

Sensation & Perception 830:301:04 Fall 2019

Instructor: Dr. Melchi M. Michel
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Office Hours: Thurs. 11am-12pm (or by appointment; schedule via email)

Lecture

Sections	Days	Time	First Meeting	Location
04	Tue. & Thu.	3:20pm – 4:40pm	09/03/2019	SEC 118

Course Materials

Readings:

- Required Textbook: *Sensation & Perception. 5th Ed.* (Wolfe, Kluender, Levi, et al., 2017) ISBN: 978-1605356419
- Additional assigned readings, including materials on the textbook's [companion website](#) (CW) and journal articles (JA), will be announced and posted via the course Sakai page. These will also be available via hyperlinks in the Associated Readings column of the course schedule below.
- You should try to complete each reading *before* attending its associated lecture(s)

Course Goals

This course will provide an introduction to the scientific study of sensation and perception. We tend to think of the ability to perceive the world around us as an automatic process that happens 'for free' whenever we use our eyes, ears, nose, and other sense organs. But sensation-and-perception is an active process that relies on exquisitely sensitive receptors and powerful computational machinery housed in the brain, spinal cord, and peripheral nervous system. Our perceptual capabilities have been honed by evolution over many millions of years to arrive in their current form. The central focus of this course will be to examine how these sensory systems work and why. We will undertake a detailed study of the major senses (vision, audition, touch, smell, taste), using insights and methods from a variety of disciplines (philosophy, physics, computer science, neuroscience, psychology). We will begin with a study of the physical basis for perceptual information (e.g., light, sound waves), and proceed to the biological and psychological processes by which such information is converted to percepts in the brain.

Course Requirements

Attendance & Participation:

Attendance for this course is mandatory. The class will cover many new conceptual issues, some of which are not covered in the textbook. You are unlikely to learn the material without attending lectures. Should you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.

Students are expected to pay attention in class. Use of computers and other electronic devices for anything other than note-taking is distracting to fellow students and is not permitted. Should I perceive a student's behavior to be disruptive to fellow students in the class, I will ask the student to leave the classroom.

Exams:

Two closed-book midterm exams will be administered in class during the sixth and eleventh weeks of the semester, and a final exam will be administered during the official Rutgers final examination period. These exams will consist primarily of multiple-choice questions, but short answer and essay questions may also be included. Exam topics will include any of the assigned readings as well as anything covered in class (i.e., including in-class topics not covered in the readings). You will be responsible for bringing a pencil or other writing implement appropriate to answer Scantron-based multiple-choice questions to each exam.

The (comprehensive) final exam will be structured similarly to the midterm exams, but will be somewhat longer, and will carry twice the grade weight of the midterms. Please check the course schedule below for date of this final exam.

Students must take all three exams, and will be expected to take the exams at their scheduled dates and times. If you are so ill that you cannot physically take the exam on the scheduled day, you must let me know *before* the start of the exam, and you will need to provide a valid and documented excuse. In these (rare) cases, a make-up exam will be offered during the reading period at the end of the semester. This exam will be different than the corresponding midterm exam offered during the semester, and may vary considerably in both content and format.

If an exam is cancelled or postponed on the day of the exam, there will be a member of the Psychology Department in the room at the scheduled time to make the announcement. Notices posted on doors or on the blackboard are likely hoaxes.

Grade Breakdown

Component	Weight
Midterm Exam I	22.5%
Midterm Exam II	22.5%
Final Exam	45%
Attendance & Participation	10%
<i>Total</i>	<i>100%</i>

Academic Integrity

Collusion (getting any form of assistance from other students or outside sources) on exams is prohibited. Students suspected of doing so will be brought up on charges before university's Office of Student Conduct, and penalties, up to and including expulsion, will be imposed for those found guilty. (See <http://academicintegrity.rutgers.edu/academic-integrity-policy/> for specifics).

Academic Accommodations

Should you require academic accommodations, you must file a request with the Office of Disability Services for Students (<https://ods.rutgers.edu/my-accommodations>). You should register with disability services as soon as possible. It is your responsibility to self-identify with the Office of Disability Services and to provide me with the appropriate documentation from that office at least one week prior to any request for specific course accommodations. There are no retroactive accommodations. If you require accommodations for exams (e.g., extended time, reduced distractions) you will be responsible for setting up and scheduling your own accommodations for each exam. The request form can be found at <https://ods.rutgers.edu/my-accommodations/exam-request>.

Anticipated Course Schedule

The schedule below is subject to change. Please check the Sakai site regularly for announcements, updates, and additional readings.

Week	Dates	Topics	Associated Reading(s)
1	Tue. 9/3 Thu. 9/5	Course Introduction & Overview Philosophy & Basic Methods	Web Essay 1.1 (CW) Chapter 1

Week	Dates	Topics	Associated Reading(s)
2	Tue. 9/10	Weber's Law & Psychophysics	Chapter 1
	Thu. 9/12	Light, Optics, & Early Vision	Chapter 2
3	Tue. 9/17	Retina & Receptive Fields	Chapter 2
	Thu. 9/19	Visual Cortex & Spatial Vision I	Chapter 3
4	Tue. 9/24	Visual Cortex & Spatial Vision II	Chapter 3 & Michel-2013 (optional)
	Thu. 9/26	Object Recognition	Chapter 4
5	Tue. 10/1	Color Perception I	Chapter 5
	Thu. 10/3		
6	Tue. 10/8	Midterm Exam I	
	Thu. 10/10	Color Perception II	Chapter 5
7	Tue. 10/15	Space & Depth Perception I	Chapter 6
	Thu. 10/17	Space & Depth Perception II	
8	Tue. 10/22	Motion Perception	Chapter 8
	Thu. 10/24	Eye Movements	
9	Tue. 10/29	Attention	Chapter 7
	Thu. 10/31		
10	Tue. 11/5	Sound & Audition	Chapter 9
	Thu. 11/7		
11	Tue. 10/12	Auditory Perception I	Chapter 10
	Thu. 10/14	Midterm Exam II	
12	Tue. 11/19	Auditory Perception II	Chapter 10
	Thu. 11/21	Vestibular Sensation	Chapter 12
13	Tue. 11/26	Somatosensation I	Chapter 13
14	Tue. 12/3	Somatosensation II	Chapter 13
	Thu. 12/5	Olfaction	Chapter 14
13	Tue. 12/10	Gustation	Chapter 15
Final	Mon. 12/23	FINAL EXAM @ 12pm Be sure to check http://finalexams.rutgers.edu/ for updates	