

PSY 3680, Sensation & Perception, 3 credits MWF 1:00-1:50 pm



Catalog Description

Overview of the methods and principles of sensation and perception as analyzed through the study of the major senses of vision, hearing, touch, taste, and smell.

Course Overview

We often do not think about the incredibly complex task that our senses have in detecting and encoding information from the environment, or the way in which we are able to organize this information into meaningful representations of the world. By the end of this course, you will have a much deeper understanding and appreciation for this ability.

This course will begin with a brief history and overview of methods related to the study of sensation and perception, followed by an in-depth study of vision for the first half of the course. Next, we will analyze the role of attention in vision, followed by the examination of the physiology and perceptual experiences related to hearing, touch, smell, and taste.

Instructor:	Jeffrey R. Stowell
Office Room:	1055 Physical Sciences
Office Phone:	217-581-2279
E-mail:	jrstowell@eiu.edu
Office Hours:	MW 9-10:30 am, T 11:00-Noon Schedule an appointment You may contact me through phone, email, or chat/video using MS Teams (all EIU students have access to this). I will respond to emails within 2 business days.

Teaching Philosophy

"The mind is not a vessel to be filled, but a fire to be kindled" --Plutarch

Course Materials

Wolfe, J. M., Kluender, K. R., Levi, D. M., et al. (2021). *Sensation & Perception (6th ed.)*. Sunderland, MA: Sinauer Associates, Inc.

Download the "Brightspace Pulse" app from the [Google Play](#) or [Apple store](#) to access the course materials from your mobile device.

Course Objectives

1. Evaluate major concepts, theories, and research in sensation and perception.
2. Apply innovative, integrative, and critical thinking skills to interpret psychological phenomena related to perception.
3. Interact effectively, sensitively, and ethically with people from diverse backgrounds and demonstrate understanding of the sociocultural contexts that influence individual



differences in sensation and perception.

4. Apply knowledge of sensation and perception to real-world issues.
5. Write critically and effectively by evaluating evidence, issues, ideas, and problems from multiple perspectives.
6. Interpret how the anatomy/physiology of each of the major senses influences our perceptual experiences.
7. Develop a greater appreciation for your senses!

Course Requirements and Grading

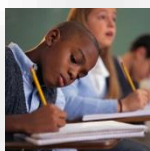
Course Requirement	Points	% of Total
Quizzes and Final Exam		
Cumulative chapter quizzes	250	50%
Cumulative final exam	50	10%
Assignments and Activities		
Journal article critiques (2 x 40 points)	80	16%
Sensory deprivation report	40	8%
Online exercises (5 x 10 points = 50 points)	50	10%
Class Participation	30	6%
Total	500	100%



Grading scale: A (89%), B (79%), C (69%), D (59%), F (<59%)

Chapter Quizzes (Learning Objectives 1, 2, 4, and 6)

- You **may** use your book, notes, and most Internet sources on the quizzes.
- You **may not**:
 - Utilize websites that have posted previous or current quiz questions or that offer artificial intelligence responses.
 - Offer help to others or receive help from others on the quiz.
 - Download, take photos, screen capture, or share quiz questions with others.
- Quizzes are designed to assess your fulfillment of the course objectives. Questions on the chapter quizzes are multiple choice and short answer from material covered in lecture and the textbook. The questions are based on the application of the information you have learned and will test your critical thinking and analytical skills.
- Quiz questions are randomly selected from a set of questions. Thus, you may end up with 2 questions that test similar concepts, and you will probably not have the exact same questions as another student. Across all the quizzes, the average difficulty for everyone in the class will be very similar.
- As part of a cumulative testing strategy, each quiz contains two additional questions from each of the prior quizzes. As such, each subsequent quiz will have more questions (and more time to complete them). See further explanation in D2L under “Getting Started.”



- You will have two attempts at each quiz. If you take the quiz twice, I take the higher score of your two attempts (of the multiple-choice questions).
 - The short answer questions are the same for each attempt so I will only accept your answers for the first attempt on the short answer questions. You do not need to answer them on your second attempt--I'll just award the same number of points from your first attempt.
 - If you are happy with your 1st attempt score, it is not necessary to take it a second time. It is likely that you will get some of the same questions on both attempts, so it is helpful to view your quiz results to see which ones you got wrong.
 - I recommend taking your first attempt after you have read the chapter and feel like you have a pretty good grasp of the information. Then, after you find out which questions you missed, study those topics until you have mastered them and then retake the quiz. It is up to you how to best use the opportunity. Research on testing suggests that by simply asking students to retrieve information (i.e., testing), they are more likely to remember it.
- After the quiz has been submitted, you can immediately view only the questions that you missed. Because the short answer questions cannot be graded automatically, they show up as "missed" points until I grade them.
- The quizzes are timed and the timer begins once you open the quiz. Please save each answer as you go in case something happens to your internet connection. You have 2 minutes for every point on the test. Although you can use your notes and books on the quizzes, you won't have time to look up every question. If you find yourself running out of time at the end on the short-answer question, just take a little more time to finish it up. It will still save your answers. Keep in mind that there may be some students who would use all the time no matter how much is granted and it's merciful for them to have an end to the quiz.
- If you have problems while taking a quiz, please complete the quiz at the next possible time. You may have a warning that your time has expired, but your answers will be saved. Then, send me an e-mail explaining why your time went over. D2L records all the quiz times.
- Quiz deadlines will be adjusted for students with University-approved absences.

Final Exam

Similar to the quizzes, the final exam is comprehensive and will contain questions selected from prior chapters.

Ed.ted Assignments (Learning Objectives 2 and 4)

There are five online exercises at ed.ted.com, linked within their respective content modules in D2L. Please make sure you access them through these links in D2L and not simply a search on the ed.ted.com web site—there are multiple versions of the same lessons and only my customized lesson will earn you points. You will need to register on the <https://ed.ted.com> web site and login **prior** to completing the linked online exercise. If you are not logged in prior to completing the online exercise, I will not have access to your submission.

Each of the ed.ted activities requires you to view a short video (3-5 minutes), then complete up to 5 multiple-choice/short answer questions. To access the ed.ted quiz, click on “Think” to the right of the video. Save each answer before moving to the next questions. Your performance on your **FIRST** attempt of the online quiz will count toward your grade. However, you can watch the video as many times as you want before you take the quiz.

Journal Article Critiques (Learning Objectives 1, 2, 5)

View the complete instructions in D2L.

Sensory Deprivation Paper (Learning Objective 7)

Your assignment is to deprive yourself of vision, hearing, or both for a minimum of 4 consecutive hours during part of the day that you would normally be active. See instructions in D2L for further details.

Class Participation

Using mobile devices for classroom polling can promote student participation and engagement. The benefits of using classroom polling include:

1. All students can respond to questions posed in class.
2. Students give more honest answers of what they are thinking and learning because their responses are anonymous to other students.
3. Students and instructors get immediate feedback about learning.
4. It works well with peer instruction, which has also been shown to increase student learning.

A portion of your grade will depend on audience participation using the polling software. If you participate in at least 70% of the class periods that I record participation, you will receive the full participation points. Below that, your participation points will be reduced accordingly. Tracking individual participant responses is done for the purposes of grading, instructional research, and course development.

Technology Policy

- Cell phones should not be used during class, except with the instructor's permission. Texting or talking on cell phones disrupts the learning environment, especially for the person doing it :)
- Laptops may be used in class only for taking notes.



Reading Schedule, Important Dates

Please read the chapters in the textbook before class to enhance understanding of demonstrations, examples, and group discussions. Please note this schedule is subject to change.



Week	Date	Chapter Topic
1	21-Aug	Introduction
	23-Aug	1. Dawn of Psychophysics
	25-Aug	1. Signal Detection Theory
2		1. Brain neuroimaging
	28-Aug	2. Light Physics
		2. Optics, Eye anatomy
	30-Aug	Online Activity Due: How do Glasses Help us See?
	1-Sep	2. Retina, Dark adaptation
3	4-Sep	Labor Day
	6-Sep	2. Phototransduction, Receptive Fields
	8-Sep	2. Receptive fields, Sensitivity vs. Resolution
4	11-Sep	3. Spatial Vision (pages 67-81)
	13-Sep	4. Extrastriate pathways
	15-Sep	4. Gestalt Principles of Grouping, Object Recognition
5	18-Sep	4. Object Recognition
	20-Sep	5. Trichromacy
	22-Sep	5. Trichromacy
6	25-Sep	5. Trichromacy/Opponent Process
		5. Opponent Process
	27-Sep	Journal Critique #1 due
		5. Color Vision Deficiency, Color Constancy
	29-Sep	Online Activity Due: What Color is Tuesday? Exploring Synesthesia
7	2-Oct	6. Monocular Depth Cues
		6. Monocular Depth Cues
	4-Oct	Online Activity Due: Explanations of the Moon Illusion
	6-Oct	6. Binocular Depth Cues
8	9-Oct	6. Development of depth
	11-Oct	Midterm review
	13-Oct	7. Types of Attention
9	16-Oct	7. Visual Searches
	18-Oct	7. Physiology of Attention and Disorders
	20-Oct	Fall Break
10		10. Hearing in the environment (Sound Localization pages 306-315)
	23-Oct	Online Activity Due: The Distracted Mind
		9. Hearing: Properties of Sound
	25-Oct	Journal Critique #2 due
	27-Oct	9. Hearing: Anatomy of the ear
11	30-Oct	9. Hearing: Sensory Transduction
	1-Nov	9. Hearing: Frequency and Amplitude
		9. Hearing Loss
	3-Nov	Online Activity Due: The Science of Hearing
12	6-Nov	13. Touch Receptors

	8-Nov	13. Touch Pathways
	10-Nov	13. Touch Pain, Touch Acuity & Localization
13	13-Nov	13. Touch Pain, Touch Acuity & Localization
	15-Nov	13. Psychophysical Aspects of Touch
	17-Nov	14. Olfaction
XX	20-Nov	Thanksgiving Break
	22-Nov	Thanksgiving Break
	24-Nov	Thanksgiving Break
14	27-Nov	14. Olfaction
		14. Olfaction
	29-Nov	Sensory Deprivation Paper due
	1-Dec	15. Taste
15	4-Dec	15. Taste
	6-Dec	15. Taste
	8-Dec	Final Review, Last lecture, and Extra credit Due
16	12-Dec	12:30-2:30 Final Exam

View the [university's academic calendar](#) for add, drop, and withdrawal deadlines.

Late Work Policy

Late work submitted after the deadline may be penalized by up to 20% of the points for the assignment. Requests for extensions of deadlines may be made for university excused absences or for extenuating circumstances.

Individuals with Disabilities

If you are a student with a documented disability in need of accommodations to fully participate in this class, please contact the Office of Accessibility and Accommodations (OAA). All accommodations must be approved through OAA. Please stop by McAfee Gym, Room 1210, or call 217-581-6583 to make an appointment.

Academic Integrity

Students are expected to maintain principles of academic integrity and conduct as defined in EIU's Code of Conduct (<http://www.eiu.edu/judicial/studentconductcode.php>). All assignments and quizzes must be your own work. Use of AI-generating software is not permitted. Written assignments and quiz answers may be checked for AI-generated content. Violations will be reported to the Office of Student Standards.

Diversity Statement

Each of us comes from a unique cultural background influenced in many ways by the people with whom we interact and the surrounding structures of society. Diversity provides the opportunity to learn from one another and deepen our understanding and empathy for one another. Differing viewpoints in this course are acceptable, but we should be inclusive by respecting, supporting, and valuing people who possess ideas different from our own. Students in this course should feel comfortable sharing their personal views without fear of reprisal. Discriminatory behaviors based on an individual's race, color, religion, sex, gender identity, sexual orientation, national origin, disability, age, marital status, political affiliation or other

personal characteristics are not acceptable and may be referred to the Office of Civil Rights and Diversity.

The Student Success Center

Students who are having difficulty achieving their academic goals are encouraged to contact the Student Success Center (www.eiu.edu/~success) for assistance with time management, test taking, note taking, avoiding procrastination, setting goals, and other skills to support academic achievement. The Student Success Center provides individualized consultations. To make an appointment, call 217-581-6696, or go to McAfee Gym, Room 1301.

Early Alert System

Eastern maintains an Early Alert System (EAS) to help students know when they are not performing up to academic standards. Alerts may be given for poor attendance, not turning work in on time, or doing poorly on an assignment or test. EAS staff will contact you to help you find resources to help you be a successful student. Resources may include time management, study skills, test-taking, finding tutors, or other resources related to academic issues. I will use the EAS if I believe you could benefit from talking to a success coach about these issues.