



SENSATION & PERCEPTION

PSYC220, F18

CLASS INFO

PSYC220, Fall 2018
Olin 102
MW 11:10-12:20, F 12-1

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COURSE WEBSITE

This syllabus and other important course materials including readings and assignment details are available on moodle. Powerpoint slides, videos, handouts, and other material will be posted on moodle after the lecture in which they are presented.

OFFICE HOURS

You are most cordially invited to come and chat with me by making an appointment at: juliastrand.youcanbook.me! This is a great way to get your questions answered, tell me about things you've noticed in the world that relate to class, or share your insights about perceptual phenomena. Times listed in green indicate available times.

ABOUT

How can we turn physical energy from the environment (e.g., light, sound waves) into meaningful perceptions (e.g., images, music)? This course will explore the processes by which physical stimuli are converted into neural code, and how that neural code is interpreted to render our perceptual experience of the world.

READINGS

Readings include information that complements (rather than replicates) what we do in class. Readings are required and should be completed prior to the class for which they are assigned. Most readings include reading guides – these indicate the information you should get out of the readings before you come to class. You will not turn in answers to the reading guides – they are for your benefit only. They will also sometimes indicate that you may skip sections of the reading (so be sure to look at them before you start reading).

There will also be some supplementary readings: these readings contain technical information that mirrors class material. These are not required and there will not be any material from them on exams that does not also occur in class or the required readings. Why, then, do they exist? If you didn't catch something during class, they can help you fill in what you missed. Supplementary readings are only necessary if you have trouble completing the exam guide (see below).

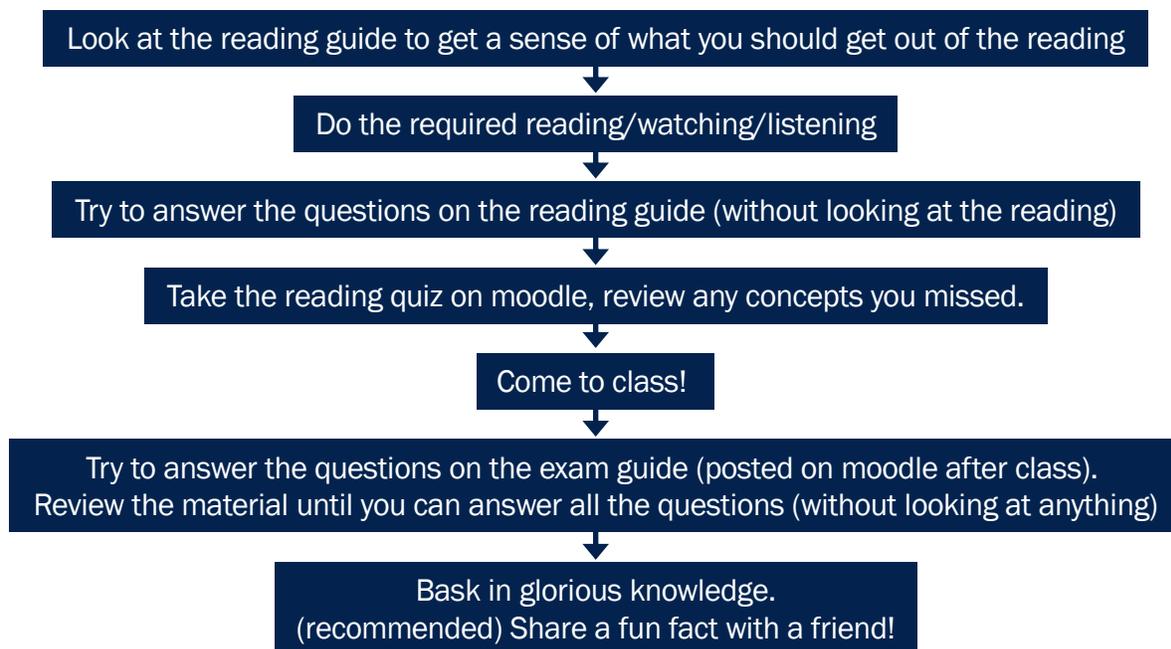
READING QUIZZES

Most days, there will be a quiz on moodle that covers material from the reading. These reading quizzes should be completed prior to class. They are short and low-pressure and contain basic factual questions about the reading for that day. They are designed to deter procrastination and ensure you've gotten the key information from the reading so we don't have to spend much time on that in class. Moodle will insist you answer each question until you get it right (and will record how many times you attempt).

EXAM GUIDE

After each class, Julia will add to the exam guide posted on moodle. The exam guide contains questions on information from the reading (often similar to the reading guides) as well as information from class. If you can thoroughly answer all the questions on the exam guide without looking at your notes, you'll be in good shape for the tests. If you get stuck on a question, consult your notes from class, the slides, and the readings. Still stuck? Check the supplementary readings. Still stuck? Ask!

RECOMMENDED STUDY PROCESS



MISSING CLASS

Although you are expected to come to and participate in every class, life may happen at some point in the term and cause you to miss class. If this happens, please email Julia ahead of time. After the class, get notes from a classmate and review the slides on moodle. If you're struggling with any of the material from the missed class after you've taken these steps, set up an appointment.

SPECIAL ACCOMMODATIONS AND EXTENSIONS

Please talk with Julia within the first two weeks of term if you require any special accommodations for class or testing. We will make whatever arrangements are necessary. Special accommodations for early/late tests that are not arranged in the first two weeks of term will be given only in the most extreme circumstances, and only given adequate warning. If you foresee having trouble turning in a written assignment by the deadline, please talk with Julia about getting an extension. If you have not gotten an extension, assignments lose a percentage point for every hour they are late.

There will be assignments that involve making sensory discriminations (e.g., identifying sounds or colors) that are based on typical sensory processing abilities. Please let Julia know if you have any concerns about being able to complete these tasks and we will make alternative arrangements.

ACADEMIC HONESTY

Academic honesty is expected of all students at Carleton College. The work you do in this course must be your own. Please refer to apps.carleton.edu/campus/doc/honesty/ for the full policy and ask if you have questions.

RESPECTFUL CLASSROOM ATMOSPHERE

Let's work together to make this a respectful and positive classroom atmosphere. This includes silencing and stowing phones and using laptops for note taking only, and being respectful of other opinions, backgrounds, personal preferences, and learning preferences.

COURSE GRADING

Moodle reading quizzes

5%

See page 1 for more information on reading quizzes. Although you will complete these at home, they are “closed book” so should be completed without looking at notes/readings.

Exams

There will be two midterms and a comprehensive final. Exams will include a combination of multiple choice questions, short-answers, diagrams to label, data to plot, and essays. Exams 1 and 2 will be given in class, and the cumulative final exam will be self-scheduled during the finals period. Exam 2 will also include a take-home portion that will be due on exam day.

Exam 1	15%
Exam 2	15%
Exam 3	25%

Let's Find Out! Projects

LFO! Projects are an opportunity for you to research and answer a question of interest in a thoughtful and engaging way (more information will be given in a separate handout).

LFO! 1	15%
LFO! 2	15%

Preparation & Participation

10%

Given the volume and complexity of the material we'll cover in this course, attendance, preparation, and participation are essential for mastery of the material and to be an active contributor to class.

The minimum amount of acceptable participation is showing up consistently, having done the reading, occasionally contributing, and being attentive. This is equivalent to a participation grade of approximately 80%. Things that bring that down include regularly missing class, being distracted (typically via phone/computer use), or being disruptive. Things that bring it up include more regular participation, substantive contributions to small group and class discussion, and active engagement.

Please note: No extra credit or additional assignments will be given at the end of the term to bring up grades.

COURSE CALENDAR

See moodle for readings

Week	Day	Date	Class topic & assignments
1	M	9/10	Introduction & attention
	W	9/12	Psychophysics & signal detection theory
	F	9/14	Neuroscience, multisensory processing
2	M	9/17	Gustation
	W	9/19	Gustation
	F	9/21	Olfaction
3	M	9/24	Olfaction
	W	9/26	Somatosensation
	F	9/28	Somatosensation / Pain
4	M	10/1	Catch-up / review
	W	10/3	Exam I
	F	10/5	Vestibular
5	M	10/8	Vestibular
	W	10/10	Audition - sound
	F	10/12	Audition - auditory transduction
6	M	10/15	Midterm break (no class)
	W	10/17	Audition- localization & ASA
	F	10/19	Audition - music **Let's Find Out! #1 due 5pm
7	M	10/22	Audition - speech
	W	10/24	Catch-up / review *get take-home section of Exam II
	F	10/26	Exam II (and take-home section due)
8	M	10/29	Vision - light and retina
	W	10/31	Vision - color
	F	11/2	Vision - color
9	M	11/5	Vision - motion
	W	11/7	Vision - depth & size
	F	11/9	Vision - faces & objects **Let's Find Out! #2 due 5pm
10	M	11/12	Conclusions
	W	11/14	No class (Julia at a conference)

Final Exam: Self-scheduled during exam period

ALL WRITTEN WORK SHOULD BE SUBMITTED VIA MOODLE.

AS WITH EVERYTHING IN LIFE, TOPICS AND THE SCHEDULE ARE SUBJECT TO CHANGE



S&P LAB

PSYC221, F18

LAB GOALS

The goals of the lab are: 1) to complement the class material with hands-on experience, and 2) to provide practice with research methods in S&P, including evaluating existing research, designing and conducting research, and sharing your findings orally and in writing in a clear and persuasive manner

LAB GRADING

Preparation & Participation

10%

Some days will include reading or assignments that should be completed before lab. Most meetings of the lab will include group reports that will be completed in pairs or small groups. These reports will be turned in during the lab and will involve notes on the experiments you conduct and data you collect. Some will include problem-set questions for the group to answer, or will require creating graphs based on the data.

Methods quiz

5%

In the second week of term, you'll take a quiz on key terminology in research methods and design. The purpose of this is to give us a solid foundation and common language that we can apply use the rest of term.

Flavor lab report

15%*

With a partner, you'll pose a question about flavor perception, answer it with existing data, and write a short lab report to present your findings.

Research project

In a small group, you will conduct an original study on perception in an area of interest. This will involve reading relevant literature, designing the methods, collecting and analyzing data, presenting your findings to the class and writing a lab report describing the investigation. You will get more information later in the term about the expectations and assignments involved.

Annobib	5%
IRB	10%*
Presentation	10%*
Participation	10%
Lab report	35%

* Submitted as a group

ATTENDANCE

The lab only has 9 meetings so it is very important that you attend all of them. If you must miss a lab due to a family emergency or illness, you must supply a note from a dean or doctor. If you miss a lab that includes data collection, it will be your responsibility to get data from a class member so you can still complete the necessary write-up or assignment. Unexcused absences will result in forfeiture of the day's participation points and credit on the group report (approximately 7% of your final grade).

Syllabus ID #:

COURSE CALENDAR WITH LAB

See moodle for readings

Week	Day	Date	Class topic & assignments	Lab
1	M	9/10	Introduction & attention	Research methods in S&P
	W	9/12	Psychophysics & signal detection theory	
	F	9/14	Neuroscience, multisensory processing	
2	M	9/17	Gustation	Methods quiz Psychophysics & signal detection theory
	W	9/19	Gustation	
	F	9/21	Olfaction	
3	M	9/24	Olfaction	Gustation demos, flavor preference data
	W	9/26	Somatosensation	
	F	9/28	Somatosensation / Pain	
4	M	10/1	Catch-up / review	Fill out <i>project preferences survey</i> by 5pm on the day before your lab Lab report 1 due before your lab Idea bounce
	W	10/3	Exam I	
	F	10/5	Vestibular	
5	M	10/8	Vestibular	Submit anno bib before lab Plan research projects
	W	10/10	Audition - sound	
	F	10/12	Audition - auditory transduction	
6	M	10/15	Midterm break (no class)	No labs this week IRB & methods due by 5pm on your lab day
	W	10/17	Audition- localization & ASA	
	F	10/19	Audition - music **LFO! #1 due 5pm	
7	M	10/22	Audition - speech	Project implementation Data collection can begin as soon as Julia OKs
	W	10/24	Catch-up / review *get take-home Exam II	
	F	10/26	Exam II (and take-home section due)	
8	M	10/29	Vision - light and retina	Open science & preregistration (do reading before lab)
	W	10/31	Vision - color	
	F	11/2	Vision - color	
9	M	11/5	Vision - motion	Bring all data to lab Color vision demos, eye dissection stats, data visualizations
	W	11/7	Vision - depth & size	
	F	11/9	Vision - faces & objects **LFO! #2 due 5pm	
10	M	11/12	Conclusions	Lab report draft due by 8:30am on your lab day, Presentations Peer review of lab reports
	W	11/14	No class (Julia at a conference)	
Final Exam: Self-scheduled during exam period				Lab reports due by end of exam period

ALL WRITTEN WORK SHOULD BE SUBMITTED VIA MOODLE.

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