CGSC 3501a Cognitive Neuroscience, Fall 2021

Professor: Olessia Jouravley DT 2209 520-2600 x.4148

Office hours: via zoom by appointment

Email: <u>olessia.jouravlev@carleton.ca</u>

Teaching Assistant: TBD Office hours: TBD

Email:

Course Hours and Locations

The class will be in the blended format. We will meet via zoom weekly on Mondays from 11:35 to approximately 12:30 - 13:00. Lectures will be pre-recorded and available for viewing one week before a scheduled meeting. Please watch a lecture <u>BEFORE</u> a meeting. When we meet online via zoom, we will (a) clarify any questions that you might have about the lecture content, (b) listen to presentations of papers done by students, (c) discuss assigned readings, and (d) complete brief weekly quizzes. In addition, there will be a midterm and a final exam (see schedule below).

Course Prerequisite(s)

Third year standing and CGSC2001.

Course Description: Goals and Objectives

This course explores the neurocognitive processes that support attention, memory, vision, hearing, motor control, language, and reasoning. It introduces basic neuroanatomy, neuroimaging and behavioural measures of cognition, and discusses brain development and evolution. Evidence from patients with neurological conditions (e.g., Alzheimer's disease, Parkinson's disease, amnesia, aphasia, etc.) and from neurotypical human participants will be considered

Upon completion of this course, students should be able to:

- Describe key concepts, principles, and overarching themes relevant to cognitive neuroscience.
- Articulate the concepts and current states of knowledge in cognitive neuroscience.
- Engage in a critical scholarly discussion on a psychological topic using evidence to support claims.
- Critically evaluate the presentation of scientific ideas and research.
- Apply principles of cognitive neuroscience to the understanding of everyday problems.

Text and Readings

Required

• Selected journal articles. These will all be available through CU Learn. The readings are organized by week.

Course Web Page (Brightspace)

The course website is located at https://brightspace.carleton.ca/

On this site you will find the course outline, schedule, grading rubrics, assigned readings, and useful links.

Information for Students with Disabilities

Students with a disability who require academic accommodations should come and discuss these with me as soon as possible.

Course Calendar

Week	Topic	Assigned Reading
1 (13/09)	Introduction	No Reading
2 (20/09)	Nervous System	@CULearn
3 (27/09)	Methods of Cognitive	@CULearn
	Neuroscience	
4 (4/10)	Sensorimotor System	@CULearn
5 (11/10)	Thanksgiving / NO CLASS	No Reading
6 (18/10)	Sensation and Perception:	@CULearn
	Vision	
7 (25/10)	Fall Break / NO CLASS	No Reading
8 (1/11)	Object Recognition	@CULearn
9 (8/11)	Midterm	No Reading
10 (15/11)	Hearing & Language	@CULearn
11 (22/11)	Memory & Learning	@CULearn
12 (29/11)	Attention, Consciousness,	@CULearn
	Executive Functioning	
13 (6/12)	Social Cognition &	@CULearn
	Emotions	
13 (10/12)	Brain Development &	@CULearn
	Plasticity	

Evaluation

Evaluation Components	Due Dates	Percent of Grade
1. Midterm Exam	See schedule above	30
2. Final Exam	During the exam	30
	period	
3. Brief Weekly Quizzes	ongoing	15
4. Paper Presentation (Flash Talks)	ongoing	10
5. Paper Discussions	ongoing	15

Midterm and Final Exams

There are 2 summative exams that will be given as noted in the schedule. The exams will cover content from lectures, assigned readings, and flash talks. The midterm exam will be based on the content of Weeks 1-8. The final exam will be based on the content of Weeks 10-13. Each exam is worth 30% of the final grade. If you miss an exam for any unapproved reason, you will not be able to make it up later. If you miss an exam due to an approved absence from class, please get in touch with me or a TA ASAP to arrange for a make-up exam.

The format of exams will be a combination of multiple-choice questions, fill the blanks questions, short answers questions, and extended answers questions. Study guides accompanying lectures are provided at Brightspace to assist you in preparation.

Brief Weekly Quizzes

Brief quizzes will be given weekly during our meetings. Each quiz will contain 5 questions to be completed within 3 minutes. The quiz will be based on content of that week's lecture. There will be 10 quizzes (and a trial quiz administered during week 1). I will drop the lowest 1 of the 10 weekly quizzes. Together the quizzes will account for 15% of the final grade. If you miss a quiz for any reason, you will not be able to make it up later. Study guides accompanying lectures are provided at Brightspace to assist you in preparation for quizzes.

Paper Presentation (Flash Talks)

Each student will make a brief presentation of ONE empirical paper that has not been assigned for reading to class. The papers will be assigned during the first week of classes. If you missed our first meeting, please contact a TA to get a paper assigned to you.

You have to read the assigned paper and present it in class. You will have FIVE minutes to present research described in the paper to class. Your presentation should have no more than 5 slides (e.g., slide 1 – explain a research question; slide 2 – describe the methods, slide 3(4) – describe the results, slide 5 – conclusions). At the end of your presentation, students will have TWO minutes to ask you questions.

Your presentation is worth 10% of your final grade. A grading rubric is available at Brightspace.

Paper Discussions

Each weekly class will have an assigned reading. You are expected to read a paper before our weekly meeting and be ready to discuss it. The professor will lead discussions. Questions for discussions are available at Brightspace. To ensure that all students have a chance to participate in the discussion, the professor will ask all students to provide their responses in the chat window to 3 randomly-selected discussion questions. Your responses will be visible to the Professor only.

After each class, your participation will be assessed on a three-point scale: 3 - Class engagement was sustained (3 or more substantive contributions to discussion); 2 - Class engagement was adequate (2 substantive contributions to discussion); 1 - Class engagement was minimal (1 substantive contribution to discussion); 0 - Did not participate in discussion/No evidence that you read the article/Absent. Your final paper discussion grade will be based in large part on an average of these scores. Grades are assigned weekly to provide timely feedback; one or two poor marks will not significantly damage a final participation grade.

The one absence rule means that I will drop the lowest 1 of the 11 weekly paper discussion marks. Students missing class for a legitimate reason and who wish to make up for missed class should arrange for a meeting with a TA to discuss assigned readings with a TA.

REGULATIONS AND INFORMATION COMMON TO ALL COGNITIVE SCIENCE COURSES

Grades

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
E D 1 50			

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.

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: • 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/

Additional Information regarding COVID-19

All members of the Carleton community are required to follow COVID-19 prevention measures and all mandatory public health requirements (e.g. wearing a mask, physical distancing, hand hygiene, respiratory and cough etiquette) and mandatory self-screening prior to coming to campus daily. If you feel ill or exhibit COVID-19 symptoms while on campus or in class, please leave campus immediately, self-isolate, and complete the mandatory symptom reporting tool. For purposes of contact tracing, attendance will be recorded in all classes and labs. Participants can check in using posted OR codes through the cuScreen platform where provided. Students who do not have a smartphone will be required to complete a paper process as indicated on the COVID-19 website. All members of the Carleton community are required to follow guidelines regarding safe movement and seating on campus (e.g. directional arrows, designated entrances and exits, designated seats that maintain physical distancing). In order to avoid congestion, allow all previous occupants to fully vacate a classroom before entering. No food or drinks are permitted in any classrooms or labs. For the most recent information about Carleton's COVID-19 response and required measures, please see the University's COVID-19 webpage and review the Frequently Asked Questions (FAQs). Should you have additional questions after reviewing, please contact covidinfo@carleton.ca Please note that failure to comply with University policies and mandatory public health requirements, and endangering the safety of others are considered misconduct under the Student Rights and Responsibilities Policy. Failure to comply with Carleton's COVID-19 procedures may lead to supplementary action involving Campus Safety and/or Student Affairs.