Lecture Instructor:
Thomas Sanocki, Ph.D.
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Office hour: M 1:30 PM, and by appointment
PCD 4127; 974-0498
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Lab Instructor:
Vince Castillenti
vcastil4@mail.usf.edu
Office hour W 5 – 6 PM

PERCEPTION
EXP 4204C FALL 2008

OVERVIEW

This course is an upper-level course designed to increase your appreciation and understanding of perception, the mind/brain, and the process of psychological inquiry. You will learn about basic research and theory in Perception — advanced concepts! You will also be encouraged to experience perception more deeply yourself.

OBJECTIVES

Specific learning objectives include:

1. *Scientific literacy*. Major life-relevant decisions are increasingly being made on the basis of scientific evidence. Therefore, you need to know about scientific information and the scientific process. You will learn about science through concentrated study on the interesting topic of human perception.

2. *Understanding of humanity*. Perception is a human process, and it provides an excellent portal into the mind/brain. This class will stimulate thinking about what it means to be human.

3. *Problem conceptualization*. Effective thinking about complex problems requires conceptualizing them within theoretical frameworks. Expect to learn some challenging but interesting problem-conceptualizations, and expect to write about them.

4. *Fun*. You will engage in perceptual activities in both lab and class, getting the chance to learn about the creativity and fun of science. Enjoy!

READINGS

Goldstein, E. Bruce. (2007). *Sensation and Perception* (7th Ed. with CD ROM and lab manual). CA: Brooks/Cole.

Selected outside readings

GRADING

The standard grading system is based on the following (which total to 105% due to inflation):

Exams (Multiple choice and short answer, over lecture and lab, 20% each / 60% total)
Written assignments (R&D1, 5%; R&D2, 10%, Read Chapter for Fun 2%)
Lab assignments (28%: 14 assignments x 2%)

Exams. Fairness to on-time exams is the priority. Make-up exams are given only in case of documented and very serious illness, and should be taken as soon as possible to avoid “special” versions.

Lecture attendance required,
lab *participation* is required, either virtually or in flesh.

SEMESTER PROJECTS:

1. PERCEPTION-ACTION CYCLE (R&D1, Due Sept. 3, 5% of grade)

Improve some aspect of your life or environment through perception and action. This project will make you more aware of perception and its relation to work and human activity. More details to come.

2. APPLYING SCIENTIFIC KNOWLEDGE (R&D2, Due Dec. 3, 10% of grade)

This project is intended to encourage learning through the application of scientific knowledge. Your goal will be to apply knowledge of perception to some real-world design or design-problem. You will hand in a paper of 4 or more typed pages, plus illustrations. You will chose the design or design-problem, but check with your lab instructor first. You might choose a "design" like a building or expressway you like (or don't like)—in this case analyze why it is good or bad. Or you might choose a "design-problem" such as designing advertisements that capture attention, designing a control panel for Homer Simpson, designing toys for children, or any problem for which principles of Perception prove useful. (More details to come.)

HOW TO DO WELL IN THIS CLASS

Exam grades will have a big impact on your grade. Doing well on exams requires understanding lectures, textbook material, and lab concepts. Lecture material will be tested in part with short answer questions. Lecture questions will be taken from the lecture outlines given at the beginning of each class; use the outlines to help organize your knowledge. Textbook material will be tested with multiple choice questions. Study the text carefully to be ready for the multiple choice questions; most of the questions will be conceptual in nature (rather than mere recognition). Some major lab *concepts* will be tested (but not details).

SALE OF NOTES OR TAPES FROM CLASS IS NOT PERMITTED

TURN OFF #@&*%$ RINGERS!

SCHEDULE FOLLOWS, NOTE *EXAM DATES* INCLUDING *EXAM-WEEK FINAL*

Perception FALL 2008 Schedule

Week (Wed. date)	Lecture	Lab	Reading /papers due
	Introduction: Perception & Brain		
1 (8/27)	Levels of analysis		**Goldstein 1**
	Psychophysics 1	Psychophysical methods	
2 (9/3)	Neuroscience of Vision (Intro to brain and eye)		**2**
	Thinking about neurons' thinking	Neurons & color	R&D 1 due 9/3
3 (9/10)	Theories of Brain and Vision:		**3**
	1. Picture in head, 2. Lone Cowboy	Neural interaction, Lateral inhibition	
4 (9/17)	3. It takes a village		**4**
	4. Pathways and interactions (dorsal and ventral streams)	Selective adaptation	
5 (9/24)	Higher level neural specialization		
	Exam I 9/24	Fun with neurons	
	Constructing Objects of Mind		
6 (10/1)	Psychophysics 2: SDT		**Appendix**
	Decision theory applied	Signal Detection Theory	
7 (10/8)	Perceptual organization		**5**
	Object perception	Fun with Gestalts	
8 (10/15)	Hierarchical models		
	Face perception & beauty	Mean beauty	
9 (10/22)	Identification in context		
	Attention: Selection and enhancement	Attention lab	**6**
10 (10/29)	Attention & binding		
	Integrating features	Visual search	
11 (11/5)	Emotion & attention		
	Exam 2 11/5	Emotion & vision lab	

Week (Wed. date)	Lecture	Lab	Reading /papers due
	Color my world		
12 (11/12)	Color		**7**
		Color: Bottom-up & top-down	
13 (11/19)	Depth, size, & layout		**8**
		Layout lab	/ReadCFun due 11/19
14 (11/26)	Motion		**9**
	Perception & Action	See and steer lab	**10**
15 (12/3)	Perceptual Development Understanding infants		**16** /R&D 2 due 12/3
	EXAM 3 Wednesday 12/10 5:30 – 7:30 PM (several cumulative topics)		

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