

Psychology 301:01, Sensation and Perception. Fall 2022

Last update: August 26, 2022

canvas site: <https://rutgers.instructure.com/courses/189903>

Instructor: Professor Eileen Kowler <https://rucss.rutgers.edu/kowler>

PLEASE CONTACT USING THE CANVAS email tool.

Dr. Kowler's office hour on zoom:

Tuesdays, 10:30 – 11:30. Meeting ID: 932 4487 5592. Passcode361100

Learning goals

- Learn about theories and approaches in the field of perception.
- Understand the **links between mind and brain**. The functional link between mind and brain is the MAIN THEME OF THIS ENTIRE COURSE.
- Develop an appreciation for experimental science including how evidence is gathered to support a theory and how theories are challenged by contradictory evidence. Become a better critic!
- Appreciate the role of perception in our lives and the lives of other living things, including how perception affects our conscious experience, our behaviors (whether we're aware of it or not) and the decisions we make about our environments.

A note about “mind and brain”. This is not a course in brain science. No prior knowledge of neurons or brains is required or needed, nor are we going to include technical aspects of neuronal function. Even if you do have such prior knowledge, it won't necessarily address the major theme of the functional link between mind and brain. I welcome each of you to approach the field of sensation and perception with fresh eyes and ears.

Readings

There is no required textbook.

There are: required readings, assignments and exams.

There are two types of required reading:

(1) ***Detailed powerpoint presentations posted on canvas***. Reading presentations in detail is required. These presentations will not be shown in the same form in lecture class.

IMPORTANT: The presentations shown in lecture will be based on these presentations but will not be identical. Material may be discussed in class that is not on the posted presentations. Material may be in the posted presentations that will not be discussed in class.

(2) ***Required readings of articles or book chapters available through canvas***. Some readings can be found on canvas within the modules. Other readings can be found using the “reading list” feature of Canvas. If a reading the reading list feature this will be marked on the syllabus.

Syllabus

Readings listed as of August 29, 2022. Additional readings will be added at later dates.

Unit 1: What is the science of sensation and perception and how do we study it?

Date	Topic	Presentation	Additional reading
	Academic integrity	Readings and required quiz on canvas	
Sept 6	Introduction & Major Themes	Presentation 1	
Sept 9	Historical background: Questions developed by philosophers (17th-19th centuries). Foundational discoveries about neural conduction (17th-19th centuries).	Presentation 2	Chalmers, TED talk
Sept 13	Historical background: Foundational discoveries about neural conduction (17th-19th centuries).	Presentation 3	Cobb, 2002
Sept 16	Mueller and the link between mind and brain.	Presentation 4	Mueller, 1838
Sept 20	Somatosensation (touch, temperature, pain)	Presentation 4	“The Itch”
Sept 23	Gustav Fechner and the creation of the science of psychophysics	Presentation 5	To be added
Sept 27	A classical problem: The absolute threshold for seeing- I	Presentation 6	Tong, pp. 12-15
Sept 30	A classical problem: The absolute threshold for seeing- II	Presentation 6	To be added
Oct 4	Perception and decisions: signal detection and related approaches	Presentation 7	Tong, pp 1-4
Oct 7	Exam 1		

Unit 2: The stages of visual processing

Date	Topic	Presentation	Additional Reading
Oct 11	Perception of color I	Presentation 8	To be added
Oct 14	Perception of color II	Presentation 9	To be added
Oct 18	Brightness, lightness, contrast	Presentation 10	To be added
Oct 21	Brightness, lightness, contrast	Presentation 10	To be added
Oct 25	Visual hierarchies	Presentation 11	To be added
Oct 28	Early vision	Presentation 12	To be added

Nov 1	Early vision	Presentation 12	To be added
Nov 4	Mid-level vision	Presentation 13	To be added
Nov 8	Object recognition	Presentation 14	To be added
Nov 11	Exam 2		

Unit 3: Motion, depth, attention; Hearing and speech perception

Date	Topic	Presentation	Additional Reading
Nov 15	Motion	Presentation 15	To be added
Nov 18	Depth	Presentation 16	To be added
Nov 23	Development; learning	Presentation 17	To be added
Nov 29	Mid-unit review		
Dec 2	Attention	Presentation 18	To be added
Dec 6	Hearing	Presentation 19	To be added
Dec 9	Speech	Presentation 20	To be added
Dec 13	Sensation and Perception in 2022		

Course Grades:

Exam 1: 25%

Exam 2: 25%

Exam 3: 30% (includes some questions based on Units 1 and 2)

Additional required assignments: 20%

There will be no optional or extra credit work

The scale for converting accumulated points to final letter grades will be announced later in the semester.

How to do well in this course

- Don't miss class
- Prepare: do the reading in advance. Review afterwards
- Ask, ask, ask. If you have a question, I can assure you someone else does. Ask in class.
- Listen, think, ask. Aim for understanding.
- Take notes wisely. Don't let note-taking get in the way of listening, thinking, and understanding.
- Scientists (and, Psychology is a science) ask questions, make observations and draw conclusions. Keep these three domains in mind when you learn about the field of sensation and perception.
- Be prepared! Don't wait for the last minute before exams. Do the reading on time.
- In Sensation and Perception important concepts are summarized in pictures and graphs. Think about what's plotted in the graph. If you understand the graphs, you'll understand the material. DON'T skip the graphs.
- And, don't miss class. Stay alert. Participate. Stay engaged.

Academic Integrity

Our goal in this course is learning. We cannot achieve this goal, and I cannot treat all equally and fairly, without strict adherence to the principles of academic integrity.

Violations of academic integrity are taken very seriously. By enrolling in this course, you assume responsibility for familiarizing yourself with the Academic Integrity Policy and the possible penalties (including suspension and expulsion) for violating the policy. As per the policy, all suspected violations will be reported to the Office of Student Conduct. Academic dishonesty includes (but is not limited to):

- Cheating
- Plagiarism
- Aiding others in committing a violation or allowing others to use your work
- Failure to cite sources correctly
- Fabrication
- Using another person's ideas or words without attribution—re-using a previous assignment
- Unauthorized collaboration
- Sabotaging another student's work in doubt, please consult the instructor

<http://nbacademicintegrity.rutgers.edu/>

Resources for Students: <http://nbacademicintegrity.rutgers.edu/home/for-students/>

Honor pledge:

All students will need to sign the Rutgers Honor Pledge **in the Week 1 assignment**

On my honor, I have neither received nor given any unauthorized assistance on this assignment

Student-Wellness Services:

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/

<http://health.rutgers.edu/medical-counseling-services/counseling/>

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community, and consultation and collaboration with campus partners.

Crisis Intervention : <http://health.rutgers.edu/medical-counseling-services/counseling/crisis-intervention/>

Report a Concern: <http://health.rutgers.edu/do-something-to-help/>

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis

intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form> .