PSYC*4470, Course Outline: Fall 2020

General Information

DUE to the COVID-19 pandemic, this course is offered in an alternative format. Alternative Delivery Asynchronous – AD-A Remote: no day and time for class

Course Title: Special Topics in Cognitive and Behavioural Neuroscience: Visual Cognition

Course Description:

Throughout the day we are bombarded by far more visual information than our minds and brains can process in detail. Yet, we can use this visual information to successfully guide complex behaviours like driving a car. This course reviews classical and recent basic research advances in the field of visual cognition that help us better understand our remarkable ability to make sense of the visual environments we live in.

Credit Weight: 0.5

Academic Department (or campus): Psychology

Semester Offering: Fall 2020

Class Schedule and Location:

Lectures are provided asynchronously and will be released on a weekly basis (or earlier) on CourseLink. Each lecture is available in two formats: as a PowerPoint slide deck with an embedded video presentation, and as a video file of this presentation (i.e., slide progression, with professors' face in bottom right corner of video). You should use which ever format you are most comfortable with. Lecture files can be found in the Content section on CourseLink.

Instructor Information

Instructor Name: Naseem Al-Aidroos

Instructor Email: My email is for urgent communications only (e.g., unexpected circumstances on the day of a test). Short questions should be posted to the discussion board on CourseLink, which is checked by me daily M-F. Long, or private, questions should be brought to my office hours (see next). naseem@uoguelph.ca

Office location and office hours: Office hours are virtual, and drop-in; no appointment needed. Times TBD, via Zoom (https://zoom.us/my/alaidroos)

GTA Information

GTA Name: TBA GTA Email: TBA

Course Content

Specific Learning Outcomes:

By the end of this course, students should be able to:

- Recall classical and recent discoveries in the field visual cognition and explain how these discoveries inform our current understanding of how the mind and brain make sense of visual environments.
- 2. Explain the questions that researchers posed to make these discoveries, and how the questions were eventually answered using cognitive and/or cognitive neuroscience paradigms.
- 3. Predict, based on past research, the results of hypothetical experiments.
- 4. Comprehend research articles reporting visual cognition discoveries, and assess the quality of the contribution made by a given article.
- 5. Understand and evaluate the methodologies employed by visual cognitive neuroscientists.
- 6. Describe how the data reported by visual cognitive neuroscientists relates to the conclusions they made about vision and the mind and brain.
- 7. Provide accurate written descriptions summarizing visual cognitive research.
- 8. Independently read and understand visual cognition literature.
- 9. Differentiate between researchers (and university instructors) claims that are well founded on scientific research from those that are not (even if they sound plausible).
- 10. Appreciate how debates in visual cognition emerge, and are resolved through the practice of sound science.

Lecture Content:

Lecture release/Test dates	Topics (may change) and test/quiz/paper dates		
Monday Sept. 14	Lecture 1: Introduction to visual cognition		
	Lecture 2: Attention basics		
Monday Sept 21	Lecture 3: Object attention		
	Lecture 4: Visual search		
Friday Sept 25	2% Course Outline/Respondus Practice Quiz		
Monday Sept 28	Lecture 5: Visual memory		
Friday Oct 2	Test 1 (Lectures 1-5 plus readings)		
Monday Oct 5	Lecture 6: Attentional capture		
	Lecture 7: Symbolic cues		
Monday Oct 12	Fall Break		
Wednesday Oct 14	Lecture 8: Control of attentional capture		
	Lecture 9: Memory of attentional goal		

Lecture release/Test dates	Topics (may change) and test/quiz/paper dates		
Monday Oct 19	Lecture 10: Memory of searched distractors		
Friday Oct 23	Test 2 (Lectures 6-10 plus readings)		
Monday Oct 26	Lecture 11: Reassessing VWM capacity		
	Lecture 12: Individual differences in VWM capacity		
Monday Nov 2	Lecture 13: Perception for action		
	Lecture 14: Action affects perception		
Monday Nov 9	Lecture 15: SNARC		
Friday Nov 13	Test 3 (Lectures 11-15 plus readings)		
Monday Nov 16	Lecture 16: Visual statistical learning		
	Lecture 17: Ensemble statistics		
Monday Nov 23	Lecture 18: Pupillometry and eye movement trajectories		
	Lecture 19: Emotion and attention		
Friday Nov 27	Test 4 (Lectures 16-19 plus readings)		
Friday Dec 4	CAP Paper Due		

Course Assignments and Tests:

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Course Outline/Respondus	Sept 9-25	2%	
Practice Quiz (Mandatory)			
Test 1	Oct 2, 9-10am	20%	1-3, 5-10
Test 2	Oct 23, 9-10am	20%	1-3, 5-10
Test 3	Nov 13, 9-10am	20%	1-3, 5-10
Test 4	Nov 27, 9-10am	20%	1-3, 5-10
Critical Assessment and	Dec 4, 11:59pm	18%	1,2,4-9
Position Paper			

Additional Notes (if required):

Course Outline/Respondus Practice Quiz: This quiz counts for 2% of your final grade, and serves two purposes: 1) to reinforce your knowledge of the course outline, and 2) to verify that you are prepared for the four course tests that also require the Respondus Lockdown Browser and Monitor. You can access the quiz though the Quizzes section on CourseLink. It can be completed anytime between Sept 9 and 11:59pm on Sept 25. You can take this quiz as many times as you want; your highest score is the one that counts.

Tests: Tests will be held online through CourseLink using the Respondus Lockdown Browser and Monitor. On the day of a test, you must start the test between 9-10am, and you will have 1 hour to complete the test once you start. If this time conflicts with your other courses or commitments, you must let the instructor know with at least 1-week advance notice, and a different time that day will be set up for you to write the test. Tests are NOT open book.

The objective of the tests is to allow you to demonstrate that you have gained the relevant knowledge about the function of our visual minds and brains, and that you can synthesize this knowledge to make predictions about unanswered questions in visual cognitive neuroscience. The tests will contain both multiple-choice and written-answer questions. Test questions will cover lecture material and assigned readings. Tests are not cumulative. For example, Test 2 will cover the lecture content and assigned reading from only lectures 6-10 (see lecture content table above). Please see note about missed tests below.

Critical Assessment and Position Paper: Assignment instructions available on CourseLink. Please see note below about late assignments.

Final examination date and time: N/A

Final exam weighting: 0%

Course Resources

Other Resources:

Assigned Readings:

There is no course textbook. All assigned readings are primary research articles and are available through CourseLink. Readings are associated with a given lecture, as indicated by the name of the reading file. The assigned readings are designed to help you develop:

- Your ability to process journal articles, which are the most reliable source for staying up to date with research
- Your ability to think independently. Many of the assigned readings will NOT be directly
 discussed in class, but your understanding of these articles will be evaluated through
 the tests. Your challenge is to figure out how to make sense of these articles.

CourseLink:

- Lectures will be posted to CourseLink by 5pm for each release date listed in the Lecture Content table above, at the latest.
- The test and quiz can be accessed through the Quizzes section on CourseLink, and both require Respondus Lockdown Browser and Monitor.
- Grades for all in class tests and the paper will be shared through CourseLink. As soon as grades are posted, I will add an announcement to the CourseLink News Feed.
- The critical assessment and position paper must be submitted through a CourseLink Dropbox, and Turnitin plagiarism detection software will be enabled.
- It is your responsibility to periodically verify your grades on CourseLink

Respondus LockDown Browser and Monitor:

This course requires the use of Respondus LockDown Browser and Monitor (webcam)
to proctor your online tests and quiz within CourseLink. Use of Lockdown Browser with
a webcam has been implemented to maintain the academic integrity of the four tests.
You must download and install LockDown Browser and Monitor to complete the

- practice quiz and four tests. While writing the practice quiz and four tests, you must show your university issued identification card during the Respondus Startup Sequence.
- Similar to a sit-down test where you must arrive prior to the start of the test, it is highly
 recommended that you enter the online test environment in Respondus at least 20-30
 minutes before the end of the available window to allow enough time for you to
 complete the Respondus Startup Sequence and ensure that you have the full hour for
 the test.
- Please be sure to review the Respondus Lockdown Browser and Monitor instructions in the Content section on CourseLink.
- Important Note: There is a mandatory Course Outline/Respondus practice quiz that you are required to take by September 22. The purpose of the practice quiz is to ensure that Respondus LockDown Browser and Monitor is set up properly and that you are comfortable using the software.
- If you have any questions regarding the use of Respondus Lockdown Browser and Monitor or if you encounter any technical issues during the practice test or final exam, please contact CourseLink Support at courselink@uoguelph.ca or 519-824-4120 ext. 56939.

Course Policies

Contacting the Instructor or TA

To help your instructor and TA stay on top of answering your questions, please use the following procedures when contacting us:

- The fastest way to get a response to simple questions is through the class discussion board on CourseLink. By simple, I mean questions that only require a sentence or two to answer. I check the board every weekday, and you are encouraged to respond to each other's posts.
- Longer questions, and questions of a confidential nature, should be brought to my
 virtual office hours (times listed above). I'm always happy to have visitors, so take as
 much advantage of these office hours as you can!
- Please direct questions about test and paper grading to the TA during their office hours, which are announced on CourseLink after grades are released.
- My email is to be used for emergencies only (e.g., if something comes up the day of a test).

Grading Policies

Missed Tests: There are no make-up tests. If you miss one test, its contribution to your final grade will automatically be distributed to the other grade components (i.e., quiz, other tests, and CAP paper). You do not need to contact the instructor or provide an explanation. If you miss more than one test, you must contact the instructor immediately to discuss whether an accommodation is possible, otherwise you will receive a grade of 0 on the additional missed tests.

Late Critical Assessment and Position Papers: Papers are graded out of 100 marks, and 10 marks will be subtracted from the assigned grade each day the paper is late, including weekend days. Papers submitted more than 5 days late will receive a grade of 0. Late papers should be submitted through the Critical Assessment and Position Paper Dropbox on CourseLink.

Course Policy regarding use of electronic devices and recording of lectures:

Course materials, including lectures, assignments, and tests, are solely for the use of the students enrolled in this course, and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

Student Rights and Responsibilities when Learning Online Online behaviour

According to the University Secretariat, students have a responsibility to help support community members' access to the tools they need to engage in their learning and development, both in and outside of the classroom. An example of this type of responsibility is the requirement to abide by the following:

Section 4.3.3. Disruption - to not interfere with the normal functioning of the University, nor to intimidate, interfere with, threaten or otherwise obstruct any activity organized by the University, including classes, or to hinder other members of the University community from being able to carry on their legitimate activities, including their ability to speak or associate with others.

As such, inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include

- Posting inflammatory messages about your instructor or fellow students
- Using obscene or offensive language online
- Copying or presenting someone else's work as your own
- Adapting information from the Internet without using proper citations or references
- Buying or selling term papers or assignments
- Posting or selling course materials to course notes websites
- Having someone else complete your quiz or completing a quiz for/with another student
- Stating false claims about lost quiz answers or other assignment submissions
- Threatening or harassing a student or instructor online
- Discriminating against fellow students, instructors and/or TAs
- Using the course website to promote profit-driven products or services
- Sharing your username and password
- Attempting to compromise the security or functionality of the learning management system

University Policies

Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings and academic schedules. Any such changes will be announced via CourseLink and/or class email. All University-wide decisions will be posted on the COVID-19 website and circulated by email.

Illness

The University will not normally require verification of illness (doctor's notes) for fall 2020 or winter 2021 semester courses. However, requests for Academic Consideration may still require medical documentation as appropriate.

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

Academic Consideration:

Academic Consideration, Appeals and Petitions

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar: Academic Misconduct Policy

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact <u>Student Accessibility Services</u> as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 54335 or email accessibility@uoguelph.ca or the Student Accessibility Services Website

Course Evaluation Information

Please refer to the Course and Instructor Evaluation Website.

Drop date

The last date to drop one-semester courses, without academic penalty, is Friday December 4th. For regulations and procedures for Dropping Courses, see the <u>Schedule of Dates in the Academic Calendar</u>.

Current Undergraduate Calendar

Additional Course Information

Turnitin: Course instructors are allowed to use software to help in detecting plagiarism or unauthorized copying of student assignments. Plagiarism is one of the most common types of academic misconduct on our campus. Plagiarism involves students using the work, ideas and/or the exact wording of other people or sources without giving proper credit to others for the work, ideas and/or words in their papers. Students can unintentionally commit misconduct because they do not know how to reference outside sources properly or because they don't check their work carefully enough before handing it in. Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

In this course, your instructor will be using Turnitin.com to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to prevent plagiarism in the College of Social and Applied Human Sciences.

A major benefit of using Turnitin is that students will be able to educate and empower themselves in preventing misconduct. In this course, you may screen your own assignments through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.