



## PSY 280H1 Winter 2022 – Sensation and Perception

Thursdays, 1–4pm, Earth Sciences, room 1050

### Contact Information

#### Instructor

Dr. Michael Mack  
*Preferred contact:* Message in Quercus  
*Email:* michael.mack@utoronto.ca  
*Office hours:* TBA, via Zoom

#### Teaching Assistants

Emily Heffernan, Dory Xie, Nicolas Deom  
*Preferred contact:* Message in Quercus

### Course Description, Goals, Prerequisites

The purpose of this course is to examine how we perceive our environment through our senses. As we will find out in this class, there are two parallel realities, the physical reality around us, and the psychological reality inside of our brain. In many cases, these two realities can be quite distinct. We will focus on how our senses of vision, hearing, touch, smell, and taste interact with the physical world to create our perception of reality.

#### Goals

Upon successful completion of this course, students will be able to:

- describe the sensory systems
- distinguish between sensation and perception
- explain how sensory and perceptual processes shape our experience of reality
- explain the basic principles of classical psychophysics
- explain how human sensory systems respond to energy in the physical environment and transform it into a perceptual experience that the brain can understand
- compare and contrast the five sensory systems in terms of their sensory/anatomical properties and perceptual organization
- explain the roles of prior knowledge and inference in our perceptual judgments and our conscious experiences
- identify and define the leading terms, concepts, theoretical perspectives, empirical findings, and historical trends in the study of sensation and perception
- compare and contrast psychological principles, theories, and methods as they pertain to sensory and neurological systems
- critically read, understand, and evaluate scientific literature, understand and use scientific and technical vocabulary, and synthesize information from multiple sources

#### Prerequisites/Exclusion

Prerequisite: PSY100H1/PSY100Y5/PSYA01H3/COG250Y1

Exclusion: PSY280H5/PSYB51H3

**Note about prerequisites:** It is your responsibility to ensure that you have met **all** prerequisites listed in the Psychology section of the A&S Calendar for this course. If you lack any prerequisites you WILL BE REMOVED. No waivers will be granted.

## Course Materials

### Textbook

Sensation & Perception, 6<sup>th</sup> Edition, 2020

by Wolfe, Kluender, Levi, Bartoshuk, Herz, Klatzky, & Merfeld

ISBN: 9781605359724

eBook: <https://uoftbookstore.vitalsource.com/products/sensation-and-perception-jeremy-wolfe-keith-kluender-v9780197542705>

We will frequently refer to the accompanying online material (5<sup>th</sup> edition content is available for free): <http://oup.com/us/wolfe5e>

### Lecture content

Lecture slides, videos, assignments, and activities will all be posted on Quercus. All material for each week will be posted on Monday. Following all of the posted communications on Quercus will be essential for success in this course. Keeping up with the readings and lecture content will be a key responsibility for all students.

### In-person demo and QA sessions

If provincial and university guidelines change to allow in-person instruction, we will have weekly in-person sessions during our allotted class time and location (Thursdays, 1-4pm, ES 1050) to review that week's lecture content, provide additional demonstrations and discussions, and answer student questions.

## Course Evaluation

This course includes the following assessments worth a total of 1000 points:

- i) **Review quizzes (100 points).** Review quizzes will be posted on Quercus for each week that includes lecture content. Quizzes will consist of a mix of multiple choice, short answer, and long answer questions. There will be 11 review quizzes over the course of the semester, each worth 10 points. The lowest of the 11 grades will be dropped, resulting in a total of 100 points for the review quizzes. Review quizzes will be available all week but must be completed within 60 minutes after starting the quiz. Quizzes will be due on Fridays at 11:59pm.
- ii) **Writing assignments (250 points).** Details of the two writing assignments (each worth 125 points) will be announced on Quercus. The writing assignments will each consist of three main components: a complete paper draft, peer reviews, and a final paper. All materials must be submitted online to Quercus in by the due dates. Late submissions will be accepted, but 10 points will be subtracted for each day or fraction of a day that the assignment is late. **Note: 1) paper drafts must be turned in by the deadline to participate in peer review; and 2) both the paper draft and peer reviews must be completed to receive a mark for the final paper.** The deadlines for each component are listed below:

Writing assignment 1	Draft	Feb 7 (11:59pm)
	Peer review	Feb 14 (11:59pm)
	Paper	Feb 28 (11:59pm)
Writing assignment 2	Draft	Mar 21 (11:59pm)
	Peer review	Mar 28 (11:59pm)
	Paper	Apr 4 (11:59pm)

**iii) Midterm assessment (300 points).** An online midterm test covering the material from the first half of the course will be written on March 3-4. The midterm will be available for a 48-hour window and must be completed in 120 minutes once it has been started.

**iv) Final assessment (350 points).** An online final assessment covering the material from the entire class will be written during the Final Examination Period (April 11-29). Details for this assessment will be announced on Quercus. The final assessment will be similar in structure to the midterm test with a mix of multiple choice, short answer, and long answer questions. It will be available for a multiple day window with a specific time limit to finish once it has been started.

**Extra credit: (10 total bonus points).** Students can receive 10 bonus points for participating in one 1-hour online psychology experiment. See Quercus for more details on how to participate.

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## Grading Policy

I strictly follow the official U of T grading scheme:

<http://www.writing.utoronto.ca/advice/general/grading-policy>

I do not round grades. That is, you actually have to achieve 80% to get an A-, for instance. 79.9% is not enough. There has to be a cut-off somewhere, and the U of T grading scheme provides specific cut-offs for letter grades.

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## Course Policies

### Unable to participate

Students who are absent from academic participation for **any reason** (e.g., COVID, cold, flu and other illness or injury, family situation) and who require consideration for missed academic work should report their absence through the online absence declaration. The declaration is available on [ACORN](#) under the Profile and Settings menu. In addition to submitting this declaration, please contact me as soon as you can.

### Missed Tests

This course has been designed around flexibility for students. For example, all lecture review quizzes will be available for a week. And, both midterm and final assessments will be available for several days to ensure students have the best opportunity to complete them. Of course, if you are unable to follow along with the course schedule due to an illness, please contact your college registrar for potential accommodations.

### Penalties for Lateness

Online quizzes, midterm, and final assessments must be completed by their deadline. Late submissions will receive 0 points. Writing assignment components submitted on time will receive feedback and/or marks from the TAs. Late writing assignment submissions will be marked but no feedback will be provided. Writing assignment submissions that are more than 24 hours late will be penalized with a 10-point deduction per day.

### Religious accommodation

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of backgrounds, cultural traditions, and spiritual beliefs. For my part, I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate being absent from class or missing a major course activity (like a test, or in-class assignment) due to a religious observance, please let me know as early in

the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

### **Communication Policy**

The first rule of contacting the instructor or TAs is to never use email. Emails are easily lost and the transition to teaching online has only made the issue worse. Check the syllabus, materials posted on Quercus, and Quercus discussion boards before contacting us. You will have answers to most of your questions there. After checking all of these, if your question remains, contact us with a message on Quercus. We will respond as soon as we can.

### **Original**

Students will be required to submit their writing assignments to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation website (<https://uoft.me/pdt-faq>).

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## **Academic Resources**

### **Ongoing Learning Disability or Accommodation Requirement**

Students with diverse learning styles and needs are welcome in this course. If you have an ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) (<http://accessibility.utoronto.ca>) at the beginning of the academic year. Without registration, you will not be able to verify your situation with your instructors, and instructors will not be advised about your accommodation needs. AS will then assess your medical situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. Remember that the process of accommodation is private: AS will not share details of your condition with any instructor, and your instructors will not reveal that you are registered with AS.

### **Writing**

As a student here at the University of Toronto, you are expected to write well. The university provides its students with a number of resources to help them achieve this. For more information on campus writing centres and writing courses, please visit <http://www.writing.utoronto.ca/>.

If English is not your first language, you may want to consider the English Language Learning program of the Faculty of Arts and Science: <http://www.artsci.utoronto.ca/current/advising/ell>

### **Academic Integrity and Plagiarism**

All students, faculty and staff are expected to follow the University's guidelines and policies on academic integrity. For students, this means following the standards of academic honesty when writing assignments, collaborating with fellow students, and writing tests and exams. Ensure that the work you submit for grading represents your own honest efforts. Plagiarism—representing someone else's work as your own or submitting work that you have previously submitted for marks in another class or program—is a serious offence that can result in sanctions. Speak to me or your TA for advice on anything that you find unclear. To learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at <http://www.writing.utoronto.ca/>. Consult the Code of Behaviour on Academic Matters for a complete outline of the University's policy and expectations. For more information, please see <http://www.artsci.utoronto.ca/osai> and <http://academicintegrity.utoronto.ca/>

## Provisional Course Schedule

Lecture	Date	Topic	Reading
1	Jan 13	Introduction & First Steps in Vision	Ch. 1 & 2
2	Jan 20	Retinal Information Processing & Spatial Vision	Ch. 2 & 3
3	Jan 27	Object Recognition	Ch. 4
4	Feb 3	Colour Perception	Ch. 5
5	Feb 10	Perception of 3D Space	Ch. 6
6	Feb 17	Attention and Scene Perception	Ch. 7
	Feb 24	Reading Week – no class	
	Mar 3-4	Midterm Exam	Ch. 1-7
7	Mar 10	Motion Perception	Ch. 8
8	Mar 17	Hearing	Ch. 9
9	Mar 24	Hearing & Vestibular System	Ch. 10 & 12
10	Mar 31	Touch & Olfaction	Ch. 13 & 14
11	Apr 7	Taste & Final review	Ch. 15
	TBA	Final Exam	All material

**Note:** Last day to drop course from academic record and GPA is March 14, 2022.