

# Sensation & Perception

## Psychology 330: Sensation and Perception

Fall 2009

Tuesday & Thursday, 11:30 - 1:00

Brown Hall 100

**Instructor:** Richard Abrams

[RABRAMS@wustl.edu](mailto:RABRAMS@wustl.edu)

935-6538 (email is a better way to reach me)

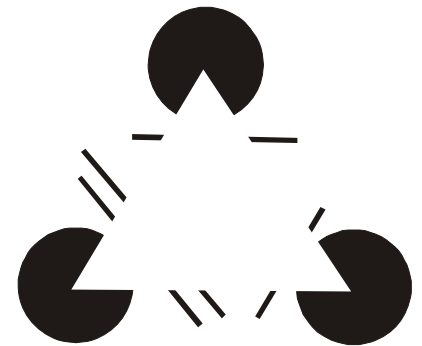
323B Psychology Building

Office hours: Monday & Wednesday 1:00 - 2:00.

You can just stop by my office-- but to avoid an unnecessary trip, check the course web page for a (usually rare) rescheduling of some office hours.

I'm also available by appointment ([rabrams@wustl.edu](mailto:rabrams@wustl.edu), 935 6538).

Email is the best way to reach me.



Lecture slides, grades, etc: <http://rabrams.net>

Select Courses, then select this course.

You may be asked for the following:

**Username:**

**Password:**

**Teaching Assistant:** Carolyn Dufault ([cdufault@wustl.edu](mailto:cdufault@wustl.edu), 935-6456)

Psychology Building

Office hours: Tuesday and Thursday 3:30 – 4:30 in Psychology 320C

**and other times by appointment.**

**Text:** Goldstein, E. B. (2010). *Sensation and Perception* (8th edition). New York: Brooks Cole Publishing.

Companion website: (there is a link on the course web page)

[http://www.wadsworth.com/cgi-wadsworth/course\\_products\\_wp.pl?fid=M20bI&flag=instructor&product\\_isbn\\_issn=9780495601494&disciplinenum=24](http://www.wadsworth.com/cgi-wadsworth/course_products_wp.pl?fid=M20bI&flag=instructor&product_isbn_issn=9780495601494&disciplinenum=24)

### Course objectives:

What's involved in seeing and hearing? In this course you will learn about a range of topics crucial for perception including: (1) attributes of the physical stimuli (light and sound) that impinge upon the sensory receptors, (2) details about the physiological mechanisms that convert the physical stimuli into electrical signals in neurons, and (3) properties of our perceptual experiences and the higher-level cognitive mechanisms that operate upon them. Demonstrations and illusions will be used as we learn about these topics. You may see (and hear) the world in a very different way after learning about some of the details of our perceptual systems!

### How to succeed in this course

In order to master the material covered in this course it is important for you to attend the lectures and also for you to read the material in the textbook. There will be considerable overlap between the textbook and the lectures, with many important concepts being described in both book and lecture. However, there also is additional

material that will be presented in the lecture that is not contained in the textbook. (Similarly there is some material in the book that will be discussed only minimally in lecture.)

To succeed in the course I suggest that at a minimum you skim over the material in the textbook prior to the class in which the material is to be discussed. Doing this will give you a basic sense of the main concepts--and that can help you get the most out of the lectures. Then, after the lecture, re-read the corresponding sections in the textbook. At that time you may be better able to appreciate some of the material in the book, since it will have been discussed in the lecture.

The lecture slides will be available on the course website (<http://rabrams.net>) prior to each lecture. (I am constantly updating these so often they are not available until the night before class.) Many students find it very helpful to print these lecture slides and bring them to class in order to take notes on them. You will see that the slides are not a substitute for attending the lectures: most of the slides contain very little text, and you really need the explanation from lecture in order to make sense out of them. I provide the slides so that in class you can focus more on learning the concepts that are under consideration instead of expending effort scrambling to be sure that your notes are complete.

In addition to keeping up with the readings, and attending lectures there are other steps that you can take that will help you master the course material. First, the publisher of the textbook has a companion website (the url is included above) that contains a few features that might help. In particular, for each chapter of the textbook there are "flashcards" and "multiple choice quizzes" that allow you to test your knowledge of key concepts. Also, the instructor and teaching assistant each have regular office hours and are also available by appointment to answer any questions that you might have. We really want to help you learn the material! Finally, there will be optional review sessions prior to the exams that many students find helpful. These are scheduled for the day before each exam, at 5:00 pm. (See the course outline below for the exact location. Times and locations will also be announced in class.)

- Grading:**
- 3 in-class exams, each worth 30% of final grade
  - 1 optional final exam (see below for why it is optional)
  - 2 one-page papers, each worth 5% of the final grade. Details to be provided later in the semester. If a paper is turned-in late, the maximum you can earn will be reduced by one-fifth of the value of the assignment for each day or portion of a day late. For example, if your paper is up to 24 hours late, the maximum you can earn is 4% of the final course grade instead of 5%.
  - 2 hours of experiment research participation or completion of an alternative assignment. This is an excellent opportunity to learn first-hand about what is involved in perception experiments (but you may choose to participate in experiments that are not about perception, or to complete an assignment that is an alternative to experiment participation.) **Failure to complete this will result in a one-third letter grade reduction in your grade.** For more information, please visit the course web page and read about research participation.

The in-class exams will be mostly non-cumulative in nature; the optional final exam will cover material from the entire semester. **Of the three exams and the final, you can drop the lowest score! The course grade will be determined on the basis of your three highest exam scores.** Exams cannot be taken early, and there will be **no makeup exams**: if you miss an exam you will most likely want to take the optional final.

**Notice:** As in all courses, standards of academic integrity are expected to be observed in this course. Please see the course listings for a statement of academic integrity guidelines. Be especially careful on the papers.

---

## Course Outline

Introduction, psychophysics	Chp. 1, Appendix
Vision 1 (eye, retina, receptive fields)	Chp. 2
Vision 2	Chp. 3
Higher-level vision	Chp. 4
Color Vision	Chp. 9 (to p. 220)

### **Exam #1 (Thursday October 1<sup>st</sup>, 2009)**

**Optional review session Wednesday 9/30, 5:00 pm, Psychology 215A and B**

### **First short paper due October 20<sup>th</sup>**

Perceptual Organization, objects	Chp. 5
Attention	Chp. 6
Depth & Size Perception	Chp. 10
Lightness constancy	p. 220 - 225
Perceiving movement	Chp. 8

### **Exam #2 (Thursday November 5<sup>th</sup>, 2009)**

**Optional review session Wednesday 11/4, 5:00 pm, Psychology 215A and B**

### **Second short paper due November 19<sup>th</sup>.**

Perception & Action	Chp. 7
Hearing	Chps. 11 & 12
Speech Perception	Chp. 13

### **Exam #3 (Thursday December 3<sup>rd</sup>, 2009)**

**Optional review session Wednesday 12/2, 5:00 pm, Psychology 215A and B**

**Final Exam (optional) Tuesday December 15<sup>th</sup>, 2009 1:00 PM - 3:00 PM**

(Sorry, but the final exam cannot be taken early.)

