

Welcome!

Welcome to Sensation and Perception!

Sensation & Perception is the area of psychology that studies how humans and other animals convert information from the outside world into information that brains can use, and convert it into information we (or the animal) can use to navigate the outside world.

In this class, we will be examining this process from a broader, information-theoretic based angle. We will also be discussing and learning about the scientific process: how observation of phenomena become hypotheses become experiments and become theory.

Even if you are not planning on becoming a Sensation & Perception researcher, understanding the ranges and limits of our brain's abilities, and understanding the process of scientific thinking, will be helpful to you in whatever you plan on doing!

Enjoy!

Learning Goals

1. Develop scientific and critical reasoning skills.
2. Learn about the fundamental theories and approaches to the field of perception.
3. Understand some of the links between mind and brain, and how those links are discovered.
4. Increase participation in lecture class by asking questions and contributing to discussions.

Materials

Book: Sensation and Perception, 4th edition. Wolfe JM, Kluender KR, Levi DM et al. (2015). Sinauer Associates. ISBN: 9781605352114 . Note: You **do not need** both the looseleaf and hardback version.

Book website: <http://sites.sinauer.com/wolfe4e/>. Contains some demos, essays, and term definition/quizzes.

Ten Helpful Hints

1. The most important requirement for doing well in this class is to pay attention in class. Lecture attendance will not be monitored, but understanding the material presented in class is crucial. See discussion in the section "Syllabus: Reading" for more information.

2. The course content is cumulative so if you miss class, your understanding of material in subsequent classes will be compromised.
3. Ask questions in lecture if you're confused. New material relies on the concepts already developed.
4. Ask questions for information, to test your own knowledge and to develop critical skills. If you're not convinced by an argument, say so. Answer questions that are posed in lecture.
5. Make sure you understand the main points of each lecture and the main points of the reading material. You should be able to understand how specific examples and specific details relate to the main themes. Test yourself by writing a short summary or an outline of the lecture. Don't rely on the feeling that you know what's going on. See if you can state the main points.
6. Each lecture builds on the material of the prior lectures. Review your notes, with special emphasis on the main themes, before coming to class.
7. The second most important requirement for doing well in this class is to pay attention to the reading. When reading the text, pay particular attention to the key words and to the graphs and figures. This is where the authors are putting the most important information.
8. Pace your reading wisely. Do not leave it all for the last minute.
9. For individual help, see me after class, or during office hours, or make an appointment.
10. If you would like to discuss exam performance, bring your exam to office hours. Often there is a pattern to the errors that can be diagnosed only by examining your performance. In the interest of fairness to all, no questions will be answered during exams. To do so is equivalent to giving some students help or hints at the expense of other students.

Reading and Lecture

Reading: The material covered in the course is cumulative. Ideas introduced in the first few lectures will be amplified and developed throughout the semester. The required reading overlaps only in part with the corresponding lectures. Some issues developed at length in lecture may be given scant attention in the text while some issues discussed in detail in the text will not be covered in lecture. There will also be some points on which text and lecture do not agree and these will be described as we get to them. The differences between the text and lecture are as it should be: the text and the lecture complement each other; they are not intended to be redundant. **You are nonetheless responsible for material in both.** "Posted readings" (see below) refers to material to be posted on the class website on Sakai.

Class Requirements

Missed classes: You are responsible for material covered in classes that you may miss. To find out what was covered borrow notes from another student. Then, to discuss material, ask questions, or get additional explanations, come to office hours or make an appointment.

Weekly Assignments: There will be assignments weekly on the website. They will be under "Quizzes," ONLY because the way the website works. All assignments will be worth about 10% of your grade in total. They must be done weekly. There will be no late assignments allowed.

Hourly exams: 3 exams (see syllabus for dates). The third exam will occur during finals week on the date scheduled by the university.

Exam requirements: Students are required to take all exams. If you miss an exam for a legitimate reason (e.g., illness) you must submit an official excuse (e.g., doctor's note). A make-up exam, composed entirely of short essay questions, will be given at the time of the final. If you do not submit an excuse note, a grade of 0 will be assigned and no make-up will be given. Once you begin work on an exam it will count. No exam scores will be dropped. So, if you are ill, do not take the exam – see your doctor! If you miss the final exam for a legitimate reason, a make-up will be scheduled. There will be no excused absences from the final.

Outside Class Time

As per University and School (SAS) policy, this course assumes that all students will be spending at least 100 minutes per credit hour on activities pertaining to the class **outside** of the classroom. This means you should plan to be spending approximately 5 hours outside of this class on the material. In general, the reading in the textbook is **not** meant to take 5 hours: the additional time would be spent studying the material, such that you know what you really understand, and you know what you need to ask questions about.

Instructor Information

Cordelia Aitkin, PhD

Office Hours: TBA and by appointment

Contact Information: cdaitkin@rci.rutgers.edu

Course Grade

All grades submitted to the University are final.

Course grades will be calculated from the grades you earn on the exams and the weekly assignments, and will be based on the percentage system as follows:

A: 86-100%.
 B+: 81-85.9999%.
 B: 70-80.9999%.
 C+: 65-69.9999%.
 C: 60-64.9999%.
 D: 50-59.9999%.
 F: <50%

These cutpoints will apply to everyone. No adjustments in cutpoints will be made for individual students.

Schedule of Topics

Note: Schedule is subject to change

Unit 1: Origin and nature of the study of perception

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|-----------------------|---------------------------------------|--|
| Sept. 7 | Introduction to major themes | |
| Sept. 11 | Fundamental problem of perception | "The Itch" (posted) + Ch 13 (pp. 389 - 405 4th edition; pp. 363 - 376 3rd edition) + book website, Ch 13 |
| Sept. 14 | Approaches to the study of perception | "Face-blind" (posted) |
| Sept. 18 | Mental life and neural events | Chapter 1 + book website, Ch 1 |
| Sept. 21 | Fechner and psychophysics | |
| Sept. 25 & 28, Oct. 2 | Visual detection | Ch 2 (pp. 31 - 42; 47 - 50 4th edition; pp 31-43; 48-50 3rd edition)+book website Ch2 |
| Oct. 5 | Unit 1 EXAM: 30 points | |

Unit 2: Early vision

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|-----------------|---|---|
| Oct. 9, 12 | Color | Ch 5 + book website Ch5 |
| Oct. 16 | Mach Bands; intro to receptive fields | Ch 2 pp. 42- 47 (4th edition); pp. 43-48 (3rd edition) + book website Ch2 |
| Oct. 19, 23, 26 | Spatial vision: psychophysics and neurophysiology | Ch 3 to p 80 + book website Ch3 |
| Oct. 30 | Lightness, Brightness | Adelson (2000), posted |
| Nov. 2 | Mid-level vision | Ch 4, pp. 89 - 110, 4th edition; pp. 85 - 105 3rd edition+ book website Ch4 |
| Nov. 6 | Object recognition | Ch 4, pp. 110 - 119 4th edition; pp. 106 - 113 3rd edition |
| Nov. 9 | Unit 2 EXAM: 30 points | |

Unit 3: Aspects of vision and audition

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| Nov. 13 | Perceptual development | Ch 3, pp 83 - 85 4th edition; pp. 80-82 3rd edition + Posted readings |
| Nov. 16 | Perception of depth and stereo | Ch 6 + book website Ch6 + Posted readings |
| Nov. 20 and NOV. 21: TUESDAY IS THURSDAY CLASSES | Perception of motion and location | Ch 8 + book website Ch 8 |
| Nov. 27, 30 | Attention and scene perception | Ch 7 + book website Ch 7 +Posted readings |

Dec. 4, 7

Hearing

Ch 9 + book website Ch9

Dec. 11

Speech perception

Ch 11, pp 328 - 346 4th edition;
pp. 309 - 328 3rd edition +
book website Ch 11

Final Exam

Final Exam: 40 points. 30 points on the third unit of the class, and 10 covering the entire semester.

The Final Exam is as scheduled by the University: **Thursday, December 21, noon - 3 pm**

If you have a conflict as defined here (item 4, under "Rules for Final Examinations") and you plan on rescheduling **this** class's final exam, please see Dr. Aitkin as soon as possible.

Office of Disabilities

If you have a documented disability, you must get the paperwork to me (Dr. Aitkin) as soon as possible; I cannot provide accommodations (note-taking; additional time on exams; etc.) without it. Please contact ODS immediately.

Electronics

There is NO cell phone use (no texting; messaging; browsing) during class.

No laptop use in class EXCEPT for note-taking. In recent years the frequent use of laptops for activities unrelated to class has become a problem. Students are often unaware of how distracting to the instructor and to other members of the class these activities are. Since attention to the class is a requirement, the policy of no irrelevant laptop use will be enforced by deductions of points from the grade. If this policy proves to be insufficient to prevent irrelevant and distracting laptop use, then I will prohibit all laptop use during class.

Recording

No electronic recording of the lecture is allowed. This includes photos, videos, audio recording, cell-phone-based, and any other type of electronic recording.

Extra Credit

Any extra credit will be offered only at the discretion of the instructor, and only to the entire class. No personal requests for extra credit will be honored; requesting personal extra credit assignments is disrespectful to your classmates.

Email Policies

The best way to contact me is through email. Please note that due to Federal Regulations protecting your privacy, I cannot respond to emails sent from non-Rutgers email accounts, and you will get an auto-response saying as such.

As I teach multiple subjects and sections, please include the course and section number in the subject, and your full name in the email itself.

Please note that lengthy or complex issues will not be discussed over email. Grades will never be discussed over email, for your own privacy.

Feel free to send me an email at any time! However, be aware that I am rarely available immediately, and it may take up to a full business day for me to respond. If I haven't responded after two business days, please re-send the email.

University Vs. Sakai

Be sure to keep track of information from the University, such as meeting times and exam times. If there is a conflict between our website and the University posting, assume the University posting is correct.

Cheating/Plagiarism

Any form of cheating or plagiarism - including but not limited to looking at other exams - will not be tolerated, and will incur penalties as described in the University Policy on Academic Integrity, which can be found [here](#) (will open in a new window).

Agreement to Policies

If you decide to stay enrolled in this class after logging onto Sakai, I will assume you have read the entire syllabus and have agreed to all the policies, dates, assignments, etc. outlined.