

PSYC*4580, Course Outline: Winter 2018

General Information

Course Title: Special Topics in Behavioural Sciences: 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: Winter 2018

Class Schedule and Location: MCKN, Room 120, Mon and Wed 10am - 11:20am

Instructor Information

Instructor Name: Naseem Al-Aidroos

Instructor Email: Please see Course Policy on Contacting the Instructor or TA. This email is for emergency contact only: naseem@uoguelph.ca

Office location and office hours: MacKinnon Extension 4018, drop in office hours Mon (time TBA) and Thurs 1-2pm.

GTA Information

GTA Name: Pietro Paletta and Alexandra Storace

GTA Email: TA contact information will be posted to CourseLink after each grade is released

GTA office location and office hours: Announced on CourseLink News Feed after each grade is released

Course Content

Specific Learning Outcomes:

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

1. 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 # | Date | Topics (may change) and in-class quiz dates |
|------------------|-------------|--|
| 1 | Jan 8 | Introduction to visual cognition |
| 2 | Jan 10 | Attention basics |
| 3 | Jan 15 | Object attention |
| 4 | Jan 17 | Visual search |
| 5 | Jan 22 | Visual memory |
| | Jan 24 | Quiz 1 |
| 6 | Jan 29 | Attentional capture |
| 7 | Jan 31 | Symbolic cues |
| 8 | Feb 5 | Control of attentional capture |
| 9 | Feb 7 | Memory of attentional goal |
| 10 | Feb 12 | Memory of searched distractors |
| | Feb 14 | Quiz 2 |
| | Feb 19,21 | Winter Break |
| 11 | Feb 26 | Reassessing VWM capacity |
| 12 | Feb 28 | Individual differences in VWM capacity |
| 13 | Mar 5 | Perception for action |
| 14 | Mar 7 | Action affects perception |
| 15 | Mar 12 | SNARC |
| | Mar 14 | Quiz 3 and CAP Paper Due |
| 16 | Mar 19 | Visual statistical learning |
| 17 | Mar 21 | Ensemble statistics |
| | Mar 26 | No class today |
| 18 | Mar 28 | Pupillometry and eye movements |
| 19 | Apr 2 | Emotion and attention |
| | Apr 4 | Quiz 4 |

Course Assignments and Tests:

| Assignment or Test | Due Date | Contribution to Final Mark (%) | Learning Outcomes Assessed |
|--|-----------------|--------------------------------|----------------------------|
| Critical Assessment and Position Paper | Mar 14, 11:59pm | 25% | 1,2,4-9 |
| Quiz 1 | Jan 24 | 25% (best 3 of 4) | 1-3, 5-10 |
| Quiz 2 | Feb 14 | 25% (best 3 of 4) | 1-3, 5-10 |
| Quiz 3 | Mar 14 | 25% (best 3 of 4) | 1-3, 5-10 |
| Quiz 4 | Apr 4 | 25% (best 3 of 4) | 1-3, 5-10 |

Additional Notes (if required):

In-class quizzes: The objective of the quizzes 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 cognition. The quizzes will contain both multiple-choice and written-answer questions. Quiz questions will cover lecture material and assigned readings and videos. Quizzes are not cumulative. Your final grade for the quiz component of the course is based on the average of your best three quizzes (i.e., the worst grade is dropped). Please see note about missed quizzes 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 and Videos:

There is no course textbook. All assigned readings are primary research articles, and are available through CourseLink along with any assigned videos. 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 discussed in class, but will be tested through the in-class quizzes. Your challenge is to figure out how to make sense of these articles.

CourseLink:

- Copies of the lecture slides will be posted to CourseLink by 7am on the morning of each lecture, at the latest.
- Grades for all in class quizzes will be shared through CourseLink. As soon as grades are posted, I will add an announcement to the CourseLink News Feed.
- It is your responsibility to periodically verify your grades on CourseLink

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 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 quiz grading to the TA during their office hours (announced on CourseLink).
- My email is to be used for emergencies only.

Grading Policies

Missed Quizzes: This course uses frequent in-class quizzes, which affords you the opportunity to drop your worst quiz mark. The tradeoff is that there are no make-up quizzes, because make-up quizzes could delay the grading process and prevent the instructor/TA from returning quiz grades in a timely fashion. The first time you miss a quiz this will be treated as your worst quiz grade that is dropped—you do NOT need to provide documentation, nor inform the instructor. Additional missed quizzes will be given a grade of 0 and count toward your final grade unless appropriate documentation is provided within one week to the instructor as evidence of illness or compassionate circumstances.

Late Independent Reflection Paper: 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 Independent Reflection Paper Dropbox on CourseLink.

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

Electronic recording of classes is expressly forbidden without consent of the instructor. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

University Policies

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 [Student Accessibility Services](#) 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 March 9th. For regulations and procedures for Dropping Courses, see the [Schedule of Dates in the Academic Calendar](#).

[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.