

Viewing: **PSYC 230 : Perception & Sensory Processes**

Last approved: 05/12/18 3:12 am

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History

1. May 12, 2018 by Robert E. Wickesberg (wickesbe)

Catalog Pages
referencing this course

[PSYC - Psychology](#)

Programs referencing
this course

[0338: Psychology Minor](#)

[10KL0040BS: Food Science & Human Nutrition: Human Nutrition, BS](#)

[10KV5876BSLA: Brain & Cognitive Science, BSLAS](#)

[10KY1494BS: Speech & Hearing Science: Neuroscience, BS](#)

[5568: Psychology: Behavioral Neuroscience, BSLAS](#)

[5569: Psychology: Clinical/Community Psychology, BSLAS](#)

[5570: Psychology: Cognitive Psychology, BSLAS](#)

General Information

Effective Term:

College: Liberal Arts & Sciences

Department/Unit: Psychology (1299)

Name (ORG Code):

Course Subject: Psychology (PSYC)

Course Number: 230

Course Title:

Abbreviated Title: Perception & Sensory Processes

Course

Description:

Survey of the experimental psychology of sensory and perceptual processes and behavior; emphasis on the contribution of behavior science to understanding subjective experience of the physical and social environment.

Justification

Justification for change:

Please Note: a syllabus is required for General Education review:

Course Information

Course Credit

Course credit:

Undergraduate: 3

Graduate:

Professional:

Registrar Use

Only:

Banner Credit: 3

Billable Hours: 3

Grading Type

Grading type: Letter Grade

Alternate Grading Type (optional):

Available for DFR: No

Repeatability

May this course be repeated? No

Credit Restrictions

Credit Restrictions:

Advisory Statements

Prerequisites:

Concurrent
Enrollment
Statement:

Restricted
Audience
Statement:

Cross-listing

Cross Listed
Courses:

Class Schedule Information

Class Schedule
Information:

Fees

Is a fee requested No
for this course?

Course Description in the Catalog Entry

This is how the above information will be represented in the Catalog:

Survey of the experimental psychology of sensory and perceptual processes and behavior; emphasis on the contribution of behavior science to understanding subjective experience of the physical and social environment.

Additional Course Notes

Enter any other
course
information
details to be
included in the
catalog:

Course Detail

Frequency of
course:

Every Fall

Every Spring

Every Summer

Duration of the Full
course

Anticipated
Enrollment:

Expected distribution of student registration:	Freshman: 25 %	Sophomore: 50 %	Junior: 25 %	Senior: N/A
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General Education

General Education Behavioral Science
Category

General Information

Is the course required for a No
major concentration?

Is the course part of a No
sequence?

What is the frequency with which the course will be offered?:
(For Example: every semester, once a year)

Every fall and spring semesters in face to face/campus format, summer and eventually winter semesters in online format.

Briefly describe how the course fulfills the General Education objectives:

The course is an introductory survey of current theory and research in the areas of sensation and perception. Students will achieve a better understanding of how our senses allow for a better comprehension of human behavior, both when our senses are working properly, but also when our senses are impaired. They will learn the basic concepts regarding how our different senses connect us to the world, and the role that our minds (knowledge, bias, heuristics, etc.) play in making sense of and interacting with the world. The various methodologies used to study sensation and perception will be presented and critiqued. This will allow students to learn about the scientific method in this field and to explore the ethical implications of these various methods. This

course is useful for students in a wide variety of majors from engineering to design to fine and applied arts as well as psychology.

Regarding the development of critical thinking skills, this course is structured to create opportunities for students to engage in critical thinking and practice this skill. In the face-to-face version of the class, there are in-class group activities where students work together to comprehend the key concepts from the class. More importantly, in both face-to-face and online classes, students will engage in regular small-group discussions in a focus way. The topic of the discussions goes beyond the material covered in the class and asks students to apply the concepts and findings from research to daily life experiences and problems. The online discussions are monitored by the teaching assistants to ensure the discussion's group effectiveness. Note that it is thanks to the Moodle online platform (and the TA support) that we can achieve the "small-class feel" of small-group discussions in a large enrollment class. Recent studies have shown, in fact, that small, focused online discussions are better than in person group discussions at improving student satisfaction and critical thinking skills (e.g., Guiller, Durndell & Ross, 2008; Hamann, Pollock & Wilson, 2012; Jacob & Sam, 2010; Williams & Lahman, 2011). Online discussions allow students to best express their thoughts, and demonstrably increase participation of students from different ethnic and racial backgrounds. Group discussion feedback will focus on fostering discussion group effectiveness because this factor has been shown to predict course interest, engagement and critical thinking (e.g., Jones, 2014).

Note that the instructors in the class make a special effort to highlight the science that has been contributed by women scientists in the field. Although the content of the course is not directly related to social issues, on a number of occasions the instructors present material that has a bearing on gender differences, racial perception and cultural differences in perception. Examples of materials covered include: gender differences in color perception (color blindness, color super-perceivers, illumination context dependencies); gender differences in sensitivity in smell and taste, including a discussion of menstrual cycle and pregnancy effects on these sensory modalities; effects of culture and race on face perception and color perception; the effects of early skin-to-skin contact with newborns through the sensory modality of pleasant touch; skin color perception and racial differences in interpreting skin color signals (changes in skin blood saturation and/or oxygenation related to arousal, fear, sickness, etc...).

Describe the instructional format and provide special justification, if necessary:

To accommodate the demand for this course given the personnel and fiscal constraints of the department, the instructional organization for this class has traditionally been a large lecture format without discussion or laboratory sections. This has precluded the course from being submitted for general education certification, despite fulfilling the overall objectives of general education and the interest from students from across campus.

The Moodle platform that was used for the development of an online version of PSYC 230 has facilitated the creation of small discussion groups within the class. It is relatively easy for the instructor and the TA(s) to moderate and interact with these discussion groups much as would occur with face-to-face discussion sections. These online discussions in Moodle also enabled the creation of a rubric for how they will be graded. Students will spend 1-2 hours in the online discussions every week or two.

The on-campus version of the course has been restructured to be consistent with the aims of general education by blending the online discussion groups into the class (please see syllabus). The on-campus class had previously incorporated small group active learning opportunities that were informally organized during class sessions. The restructured, blended version extends those activities to include small group, online discussions of the instructional material. The format of both the campus and the online versions of the course is, therefore, not only appropriate for the discipline and course material, and it is now consistent with the general education aims.

Current enrollment statistics are as follows: Fall/Spring semesters in face-to-face lectures averages close to 200 students, with two 25% Teaching Assistants and one faculty instructor. The registration cap is 204. Summer/Winter online sessions will be new so we don't have data. As of April 30th, 2018, the current enrollment for our first offering of Psych 230 online is at 39 students. This class will also have 2 25% Teaching Assistants, though the exact level of support will increase if/as enrollment increases.

Describe the means by which the Communication Skills goal will be achieved:

As indicated in the syllabus, some of the topics for the small group discussions cover general issues in sensory perception, while others are research oriented and require students to think and discuss experiments, research design, and procedure. The group discussions are postings, responses, and reaction posts in which students have to demonstrate that they have understood and can communicate different aspects of the topics. Because the group discussions will be through Moodle, they can be monitored asynchronously by the instructor and the teaching assistants. This will provide the low faculty to student ratio necessary for effective monitoring of the discussions. The online group discussions will require 1-2 hours online every 1 to 2 weeks.

It should be noted that teaching assistants will provide students with feedback regarding how to communicate in a group discussion in order to keep the discussion focused on a specific topic, with the goal of improving discussing effectiveness. The TAs will also provide general feedback on individual posts with tips regarding how to best present written material. Individualized feedback is also given on matters relating to academic writing style (i.e., how to properly cite sources, etc).

Describe how evaluation and adherence to General Education guidelines will be monitored:

Please indicate the timeline for such evaluations

This course will be monitored by the departmental Undergraduate Studies committee,

which is chaired by the Director of Undergraduate Research, and by the Online Courses group, which is chaired by our Online Coordinator (Prof. Christine Shenouda). These two committees will use feedback for the online class from course evaluations provided by LAS Online, and the on-campus course will incorporate the questions from those evaluations into its ICES evaluations. We plan to monitor both the online and on-campus versions of PSYC 230 very closely to insure their success, since creating both online and blended courses is a relatively new venture for the department.

Indicate those who will teach the course and describe procedures for training & supervising teaching assistants:

The on-campus version of the course is taught either by a tenure-track or specialized faculty member of the Psychology Department. The instructor supervises and trains the teaching assistant(s), who will monitor the discussion sections. The online version will be taught initially by a faculty member, but eventually by one or more graduate student teaching assistants who are trained and supervised by a faculty member. We have worked out a supervisory structure with LAS Online that has functioned very well with the graduate student taught, online version of PSYC 100 (both during the summer and winter sessions), and plan to use the same structure for PSYC 230.

Social and Behavioral Sciences - Behavioral Sciences

If the course contains elements of both the Social Sciences and the Behavioral Sciences categories, show how the emphasis of the course makes it most appropriate for the Behavioral Sciences category for which it is being proposed.

Show how the course studies human behavior in an empirical approach.

Students will explore such phenomena as tactile perception, taste and odor recognition, spatial orientation, hearing and localization of sounds, object recognition, color vision, depth and motion perception, and the physiological mechanisms that underlie each of these phenomena. They will also learn about different neurological and neuropsychological conditions (e.g., blindsight, akinetopsia, prosopagnosia, numb-sense, anarchic and alien hand disorders). The study of sensation and perception is fundamentally empirically based, and the course presents and critiques the various methodologies that are used to experimentally to collect data both on how our senses work and on how the brain uses that information to perceive the world around us. This will allow students to learn about the scientific method in this field and to explore the ethical implications of these various methods.

Discuss the attention given in the course to the general issues and the methods of the behavioral sciences.

For the different senses (touch, smell and taste, hearing, balance, and vision) the course first investigates how each sense functions and then moves to more general issues such as how we understand the world through sound or motion, object and depth perception. The format of both the face-to-face and online courses will be lectures, demonstrations, and discussions. Research methodology is an important topic that first explored in Module 2 during the second week of the course and it is woven into all of the course readings and assignments. To complement the material, students watch videos and discuss research articles (as reported on scientific blogs or in the national media) to better explore the interactions between the topics covered in class and daily life. In some of the group activities, students engage with other members of their group in a constructive discussion on a specific issues related to how the brain creates our perception of the world. Other group activities will be research oriented: they will require students to think about experiments, research design, and procedure. Students are also encouraged to earn extra credit by participating in research through the Psychology Department Subject Pool, which gives them a unique exposure to how empirical experiments are performed.

In this class, the students will learn how to think like behavioral scientists in various ways. First, much of the material is taught by presenting a behavioral scientist's experiment and the evidence that scientist brought to bear on a particular question. Thus, students learn how behavioral experiments can be designed to address empirical questions about perception. For instance, we discuss how Eleanor Rosch and Debi Roberson went about investigating whether cultural experiences determine how humans perceive colors (this involved traveling to New Guinea to test tribes that have only two words to describe all colors and using what behavioral scientists know about categorical memory effects to design an effective experiment). In addition, some of the online small group discussions focus directly on having students design an experimental procedure to test some novel idea about perception or solve some real-life problem about perception (for instance, how would McDonalds design an experiment to change the recipe for their Big Mac to use cheaper ingredients without having customers notice the change in taste). Finally, in the face-to-face course, we do in class demonstrations where students test each other on various sensory modalities and illusions. Part of these demonstrations are aimed at teaching the actual experimental procedures that would be followed up in the lab and highlight the differences between an in-class demo and a real experiment.

Additional Course Information

Does this course No
replace an
existing course?

Does this course No

impact other
courses?

Does the addition No
of this course
impact the
departmental
curriculum?

Has this course No
been offered as a
special topics or
other type of
experimental
course?

Will this course be
offered on-line?
 Online and Face-to-Face

Faculty members
who will teach
this course:
 Alejandro Lleras, Simona Buetti Lleras, David Irwin

Course ID: 1006165

Comments to
Reviewers:

The instructors have agreed that there should be no prerequisites for this course, and they have indicated in the syllabus that the online discussions should require 1-2 hours online every 1-2 weeks.

Course Edits
Proposed by:

Key: 7970