

**SYLLABUS: PSY U452**  
**Introduction to Sensation and Perception**  
**Fall Semester 2006**

Instructor: Dr. Yury Petrov  
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Class hours: Tue, Fri 11.45 am - 1.25 pm  
 Class place: 320 Shillman Hall (SH)

Content: Our survival would be impossible without the host of exquisite biological mechanisms (sensations) which tap into the stream of information pouring in from our environment. Because the brain operates in such a way that only the final stages of this process reach conscious awareness (perceptions), formation of perceptions appears effortless. In reality, the underlying mechanisms are subtle, amazingly ingenious and often extremely complex. This course will provide an overview of your sensory system, from biochemical processes of a single receptor cell in your skin, nose, mouth, ears and eyes, to intricate neural networks in the cerebral cortex. You will learn why we perceive the world the way we do, experience some tricks that the brain plays on us for our own good, and simply find out a lot of fun stuff about yourself. Practical reasons for studying human sensory system include knowing its limitations as well as the conditions when its performance is optimal, and knowing the nature and the manifestation of sensory impairments.

Required text: Blake, R. & Sekuler, R. (2006). *Perception*, 5th ed. New York, NY: McGraw-Hill, Inc.

Recommended texts:

Wolfe, J. M. et al. (2005). *Sensation and Perception*. Sunderland, MA: Sinauer Associates, Inc.

Schiffman, H. R. (2001). *Sensation and Perception*, 5th ed. New York, NY: John Wiley & Sons, Inc.

Prerequisite: PSY U101 Foundations of Psychology

Course format: Lectures, demonstrations, discussions.

Percent of final grade

- Homework (essay questions) 30%
- Midterm exam (40 multiple-choice questions) 30%
- Final exam (cumulative, 60 multiple-choice questions) 40%

Schedule:

Lecture #	Date	Content	Chapter, pages
1	Sep 08	Introduction and overview	01: 1 - 13
2	12	Organization of the nervous system: receptors, neurons, brain structures	
3	15	Organization of the nervous system: experimental techniques	01: 14 - 25
4	19	Touch: introduction & physiology	13: 471 - 481
5	22	Touch: perception	13: 457 - 471
6	26	Touch: pain	13: 481 - 493
7	29	Smell: introduction & physiology	Homework 1 due 14: 497 - 514
8	Oct 03	Smell: perception	14: 514 - 530
9	06	Taste: introduction & physiology	14: 531 - 539
10	10	Taste: perception	14: 540 - 552
11	13	Kinesthesia & balance	13: 481 - 486, 10: 366
	17	Midterm self-study	
12	20	Midterm exam	
13	24	Hearing: introduction and physiology of the ear	Homework 2 due 10: 353 - 376
14	27	Hearing: the auditory pathways and sound localization	10: 376 - 388

15	31	Hearing: perception of loudness and pitch	10: 389 - 410
16	Nov 03	Hearing: sound recognition, speech, and music	10: 410 - 423
17	07	Vision: introduction and physiology of the eye	02: 29 - 45
18	10	Vision: the retina	02: 46 - 49, 60 - 69
19	14	Vision: the visual pathways	03: 71-84, 04:111-50
20	17	Vision: color perception	Homework 3 due 07: 233 - 271
21	21	Vision: depth perception	08: 273 - 315
22	28	Vision: motion perception	09: 317 - 352
23	Dec 01	Vision: form perception	05: 151 - 192
24	05	Vision: object perception and attention	Homework 4 due 06: 193 - 231
25	13	Final exam	

Class Policies:

(1) In general, no makeup exams or assignments will be given. A missed examination will be given a grade of 0, unless a valid excuse is given to the instructor prior to the test. Valid excuses include sickness with a doctor's excuse, family emergencies, etc., but you must receive permission to miss a test prior to missing it. If it is due to an extreme emergency, it must be documented later. If the midterm exam is missed and a valid excuse is provided, the final exam will count 75% of the final grade.

(2) Some material on exams will be covered in lecture but is not in the reading; some will be in the reading but not covered in lecture.

(3) An "Incomplete" will be given only for valid reasons: family emergencies, serious illness, etc. In general, I will not give incompletes.

(4) Cheating will not be tolerated. The minimum punishment would be failure on the test.

(5) Please arrive for class on time; late entrants to the classroom can be very disruptive.

Notes:

Please come see me during office hours. This is your chance to get detailed answers to any questions you may have, clear up any confusions, and let me know more about you and your interests. Do not waste your opportunities: come talk to me.

Perception, like many other advanced topics in Psychology, requires a little background knowledge from other disciplines. Background requirements for this course are minimal. However, if you feel confused and suspect your difficulty is due to a lack of background (in neurophysiology or in basic math, for instance), I can help. Do not be discouraged: come see me for extra help. You can learn anything.