

**PSY 438/538 Perception**

CRN:15310 (PSY 438, 4 credits)

CRN:15328 (PSY 538, 4 credits)

MW 8:30-9:50am in 101 JAQ

**Instructor:** Scott A. Reed, Ph.D.**Office:** 429 Straub**Phone:** 541-346-5724**E-mail:** sreed@uoregon.edu**Office Hours:** M 10:30-12:30pm**Graduate Teaching Fellow:** Arthur Juliani**Office Hours/Location:** W 10:00-12:00 in 247 Lewis Integrative Science Building**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. Perception involves the transformation of incoming signals into useful information or "representations" of the world. While perception seems automatic and effortless, it is really a complicated constructive process. The goal of the course is to understand some of the processes involved in this construction. The modern day study of perception is an interdisciplinary pursuit that includes studies of behavior, the brain, and computers. This course deals with all three types of studies with an emphasis on the first two. It is my hope that by the end of this course, you will have a new appreciation for how you experience the world on a daily basis.

**Course Format**

The material in this course will be presented through a combination of assigned reading from the text and additional handouts, 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. Canvas will be used in this course as an online resource for the syllabus, PowerPoint lecture slides, study guides, additional/supplemental readings, and weblinks. It is recommended that you frequently check Canvas in order to stay up to date on the course materials that are posted from week to week.

### Course Pre-Requisite

Successful completion of PSY 303 (Research Methods) is a pre-requisite for this course. Proficiency in research methods is particularly important as many of the concepts related to perception that we will review in the course are based on findings from experimental research.

### Textbook

**Required Book:** Sensation and Perception, 9<sup>th</sup> Edition by E.B. Goldstein (2014). A copy of the textbook will be placed on reserve at the library.

### Course Points and Grading

Quizzes: 30 points  
 Thought Pieces: 20 points  
 Midterm Exam 1: 75 points  
 Midterm Exam 2: 75 points  
 Final Exam: 100 points  
 Term Paper: 50 points

Total Points: 350

Final grades will be assigned based on your total percentage points in the course, as listed below. Percentage points are calculated based on **your final point total out of 350 points possible**. Note that an extra assignment is available to complete (see below). All written work in this class (thought pieces and short answer exam questions) will be graded based on accurate demonstration of knowledge, critical thinking skills, and cohesiveness of writing.

| GRADE | PERCENTAGE |  | GRADE | PERCENTAGE      |
|-------|------------|--|-------|-----------------|
| A+    | 99-100%    |  | C     | 72-77.9%        |
| A     | 92-98.9%   |  | C-    | 70-71.9%        |
| A-    | 90-91.9%   |  | D+    | 68-69.9%        |
| B+    | 88-89.9%   |  | D     | 62-67.9%        |
| B     | 82-87.9%   |  | D-    | 60-61.9%        |
| B-    | 80-81.9%   |  | F     | 59.9% and Below |
| C+    | 78-79.9%   |  |       |                 |

### Coursework

**Quizzes (30 points):** There will be 6 quizzes throughout the term. Each quiz is worth 6 points and will consist of 3 multiple-choice questions that will be based on the readings and lecture material for that week. Note that if you are absent, quizzes cannot be made up. However, I do drop one of the quizzes so that only 5 quizzes count toward your final grade. Therefore, if you miss a quiz, it will be the quiz that is dropped.

**Thought Pieces (20 points):** Five times throughout the term (see course calendar for specific dates), you will be asked to write an in-class reaction to a particular question posed during class. You will be given 5 to 10 minutes to write out your response and no preparation is required. Each thought piece will be worth 5 points. Thought pieces cannot be made up. However, I do drop one of the thought pieces so that only 4 count toward your final grade. Therefore, if you miss a thought piece, that will be the one that is dropped.

**Exams (250 points):** There will be three exams throughout the term: two midterm exams and a final exam. Each exam will cover the textbook chapters listed in the course calendar in addition to the lecture material we covered in class. The exams will consist of multiple-choice, fill-in-the-blank, and short answer questions. Each midterm exam is worth 75 points each and the final exam will be worth 100 points. The final exam will be comprehensive, but with emphasis on the material covered since the previous (i.e., second) midterm. Study guides will be handed out in class one week prior to the exam date.

**Term Paper (50 points):** The purpose of this paper is to examine in greater detail a topic related to Perception that you are personally interested in. The topic can be on any sensory modality (e.g., vision, audition, somatosensation, etc.), but should focus on either the behavioral, biological, or clinical characteristics of perception. For instance, potential topics could be color blindness, synesthesia, visual pathways in the brain, a specific type of agnosia (e.g., visual agnosia, prosopagnosia, etc.), how perception is affected in a clinical population (e.g., schizophrenia, autism, etc.), sound localization, phantom limb pain, etc. Note that you are not limited to the list of topics – any topic discussed in class or in the textbook will also be fine, though if you're unsure whether a topic is appropriate, feel free to run it by your instructor for approval. Once you select a topic that you are interested in, you will then search for three journal articles on the topic, which should be peer-reviewed articles from academic journals. Then, *based on the articles found*, your paper should include 1) an introduction to the topic, 2) a review of the literature on your topic (i.e., this should be the bulk of the paper), and 3) a summary/synthesis/conclusion of these findings, and why they are interesting and/or relevant. The paper should be 4-6 pages (double-spaced, 1 inch margins, 12 point font) written in APA format (i.e., title page, citations, and references should be properly formatted. However, you are not required to have separate sections for the introduction, methods, results, etc., and it is therefore acceptable to have the text as one flowing document). Term papers will be due at the beginning of class (see course calendar for due date) and should be submitted as a hard copy. Late papers will be accepted but penalties will apply (see the section below for additional details). A copy of these guidelines, in addition to a grading rubric (i.e., point breakdown) for the criterion, will be handed out in class, and posted online.

**Extra Credit:** You can earn up to 3.5 points (i.e., 1 percentage point towards your final grade) by writing a short response paper on a visual illusion. This will entail selecting a visual illusion (several examples will be discussed in class, and other examples can be found in the textbook) and finding one journal article (peer-reviewed) that examines either the behavioral or neurophysiological characteristics and/or basis for the illusion. You can then write a short response paper (1 page, 1-inch margins, double-spaced) that 1) introduces/describes the illusion, 2) summarizes the article, and 3) describes what you found most interesting about the paper/illusion. Extra credit assignments can be emailed directly to the instructor, or turned in during class, any time before the end of the term (Friday of finals week).

**PSY 538 (Graduate Credit):** In addition to the course work above, students taking the course for graduate credit will also be required to prepare and deliver a 5-10 minute class presentation on a topic within Perception, or on a psychological phenomenon that fits within the topics of discussion in the course. For optimal success, students should do more than just relate the information in a conceptual way; successful presentations should also include a demonstration, video, data, or interactive class activity. The presentation will be worth 20 points that will count toward your final grade (i.e., for graduate students, total course points are therefore based on 370 total points possible), and will be graded on the following three criteria as assessed by the instructor: 1) the presentation's effectiveness, 2) the creativity of the presentation; and 3) the amount of work that was required in creating the presentation. Once the presentation is prepared, please contact the instructor regarding scheduling a time in class to deliver the presentation.

### Course Expectations

**Academic Honesty:** Group discussion outside of class is encouraged. However, all work submitted in this course must be your own and produced exclusively for this course. Copying or paraphrasing information from any source, print or electronic, without citation, is plagiarism. The use of sources must therefore be properly acknowledged and documented. The consequences of academic dishonesty will be taken seriously and will entail a mandatory report to the Office of Student Conduct. If you are in doubt regarding any aspect of these issues, please come and speak with me.

**Academic Responsibility:** This class will be guided by University Policies that entails a standard of responsibility, honesty, and integrity for the instructor, your classmates, and the work that you do. This course has also been designed to comply with the psychology department's guidelines for teaching and learning. Please review these guidelines at <http://psychweb.uoregon.edu/guidelines/index.htm>

**Due Dates and Late policies:** Term papers turned in after the deadline will be marked down 10% for each day late, and will not be accepted after 5:00pm on Friday of finals week. Thought pieces are completed in class, and therefore due dates/late penalties are not applicable.

### Student Accommodations

**Accessible Education Center:** If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with me. Also, please request that the AEC (541-346-1155, [disabsrv@uoregon.edu](mailto:disabsrv@uoregon.edu)) send me a letter verifying your disability.

**Students for Whom English is Not Their Native Language:** Foreign language dictionaries are permitted during exams. Exams will be designed to complete within an hour and twenty minute period; therefore, it is unlikely that you will need additional time. However, if you find that you do need additional time to complete the exam, please make arrangements with me ahead of time.

**Academic Learning Services:** If you have difficulty with the course materials at any time, you are encouraged to contact the instructor for assistance. In addition, the resources of the Academic Learning Services (<http://als.uoregon.edu/services/services.html>) can be invaluable to students that require assistance in, for example, perfecting good study habits or honing their writing skills.

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| <b>Course Calendar</b> |
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| Week        | Date                      | Lecture Topic   | Chapter Readings | Exams, Quizzes, & Thought Pieces |
|-------------|---------------------------|---|------------------|----------------------------------|
| 1           | Mon., 9/28                | Course Overview   |                  | Quiz 1 (take-home)               |
|             | Wed., 9/30                | Introduction to Perception  | Chapter 1        |                                  |
| 2           | Mon., 10/5                | The Physiology of Perception  | Chapter 2        | Thought Piece 1                  |
|             | Wed., 10/7                | Neural Processing and Coding  | Chapter 3        | Quiz 2                           |
| 3           | Mon., 10/12               | Cortical Organization   | Chapter 4        | Thought Piece 2                  |
|             | Wed., 10/14               | Cortical Organization; Review Session                                   | Chapter 4        | Quiz 3                           |
| 4           | Mon., 10/19               | <b>Midterm Exam 1</b><br>(Chapters 1, 2, 3, & 4)                        |                  | Exam 1                           |
|             | Wed., 10/21               | Perceiving Objects and Scenes   | Chapter 5        |                                  |
| 5           | Mon., 10/26               | Perceiving Motion   | Chapter 8        |                                  |
|             | Wed., 10/28               | Perceiving Color  | Chapter 9        | Quiz 4                           |
| 6           | Mon., 11/2                | Perceiving Color  | Chapter 9        |                                  |
|             | Wed., 11/4                | Perceiving Depth and Size   | Chapter 10       | Quiz 5                           |
| 7           | Mon., 11/9                | Perceiving Depth and Size;<br>Review Session                            | Chapter 10       | Thought Piece 3                  |
|             | Wed., 11/11               | <b>Midterm Exam 2</b><br>(Chapters 5, 8, 9, & 10)                       |                  | Exam 2                           |
| 8           | Mon., 11/16               | Visual Attention  | Chapter 6        | Thought Piece 4                  |
|             | Wed., 11/18               | Sound Perception  | Chapter 11       |                                  |
| 9           | Mon., 11/23               | Auditory Localization   | Chapter 12       | Thought Piece 5                  |
|             | Wed., 11/25               | The Cutaneous Senses  | Chapter 14       | Term Paper Due                   |
| 10          | Mon., 11/30               | The Chemical Senses   | Chapter 15       | Quiz 6                           |
|             | Wed., 12/2                | Review Session  |                  |                                  |
| Finals Week | Tues., 12/8<br>At 10:15am | <b>Final Exam</b><br>(Chapters 6, 11, 12, 14, & 15,<br>& Comprehensive) |                  | Final Exam                       |