



Dr. Rebecca Merkley

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Office Hours: by appointment

THEORIES IN COGNITIVE SCIENCE

CGSC 2001B - Winter 2021

Class Information

Time: Tuesdays and Thursdays*
2:35pm-3:55pm
*synchronous meeting

Course website:

<https://carleton.ca/culearn/>
Here you will find the outline, schedule, and other materials.



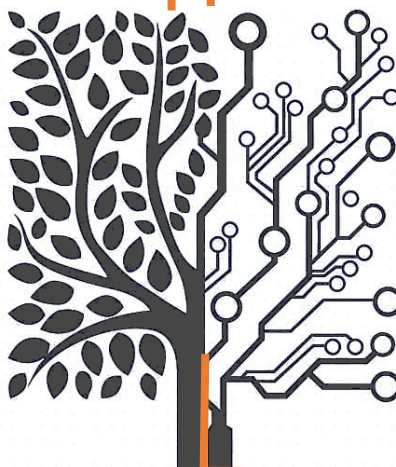
Technical Requirements

A list of technical requirements for online learning is available here:
<https://carleton.ca/its/help-centre/faq-technical-specs-for-new-students/>

You can download Microsoft Office 365 free of charge:
<https://carleton.ca/its/ms-offer-students/>

Teaching Assistants:

Brendan Conway-Smith
(brendanconwaysmith@gmail.com) & **Lara Russo**
(lararusso@gmail.com)



"As humans, we can identify galaxies light years away and we can study particles smaller than an atom, but we still haven't unlocked the mystery of the 3lbs of matter that sits between our ears." – President Barack Obama

Course Description

Cognitive Science combines psychology, artificial intelligence, neuroscience, linguistics, and philosophy to study how people think. Students will learn about how cognitive scientists approach problems in a diverse, integrated manner to help us understand how people process information.

This course serves as a core introductory credit for all Cognitive Science majors, but is also intended to be accessible to students in other disciplines, whether or not those disciplines are connected to Cognitive Science.

Prerequisites: second-year standing and FYSM1607 or CGSC1001.

Readings

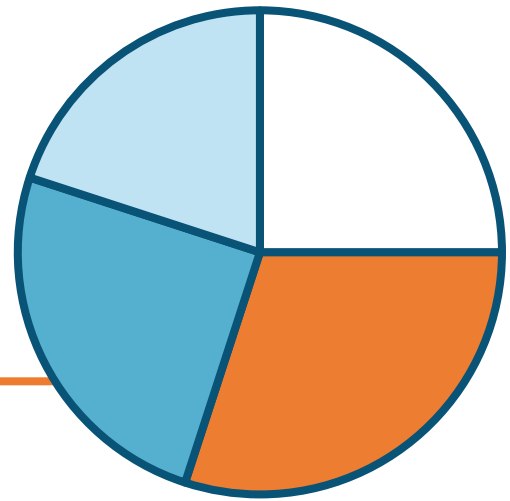
The readings for this course include a range of media, scientific articles, and book chapters. Readings will be assigned on a weekly basis and will be available via the cuLearn course webpage and the library. You do not need to buy anything.

Learning Outcomes

- Identify the major disciplines that make up cognitive science and their unique contributions
- Apply concepts and methods from cog sci to everyday problems
- Develop critical thinking skills and make connections

Evaluation

Your grades will be based on two assignments, weekly quizzes and participation, and a midterm test. There is no final exam. Detailed descriptions of all activities and assignments are on cuLearn. Weekly deadlines are Fridays at 5pm.



- Weekly Participation
- Midterm Test
- Essay
- Science Communication

Weekly Participation (25%)

There are weekly quizzes or activities to complete for participation marks. These will be described on cuLearn and some activities will be done in groups. You are encouraged to attend the weekly synchronous meetings and participate in class discussions. These will be recorded if you cannot attend. You are expected to direct and reflect on your own learning.

Midterm Test (30%)

There will be a midterm test consisting of multiple choice, true/false, and short answer questions. The test will cover all readings, videos, and lectures up until March 4th.

Thursday, March 4th

Thought Paper (25%)

Write a thought paper (max 1500 words) on a cognitive science topic covered in class and discuss how the research in that area should (or should not) impact everyday problems. A rubric and detailed description are on cuLearn.

Due April 27

Media Assignment (20%)

The goal of this assignment is to help you see how cognitive science is described in the news and to become more critical consumers of information. You will need to find an article in the media and the primary source (scientific paper) covered in the article. A rubric and detailed description are on cuLearn.

Due February 5th

Course Expectations & Policies

This is a “blended” online course, which means that you are expected to participate in the Thursday meetings (on Zoom). They will be recorded in case you cannot make it, but please note that breakout rooms will not be recorded. Your mental and physical health are the top priority. You can choose whether to turn your camera on and silly backgrounds are welcome. You are also asked to display your preferred name, or nickname, pronouns, and a photo for when your camera is off. Here is some more information about using Zoom: <https://apps.carleton.edu/campus>

Civility and Privacy: The University is a place of open discussion and free inquiry. It is expected that you will be respectful and considerate of your classmates and our learning environment will be free from discrimination and harassment

Late Assignments: You may use a ‘no questions asked’ 3-day grace period for one assignment (not the test) and turn it in without penalty. If you need other extensions or accommodations, please contact the TA or instructor at least a week ahead of the deadline.



Course Schedule

| Week | Date | Topic | Assignment |
|--------------|---------------|------------------------------------|--------------------------|
| 1 | Jan 12, 14 | Introduction | |
| 2 | Jan 19, 21 | Historical Overview | |
| 3 | Jan 26, 28 | Brain & Mind | |
| 4 | Feb 2, 4 | Integration Challenge | Media Paper (due Friday) |
| 5 | Feb 9, 11 | Cognitive Models and Architectures | |
| WINTER BREAK | | | |
| 6 | Feb 23, 25 | Machine and Human Learning | |
| 7 | Mar 2, 4 | Review and Midterm | Midterm Test Thursday |
| 8 | Mar 9, 11 | Comparative Cognition | |
| 9 | Mar 16, 18 | Social Cognition | |
| 10 | Mar 23, 25 | Decision Making & Metacognition | |
| 11 | Mar 30, Apr 1 | Applications of Cognitive Science | |
| 12 | Apr 6, 8 | Review & Reflect | Final Paper (due Apr 27) |

This schedule is tentative.

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

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:

<https://calendar.carleton.ca/undergrad/regulations/academic-regulationsoftheuniversity/>

Important Information

- Students must always retain a 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/>

Accommodations

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).

Other Accommodations: 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 (e.g. religious or pregnancy) is known to exist. For more details, see the Student Guide.

Plagiarism

Plagiarism is presenting, whether intentionally or not, the ideas, expression of ideas, or work of others as one's own. 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 when an instructor suspects a piece of work has been plagiarized. For more details see:

<https://carleton.ca/senate/wp-content/uploads/Academic-Integrity-Policy1.pdf>

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

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