Perception

PSY3108A - Fall 2013

Course Outline

Version 1.0 (2013 July 25)

Your Mission

To understand how the brain's neural and mental processes construct perception

Instructor	Levente L. Orbán
Time & Place	**Simard (SMD) 428** (uottawa.ca/maps) Tuesdays 1 - 2:30 pm Thursdays 11:30 am - 1 pm
Labs	**Vanier (VNR) 2025** (uottawa.ca/maps) Fridays 2:30 - 4 pm
Mobile	+1 (613) 299 - 6378
Email	lorban@uottawa.ca
Textbook	Chaudhuri (2011) Fundamentals of Sensory Perception, Oxford
Website	http://llorban.com/perception
Psychology Students' Association	http://socialpsaep.wix.com/psaep
Teaching Assistant	Alicia McMullan

Basic Course Description

This course is designed to provide an introduction to the scientific study of human sensory perception. This is an introductory course that will cover the fundamentals needed to undertake more advanced study in this area. More attention will be paid to vision than to the other senses. By the end of the course, you will:

Academic Goals

- Explore current ideas in perception
- Learn the language of perception
- Develop critical thinking skills through class discussion, lab assignments, research and written analysis
- Realize that sensations don't "just happen" but rather there is a great deal of complex work going on in your nervous system to produce everything you experience.

Concrete Skills and Applied Knowledge

- Signal Detection Theory is a super important concept that permeates every part of our lives and will benefit almost every career path you choose
- Critical thinking, the ability to use rationale thought, logic and evidence to question, challenge and answer questions is something that will stay with you for life
- Writing, your ability to extract key information from something you've read, and integrate it with other things you've read, is a skill almost all employers ask universities to develop in students
- Working in teams, even with occasionally difficult members, is another skill that many employers want to see in fresh graduates

Evaluation

1. Two midterms (35%)
    a. One of them will take place during a lab session, and will consist of a mix of true-false, multiple choice, sketch and label, and math questions. The second one will take place on the last day of classes and will have the same structure.
2. Seven Lab Assignments - 35%
    a. There will be 7 lab assignments, each worth 5%. These are small practical assignments to be carried out at home. Labs are due at the next lab session.
3. Review Paper
    a. Abstract - 5%
        i. Early in the semester, you will select a topic, and write an abstract describing in brief, your topic. Length: up to 500 words
        ii. There is NO deadline, but it must be submitted along with review paper at the latest
    b. Three Article Summaries - 9%
        i. As you prepare to write the review paper, you will come across relevant articles. You will submit a concise half-page summary of 3 articles over the course of the semester.
        ii. No deadlines, but must be submitted along with the review paper at the latest
    c. Final Paper - 16%
        i. You will write a literature review on a topic of your selection. Details below

Method of Submission

Lab assignments and written assignments (abstract, article summaries and final paper) are submitted by email to lorban@uottawa.ca. Written assignments may be submitted in MS Word, iWork Pages, Adobe PDF or LaTeX formats (1% bonus for LaTeX submissions)

Late Policy

Late assignments will lose 10% of the total mark for every day late ("late" begins at midnight of the subsequent day).

Written Research Project (Review Paper)

The research review paper should be 8-9 pages long, double-spaced, and completed in APA style (6th edition). The American Psychological Association Publication Style Manual is available in the library, the Bookstore, and on the Internet. You will be marked strictly on style.

A topic list will be provided; however, you may choose to do your own topic if I approve it first. The purpose of this paper is to describe some area of perception in depth. You can focus on a perceptual abnormality (e.g., what are the causes of visual hallucinations), how a perceptual system works (e.g., how do we see colours), methods for testing perception (e.g., how is smell sensitivity determined), or some perceptual phenomenon (e.g., what is lateral inhibition and why is it important).

The paper should have the following parts: Title Page, Abstract, Introduction, Literature Review, Criticisms, Summary, References, and Graphs. The Reference section should have a minimum of 5 references from scientific journals (ask me if you are not sure what's a scientific journal). You must include at least 3 graphs (e.g., a picture, a diagram, a flow chart, a model of some process).

You have a choice of working on this written project alone or with one other person. If you choose to work with another person, then you will share the mark equally. Everyone should submit a one-page project management sheet to me. Include your name, your topic, and, if you are working with a partner, who is responsible for what task. I also want a schedule for completion. Here is a sample schedule for completion:

Sep 22	Sep 29	Oct 6	Oct 13	Oct 27	Nov 10
Select topic	Complete library research	Finish reading papers	Write first draft	Write final draft	Get paper proofread

There are no deadlines for the submission of your abstract and three articles summaries! You have the freedom to manage these on your own time. Suggested submission dates are posted on the schedule below but you may submit them one-by-one or all at once anytime up to December 5th. Make sure to contact me if you encounter any difficulties.

Class Schedule

Week	Date	Material	Deadlines
!!	September 4	Courses begin	
1	Sep 5, Thursday	Principles of Perceptual Measurement	Chapter 1
	Sep 6, Friday	*No Lab*	
2	Sep 10, Tuesday	Biological Bases of Perception	Chapter 2
	Sep 12, Thursday	The Somatosensory System	Chapter 3
	Sep 13, Friday	*No Lab*	
3	Sep 17, Tuesday	The Chemosensory System	Chapter 4
	Sep 19, Thursday	The Chemosensory System	Chapter 4
	Sep 20, Friday	Lab 1: Psychophysical Methods	
4	Sep 24, Tuesday	The Auditory System I: Sound and the Ear	Chapter 5
	Sep 26, Thursday	The Auditory System I: Sound and the Ear	Chapter 5
	Sep 27, Friday	Lab 2: Somatosensory system	Lab 1 Due
5	Oct 1, Tuesday	The Auditory System II: Hearing Perception	Chapter 6
	Oct 3, Thursday	The Auditory System II: Hearing Perception	Chapter 6
	Oct 4, Friday	Lab 3: Chemosensory system	Lab 2 Due
6	Oct 8, Tuesday	Visual System I: Light, Optics and the Eye	Chapter 8
	Oct 9, Thursday	Visual System I: Light, Optics and the Eye	Chapter 8
	Oct 10, Friday	Lab 4: Sound & Ear	Lab 3 Due
!!	October 13	Study Week Begins	
7	Oct 15, Tuesday	No Classes	*Tip: Submit your abstract*
	Oct 17, Thursday	No Classes	
!!	October 19	Study Week Ends	
8	Oct 22, Tuesday	Visual System II: Retinal processing	Chapter 9
	Oct 24, Thursday	Visual System II: Retinal processing	Chapter 9
	Oct 25, Friday	MIDTERM on Chapters 1, 3, 4, 5, 6	Exam

Week	Date	Material	Deadlines
9	Oct 29, Tuesday	Visual system III: Cortical processing	Chapter 10
	Oct 31, Thursday	Visual system III: Object recognition	Chapter 10
			Tip: Article Summary 1
	Nov 1, Friday	Lab 5: Auditory scene analysis	Lab 4 Due
10	Nov 5, Tuesday	Visual system IV: Color perception	Chapter 11
	Nov 7, Thursday	Visual system IV: Color perception	Chapter 11
	Nov 8, Friday	Lab 6: Light and The Eye	Lab 5 Due
11	Nov 12, Tuesday	Visual system V: Motion perception	Chapter 13
			Tip: Article Summary 2
	Nov 14, Thursday	Visual system V: Eye movements & action	Chapter 13
	Nov 15, Friday	Lab 7: Object perception	Lab 6 Due
!!	November 15	Last day to withdraw from a course	
12	Nov 19, Tuesday	Visual system VI: Depth perception	Chapter 12
	Nov 21, Thursday	Visual system VI: Depth perception	Chapter 12
			Tip: Article Summary 3
	Nov 22, Friday	*No Lab*	Lab 7 Due
13	Nov 26, Tuesday	Catch-up and review	
	Nov 28, Thursday	MIDTERM on Chapters 9, 10, 11, 12, 13	Exam
	Nov 29, Friday	*No Lab*	
14	Dec 3, Tuesday	Review paper Q&A	
	Dec 5, Thursday	*No Class*	Review paper Due by Eamil
!!	December 5-18	Exam period	

Full list of important dates http://www.registrar.uottawa.ca/Default.aspx?tabid=4172#fallwinter

Seven Strategies for Learning Success

- Think for yourself: ask questions, challenge what you learn, criticize assumptions, demand evidence.
- Visualize a goal for yourself; commit to a method for achieving that goal.
- Read assigned readings before coming to class.
- Attend every class: we discuss things not in the readings.
- Organize your day so you are studying manageable amounts in a consistent way.
- Connect current information to prior knowledge. Deep learning begins this way.
- Seek help for problems: talk to me about the course; talk to counseling about personal problems.

Grading System

More information on the grading system: http://web5.uottawa.ca/admingov/regulations.html#r40

How to calculate your GPA

The grade point represents a student's performance in a course and takes the number of credits as well as the numerical value of the letter grade into account. To determine grade points, the number of credits for the course is multiplied by the numerical value of the letter grade.

Letter Grade	GPA	Percentage
A+	10	90 - 100 %
A	9	85 - 89 %
A-	8	80 - 84 %
B+	7	75 - 79 %
B	6	70 - 74 %
C+	5	65 - 69 %
C	4	60 - 64 %
D+	3	55 - 59 %
D	2	50 - 54 %
E	1	40 - 49 %
F	0	0 - 39 %
W		Withdrawal

Sessional grade point average (SGPA)

The sessional grade point average (SPGA) represents a student's overall performance for all courses in a given session. To calculate the sessional grade point average, the sum of all grade points is divided by the sum of all course credits taken by the student during the session.

Cumulative grade point average (CGPA)

The cumulative grade point average represents the student's performance over all courses that make up his or her program of studies. To calculate the cumulative grade point average (CGPA), the sum of all grade points is divided by the sum of all course credits taken by the student and that are part of his or her program of studies. The CGPA is rounded to the first decimal place. Decimals are rounded to the next highest number if the second decimal is 5 or higher and to the next lowest number if the second decimal is 4 or lower.

More information on calculating GPA: http://web5.uottawa.ca/admingov/regulations.html#r40

Academic Fraud

Plagiarism: occurs where a student represents the work or ideas of another person as his or her own.
Cheating: includes plagiarism, occurs where a student or group of students use or attempt to use unauthorized aids, assistance, materials or methods.

The university's policy on academic fraud can and should be read here:
http://web5.uottawa.ca/admingov/regulation_13.html
Briefly, if you are caught cheating, allowing someone to cheat off you, or if you claim another's work as your own (plagiarism), you are subject to penalties ranging from a zero on the assignment to expulsion from the university.

Accessibility

Students who have a disability or functional limitation and who need adaptive measures (changes to the physical setting, arrangements for exams, learning strategies, etc.) to progress or participate fully in university life should contact Access Service right away:

• By visiting our office on the third floor of the Desmarais Building, Room 3172
• By filling out the online registration form
• By calling us phone at 613-562-5976

Access Service designs services and implements measures to break down barriers to learning for students with physical or mental health problems, visual impairments or blindness, hearing impairments or deafness, permanent or temporary disabilities, or learning disabilities.