



Psychology 231: Sensation and Perception

Location
Loras College

HENN 270
TTH 2:00 – 3:20
Spring 2017

Psychology Program

Instructor: Jake Kurczek, PhD
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Office Hours: By appointment

Textbook: Wolfe, J. (2015). *Sensation and Perception* (4th Ed.). Sunderland, MA: Sinauer Associates Inc.

Class Website: You will be able to find PDFs of the lectures and discussions posted on eLearn

Course Goals and Overview

In this course, you will:

- Gain factual knowledge that includes brain anatomy, neuron function, neurotransmitters, and hormones
- Apply the course material through exploration of sheep brain anatomy
- Explore current topics in neuroscience through critical review of the primary literature
- Develop collaborative scientific skills through laboratory research projects
- Gain behavioral testing experience through laboratory experiments with live rodent subjects

Learning Outcomes

- Students will be able to identify biological/neural structures and their associated functions
- Students will demonstrate critical thinking about the role of the brain in everyday functioning
- Students will gain an understanding of the depth and breadth of the field of neuroscience
- Students will enhance their ability to communicate scientific information through discussions and written assignments

Course Requirements/Policies/Assignment Details

Assignments

This course is based on an interactive lecture format where students will be expected to contribute to class discussions, brainstorming sessions, and small group work. Assessment of student learning will be determined as follows (see descriptions below):

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Quizzes	200
Portfolio	160
Research Data Blitz	50
Kid Poster	40
Participation	150
Discussions	
Debates	
Peer Review	
TOTAL	600

- Quizzes

Quizzes will review material for the lecture/reading of the day. These can take the form of fill-in-the-blank, multiple choice, short answer and essay.

- Twitter Discussions

Twitter is a microblogging platform that limits you to 140 characters per message, or tweet. This network allows for both synchronous and asynchronous discussion. Importantly, Twitter takes us outside of the course and college boundaries and puts us in contact with the larger world. Others who see the topic announcement can join us and participate as they wish. Twitter may also help us get to know each other better through our social networking profiles and conversations.

In each Twitter Discussion, students will be assigned different roles:

Question Master

Raise questions on the topic and reading. This will require preparation before class

Answers Ace

Answer questions from QM

Multimedia Czar

Bring in relevant, pictures, GIFs, videos and polls

Synthesizer

Pull together themes and commonalities across questions and discussions. Raise Takeaways. If it's early and there aren't themes yet, your job is to reach out to others on Twitter to join the discussion.

- Debates

We will engage in two debates across the semester (3/7 – Pareidolia and 5/2 – Pheromones). In each debate we will look at an area where there is controversy on a particular sensation and perception topic. You will sign-up to take a leading role in 1 of the 2 debates. You may [sign-up to argue for either the affirmative](#) (yes, this phenomenon exists and is important) or the negative (no, this phenomenon is limited and not useful). There will be approximately 6/7 available slots for each of the positions on each of the debate days. The rest of the class will serve as judges. I'll ask that each person arguing the affirmative and negative for the day that they're signed up for find an article. Each group will choose 3 students to each give a 2-3 minute summary/argument. As a group, think about how you are forming your argument. What main points are you trying to make? Have you thought about the other side and what are you doing to preemptively argue

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against that? During [each debate](#), we will switch back and forth between the 5 affirmative and negative position summary/arguments. After those presentations, teams will have ~10 minutes to formulate a rebuttal and then each side will be allowed ~5 minutes to voice their rebuttal to the judges. Then we will open the forum to questions from the judges before spending the last few minutes seeing where we fall on the issue. Bring your computers and take notes on a downloaded copy of this [form](#).

- Portfolio

The major project for this course is a portfolio studying a particular concept in sensation and perception. Your portfolio should contain 2 major artifacts and 2 minor artifacts (one of the minor artifacts must be a Kid Poster). Each time you turn something in, it should be in APA style (if appropriate). You will be offered the opportunity to revise one major and one minor artifact. Each major artifact is 1/3 of the portfolio grade and each minor artifact is 1/5 of the portfolio grade.

- Kid Poster

A one-slide powerpoint poster on the sensation/perception topic from your paper which should be designed for elementary/middle school aged children. The poster should introduce kids to the sensation/perception topic in a fun and entertaining way. Think about how you can communicate a complicated topic in a less complicated way. There should also be an activity that the kids can try associated with the poster.

- Research Data Blitz

Students will be asked to give a 5-6 minute data blitz presentation on their paper at the end of the semester. The presentation will give students an opportunity to summarize their findings for an academic audience. With the short time limit, you'll likely have just one slide for background, 2 slides for methods and 1 slide for the implications of your study. We'll actually be doing this about 6 people at a time, so you'll have the opportunity to share yours 5 or 6 times.

Schedule*

Day	Topic	Reading	Assignment
1/31	Course Intro		Course Intro
2/2	Sensation/Perception	CH 1	Syllabus Signed
2/7	Eye Anatomy / Spatial Vision	CH 2	
2/9	Eye Anatomy / Neural Processing/Retina	CH 2	Portfolio Plan
2/14	What is it like to be a bat? Qualia		Discussion
2/16	Perception of Color	CH 5	
2/21	Work Day		
2/23	Perception of Color	CH 5	Minor Artifact

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2/28	Perception of Objects	CH 4	
3/2	Perception of Space	CH 3	
3/7	Perception of Motion	CH 8	
3/9	Pareidolia		Debate Kid Poster / Activity
3/14	Attention	CH 7	
3/16	Properties of Sound / Ear Anatomy	CH 9	
3/21	Hearing in the Environment	CH 10	
3/23	Music and Speech Perception	CH 11	Major Artifact
3/28	Human Sonar		Discussion
3/30	Vestibular System	CH 12	
4/4	Touch and Pain	CH 13	
4/6	Peer Review		
4/10-4/17	No Class	Easter Break	
4/18	Touch and Pain	CH 13	Revisions
4/20	Extra Sensory Perception (Psi)		Discussion
4/25	Synesthesia		Discussion
4/27	Olfaction	CH 14	
5/2	Pheromones		Debate
5/4	Taste	CH 15	
5/9	Presentations – Data Blitz		Data Blitz presentations due 5/8 – 9:00PM
5/11	Presentations – Data Blitz		
FINALS			Final Portfolio

*Instructor reserves the right to modify this syllabus and schedule when necessary. Modifications will be made following notification via e-mail, eLearn, and/or in class announcement

Note: The Neuroscience Club is pairing with Psi Chi to host *Brain Games: Neuronal Fun for All Ages!* on March 14th during common time (11AM-12:15PM) in the ACC Ballrooms. You are invited to either help host the event or to attend. Please let me know if you would like to help out or plan to attend.