readings for this course include a range of articles, a popular science book, and a textbook. The articles will be assigned on a weekly basis and will be available on the cuLearn course webpage. The popular science

book will be chosen in class and will be read in the Winter Term. Examples of books that might be chosen are 'Thinking Fast and Slow' by Daniel Kahneman and 'The Man Who Mistook His Wife for a Hat' by Oliver Sacks. The required textbook for this course is: **Friedenberg, J. and Silverman, G. (2016). Cognitive Science: An Introduction to the Study of Mind, Third Edition. Sage Publications, Thousand Oaks, CA.**

This textbook is available in both electronic and printed formats.

**Hard copy:** The university bookstore carries both the new copies of the book and the used ones. You can either buy a hard copy or rent it for the term.

**E-book:** For VitalSource Bookshelf <https://www.vitalsource.com/products/cognitive-science-jay-friedenberg-v9781483347424>

### Course Web Page (cuLearn)

The course website is located at <https://carleton.ca/culearn/>

On this site you will find the course outline, schedule, lecture slides, and any supplementary materials. updates, course feedback tools, marking rubrics, and a variety of learning exercises and useful links. Note that 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
Participation	15%	
Mini Skill Building Assignments	15%	April 7 <sup>th</sup>
Writing Assignment 1	10%	October 10 <sup>th</sup>
Test 1	10%	November 7 <sup>th</sup>
Test 2	10%	January 28 <sup>th</sup>
Writing Assignment 2	10%	February 6 <sup>th</sup> (first draft)
Test 3	10%	March 19 <sup>th</sup>
Final Group Project	20%	April 2 <sup>nd</sup>

**Participation:** To earn participation marks you will be required to come to class prepared and participate in the activities and discussion. Attendance is worth 5% of your mark and submitting a weekly response via a Google form is worth an additional 5%. You will also be required to attend three workshops through the Centre for Student Academic Success, which is worth 5% of your final mark (see more information about the Incentive Program below). Finally, you must make an appointment to meet with the instructor during office hours during the first few weeks of term.

**Mini Skill Building Assignments:** Over the course of the year, you will be assigned five mini assignments for the purpose of developing transferable skills. They will not be evaluated, but you will earn 3% of your final grade for each one you turn in, and there will be a 2% bonus for completing all 5.

**Writing Assignment 1:** The first writing assignment will be to read an assigned empirical research (journal) article and write a summary of it.

**Test 1:** The first test will cover content from the first portion of the course prior to test 1. More details will be provided before the test.

**Test 2:** The second test will cover content starting with material after test 1 up to the content covered prior to test 2. More details will be provided before the test.

Tests 1 and 2 are based on (1) text book and supplementary readings, (2) course slides, which will be made available on cuLearn, (3) information presented during class, including class discussions.

**Writing Assignment 2:** The second writing assignment will be to write a short reflection paper addressing a key question in cognitive science and drawing on evidence from multiple perspectives. A list of possible questions to choose from will be provided. You will have the opportunity to submit a revision of your paper after receiving feedback.

**Test 3:** The third test will cover content starting with material after test 2 up to the content covered prior to test 3. More details will be provided before the test.

**Final Group Project:** For this assignment you will be required to work in groups of 3-4 to research and report on a topic in cognitive science. You will write a paper and develop a poster presentation.

You may use a ‘no questions asked’ 3-day grace period for one assignment and turn it in without penalty. Once that has been used, late assignments without documentation will be docked 10% and late submissions will only be accepted up to one week following the deadline. Illness and bereavement (supported by appropriate documentation) are the only reasons accepted for missed tests or late assignments. If you miss a test for one of these reasons, obtain the appropriate documentation and contact me immediately (within 24 hours) to arrange a make-up test.

### Lecture Schedule

All chapter readings can be found in the Friedenbergl & Silverman text. Any other readings will be made available on cuLearn. Be sure to check cuLearn every week before class.

Date	Lecture Topic	Readings
Week 1 Sept 5 <sup>th</sup>	Welcome and Introduction	
Week 2 Sept 10 <sup>th</sup> , Sept 12 <sup>th</sup>	Introduction to Cog Sci	Chapter 1
Week 3 Sept 17 <sup>th</sup> , Sept 19 <sup>th</sup>	How to find and read research	
Week 4 Sept 24 <sup>th</sup> , Sept 26 <sup>th</sup>	Psychological Approach	Chapter 3
Week 5 Oct 1 <sup>st</sup> , Oct 3 <sup>rd</sup>	Cognitive Psychology	Chapter 4, 5
Week 6 Oct 8 <sup>th</sup> , Oct 10 <sup>th</sup>	How to structure an argument  <b>Writing Assignment 1 Due (Oct 10<sup>th</sup>)</b>	
Week 7 Oct 15 <sup>th</sup> , Oct 17 <sup>th</sup>	Biological Approach	Chapter 6
Reading week		
Week 8	Cognitive Science in Film	

Oct 29 <sup>th</sup> , Oct 31 <sup>st</sup>		
Week 9 Nov 5 <sup>th</sup> , Nov 7 <sup>th</sup>	<b>Test 1 (Nov 7<sup>th</sup>)</b>	
Week 10 Nov 12 <sup>th</sup> , Nov 14 <sup>th</sup>	Memory & Drugs	
Week 11 Nov 19 <sup>th</sup> , Nov 21 <sup>st</sup>	Evolutionary Approach	Chapter 8
Week 12 Nov 26 <sup>th</sup> , Nov 28 <sup>th</sup>	Library Session	
Week 13 Dec 3 <sup>rd</sup> , Dec 5 <sup>th</sup>	Study Skills	
Week 14 Jan 7 <sup>th</sup> , Jan 9 <sup>th</sup>	Philosophical Approach	Chapter 2
Week 15 Jan 14 <sup>th</sup> , Jan 16 <sup>th</sup>	Computational Approach (Artificial Intelligence)	Chapter 12
Week 16 Jan 21 <sup>st</sup> , Jan 23 <sup>rd</sup>	Linguistic Approach	Chapter 9
Week 17 Jan 28 <sup>th</sup> , Jan 30 <sup>th</sup>	<b>Test 2 (Jan 28<sup>th</sup>)</b>	
Week 18 Feb 4 <sup>th</sup> , Feb 6 <sup>th</sup>	<b>Writing Assignment 2 Due (Feb 6<sup>th</sup>)</b>	
Week 19 Feb 11 <sup>th</sup> , Feb 13 <sup>th</sup>	Emotional Approach	
<b>Reading Week</b>		
Week 20 Feb 25 <sup>th</sup> , Feb 27 <sup>th</sup>	Group Project Work	
Week 21 Mar 3 <sup>rd</sup> , Mar 5 <sup>th</sup>	Book Club Discussion	
Week 22 Mar 10 <sup>th</sup> , Mar 12 <sup>th</sup>	Science Communication	
Week 23 Mar 17 <sup>th</sup> , Mar 19 <sup>th</sup>	<b>Test 3 (Mar 19<sup>th</sup>)</b>	
Week 24 Mar 24 <sup>th</sup> , Mar 26 <sup>th</sup>	Applications of Cognitive Science	
Week 25 Mar 31 <sup>st</sup> , Apr 2 <sup>nd</sup>	<b>Group Project</b> presentations	
Week 26 Apr 7 <sup>th</sup>	Future Directions in Cognitive Science	

***This schedule is to be regarded as tentative.***

### **Information for Students about the Incentive Program 2019-2020**

This course has been registered in the Incentive Program offered through the Centre for Student Academic Support (CSAS). CSAS Learning Support Workshops are designed to help students cultivate and refine their

academic skills for a university environment. To earn 5% towards participation you are expected to attend 3 workshops throughout the term.

Learning Support Workshops for the 2019-2020 academic year will be available starting September 10, 2019 and must be completed by December 6, 2019 to receive credit for the Incentive Program for the fall term. In the Winter 2020 term, workshops will be available beginning January 7, 2020 and must be completed by April 7, 2020.

CSAS offers 9 online workshop topics during the summer terms. For complete workshop descriptions please visit the CSAS website: <https://carleton.ca/csas/learning-support-workshops/>

To access the online workshops, please self-enroll through the CSAS Online Learning Community: <https://carleton.ca/csas/online-support/>

To view your workshop attendance history, please log on to MySuccess via Carleton Central. Attendance records will be updated at the mid-way point and end of the term.

For further information on Incentive Program participation policies and FAQs, please visit: [carleton.ca/csas/incentive-program/](http://carleton.ca/csas/incentive-program/). For specific questions, please contact the Centre for Student Academic Support at [csas@carleton.ca](mailto:csas@carleton.ca) or 613-520-3822

### **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**

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.

### **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/>

---

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

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