## **Perception (PSY 438)**

## University of Oregon Spring 2012

8:30-9:50a, Tuesday and Thursday

221 McKenzie Hall 4 credits; CRN: 35564 Prerequisite(s): PSY 303

**Instructor:** Ben Lester

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**Telephone:** 346-5724

**Office hours:** MW 2:00-3:00, or by

appointment



General Course Description: In this course, we will examine the perceptual abilities of the human brain, including vision, hearing, touch, taste and smell. Toward this end, we will include discussions of the methods used by scientists to examine perceptual abilities, the capabilities and limitations of perception, the current knowledge of the underlying neural bases of perception, and the various types of brain damage that may affect perception.

**Required Text:** *Sensation and Perception,* 8<sup>th</sup> *Edition* by E.B. Goldstein is required (a copy is on reserve in the Knight Library). New texts contain an enrollment for the supplemental course info contained on the Blackboard site; students who buy used texts will have to purchase this enrollment separately. Please notify me immediately if you have difficulty obtaining either the text or the supplemental course enrollment from the bookstore.

**Course Website:** The official course website is on Blackboard (<a href="http://blackboard.uoregon.edu">http://blackboard.uoregon.edu</a>). Please notify the instructor if you have difficulty logging into the site. This site will provide supplemental information for the course (course outline, grades, copies of overheads, etc.).

**Optional Websites:** You can also get more perception and neuroscience-related information at the following web sites:

http://www.brainconnection.com

http://www.neuroguide.com

http://faculty.washington.edu/chudler/introb.html

http://www.hhmi.org/senses

If you know of other web sites of interest, please pass them along to the instructor.

**Course Format:** The material in this course will be presented through a combination of assigned reading from the text, class lectures, in-class discussion, and demonstrations. Lecture material and readings will have some overlap, but will not be replications of each other; some lecture material will not be covered in the readings and vice versa. You are expected to do the assigned reading *before* the class period in which it is due. Reading the material before the corresponding lectures will help your performance in two ways. First, discussions of the

material during lecture will be more fruitful if you have at least a general understanding of the material beforehand, helping you to ultimately comprehend and retain the material. Second, questions drawn from the assigned readings will be included on the regularly scheduled quizzes, even if they have not yet been discussed in lecture (see below).

**Grading:** Grading will be based on the combined scores of the quizzes (10%) and exams (midterm #1 25%, midterm #2 30%, final 35%), with a possible 5 points of extra credit added to the final sum. Letter grades will be determined as follows: A (90-100% of total possible points), B (80-89%), C (70-79%), D (60-69%), F (0-60%). However, the instructor reserves the right to relax (but not stiffen) this criterion, depending on the actual distribution of grades.

Quizzes (10% of final grade): Short quizzes will be given in the first 5 minutes of lecture on Tuesdays. Quizzes will contain 3 multiple-choice questions that pertain to the recently presented lecture material and the readings from the text. Questions will occasionally be drawn from readings that have been assigned but have not yet been discussed in lecture (even those due the day of the quiz); however, these questions will be of a more general nature and should be easily answered if you have read the material.

Of the 8 quizzes, the quizzes with the two lowest scores will be dropped, with the average score of the remaining six yielding 10% of the final grade. No make-up quizzes will be offered; if you miss a quiz, that grade will be one that will be dropped.

Exams: Midterm #1 (25%), Midterm #2 (30%), & Final (35%): The midterm and final exams will be part multiple choice, part fill-in-the-blank and part short answer/short essay. The final exam will contain questions drawn from the entire course, but with a greater focus on material covered after Midterm #2. No make-up exams will be given without evidence of a valid excuse, and the final cannot be taken earlier or later than the time listed in the University final exam schedule – if you know in advance that you cannot take all exams on the appointed dates (see the course schedule below), do not take this course! If unforeseen circumstances during the term prevent you from taking an exam, notify the instructor immediately.

## Extra Credit – up to 5 points added to final grade: Extra credit can be earned in one of two ways:

- 1) Students can prepare for the class a 5–10 minute demonstration of a psychological phenomenon that fits within the topics of discussion in the course. These demos can be either high-tech (e.g., computer programs, edited videos, etc.) or decidedly low-tech (e.g., using only navel lint, an ice cube and duct tape), and they must be accompanied by an informal one-page written description of the phenomenon and its relation to the information presented in the lecture and reading materials.
- 2) Students can prepare a 5–10 minute presentation on a recent news item (i.e., one reported during the term) related to the topics discussed in the course. For optimal success in this type of presentation, you must do more than simply relate the information that was presented in the newspaper article or news program this may involve a web search to find pictures/video to accompany your presentation, a dig in the scientific literature to find relevant details and hard data, etc. These presentations must also be accompanied by an informal one-page written description of the phenomenon and its relation to the information presented in the lecture and reading materials.

The value of extra credit will range between 0 and 5 points to be added to your final grade, determined according to four criteria as assessed by the instructor: 1) the presentation's effectiveness at demonstrating the desired phenomenon or news item; 2) the creativity of the presentation; 3) the quality of the one-page description; and 4) the amount of work that was required in creating the presentation (e.g., writing a computer program to demonstrate motion parallax will be worth much more than simply reading a newspaper article on synesthesia). Two or more students can work as a team to devise a presentation, with the total amount of extra credit evenly divided between the team members. Those wishing to create a presentation should confer with the instructor before beginning – if two or more students have the same idea for a presentation, the one that informs me first (in person, by phone, or by email) will have exclusive rights to the idea. The instructor reserves the right to keep copies of the presentation for use in future courses.

**Students with Disabilities:** If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with the instructor as soon as possible. Also, please request that the Counselor for Students with Disabilities (Hillary Gerdes, hgerdes@oregon.uoregon.edu, tel. 346-3211, TTY 346-1083) send a letter verifying your disability.

**Students for whom English is a Second Language:** If you are a non-native English speaker and think you may have trouble in this course due of language difficulties, please see the instructor as soon as possible to make special arrangements.

**Academic Honesty:** All work submitted in this course must be your own. For the consequences of academic dishonesty, refer to the Schedule of Classes published quarterly. Violations will be taken seriously and are noted on student disciplinary records. If you are in doubt regarding any aspect of these issues as they pertain to this course, please consult with the instructor before you complete any relevant requirements of the course. (For more information, see the UO web site regarding academic honesty at: <a href="http://studentlife.uoregon.edu/programs/student\_judi\_affairs/conduct-code.htm">http://studentlife.uoregon.edu/programs/student\_judi\_affairs/conduct-code.htm</a>).

Course Outline: This is only a working draft of the course outline; it will be revised as the term progresses. Additional readings may be added. Dates on which particular topics are to be presented in lecture are subject to change, as are reading assignment due dates; however, I will not change the dates of quizzes, exams or term paper deadlines unless absolutely necessary. The official updated version of the outline will reside on the Blackboard web site. Updated print versions can also be obtained from the instructor during normal office hours.

| Week | <u>Date</u>             | Topic  | Readings   | Exams/Quizzes/Assignments |
|------|-------------------------|--|------------|---------------------------|
| 1    | April 3                 | Introduction to perception                                       | Chapter 1  | Quiz #1                   |
|      | April 5                 | Physiology of perception   | Chapter 2  |                           |
| 2    | April 10                | Low-level vision   | Chapter 3  | Quiz #2                   |
|      | April 12                |  | Appendix B |                           |
| 3    | April 17                | High-level vision  | Chapter 4  | Quiz #3                   |
|      | April 19                |  |            |                           |
| 4    | April 24                | Object perception  | Chapter 5  |                           |
|      | April 26                | Midterm Exam #1 (Chs. 1–4, App.                                  |            | Midterm Exam #1           |
|      |                         | <i>B</i> )   |            |                           |
| 5    | May 1                   | Visual attention   | Chapter 6  | Quiz #4                   |
|      | May 3                   | Motion   | Chapter 8  |                           |
| 6    | May 8                   | Depth & size   | Chapter 10 | Quiz #5                   |
|      | May 10                  | Color vision   | Chapter 9  |                           |
| 7    | May 15                  | NO CLASS   |            |                           |
|      | May 17                  | Midterm Exam #2 (Chs. 5, 6, 8, & 9)                              |            | Midterm Exam #2           |
| 8    | May 22                  | Auditory system  | Chapter 11 | Quiz #6                   |
|      | May 24                  | Auditory perception  | Chapter 12 |                           |
| 9    | May 29                  |  |            | Quiz #7                   |
|      | May 31                  | Cutaneous senses (somesthesis)                                   | Chapter 14 |                           |
| 10   | June 5                  | Chemical senses  | Chapter 15 | Quiz #8                   |
|      | June 7                  | Course wrap-up & review  |            |                           |
| 11   | Thur., June 14, 8:00 am | Final Exam (Cumulative, but will focus on Ch. 11, 12, 14 and 15) |            | Final Exam                |