

SENSATION & PERCEPTION

Spring 2012

Course: Psych 301 / Sec 01 **Time:** MW 3:20 – 4:30pm **Index:** 67561

Place: Science and Engineering Resource Center 117
(SEC, SERC - Busch Campus)

(Campus Buses A, B, C, H)

118 Frelinghuysen Rd

Piscataway, NJ 08854-8019

See Campus Map, picture of the building and driving directions here

<http://maps.rutgers.edu/building.aspx?id=289>

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Office Hours: Wed, 5:00 – 6:30 pm

Office: Busch Psychology, Room 231 or Room 116

Textbook: Sensation and Perception, Any Edition (Wolfe et al) Sinauer

From time to time, additional readings and handouts will be made available as PDFs on the course webpage on Sakai.

<https://sakai.rutgers.edu/portal>

Course Description: The world as we perceive it is not "given" to our brains, but must be constructed, based on the pattern of stimulation impinging on the sensory systems. This course will introduce students to the study of sensation and perception, from the point of view of psychological and neurobiological approaches. Some of the questions this course will address are: What does it mean for any organism to "perceive" its environment? What kinds of problems must the brain solve in order to make perception possible? How can we scientifically measure someone's perception? What is the link between the perceptual appearance of things and brain activity? When we finish this class you will have learned a great deal on how our senses operate. We will see also how people with brain injury can be helped using the latest technology developed precisely because of our better understanding today on how sensory processes give rise to a percept.

Main goals of the Class

This class will familiarize you with the leading terms, concepts, theoretical perspectives, empirical findings, and historical trends in psychology. After you take this class you will be able to gain an understanding on basic research methods in psychology, including methods used in research design, data analysis and interpretation, to standard research problems and more importantly you will see in class many practical applications of these new results. You will learn about cutting edge research with translational value to help various patient populations and will learn to discuss and to think critically about the issues involved. You will acquire skills that will enable you to focus on a particular problem of the highly interdisciplinary psychological field today and its potential applications in other disciplines of science and engineering.

Those students pursuing research careers will also be able to start thinking on how to design new experiments, analyze information, and communicate their research effectively in reports that follow American Psychology research report style. Students will use critical thinking, skeptical inquiry, and, when possible, the scientific approach to ask, answer and understand questions related to behavior and mental processes. Students will apply psychological concepts and content to become engaged citizens.

The course is divided into three main parts.

Part I General overview: the brain, the neurons, the sensory systems, vision

Readings:

Weeks 1-2 Chapter 1 Introduction, history of Psychophysics, Mind-Body Problem today

Weeks 3-4 Chapter 2-3 Vision - the basics -

Weeks 4-5 Chapter 3-4 Vision – perception, attention, etc. -

Part II audition, speech, memory

Part III touch olfaction and taste.

Additional materials

<https://sites.google.com/site/classes2teachpsych/>

<https://sites.google.com/site/blurbaboutmywork/teaching/sensation-and-perception-class>

Exam schedule:

Exam 1 (35 points): 3:20 pm Feb 15th 2012 → Previous Monday we will review exam material in class

Exam 2 (30 points): 3:20 pm Wed March 28th 2012 → Previous Monday we will review exam material in class

Final (35 points): TBA

Final Exam Schedules are listed at: <https://finalexams.rutgers.edu/course/>

The final grade will be the sum of these 3 scores.

Attendance will be important for your grade. The exams are not cumulative.

Make-up exams for the midterms will be given the day of the final exam.