
PERCEPTION & SENSATION LAB

01:830:302:93 Spring 2017
Busch Psychology Building, Room 105
Wednesday 5:00PM - 5:40PM

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Office Hours: Wednesday 5:00pm-5:40pm @ Sakai Online Chat Room or by appointment

The main goal of this lab is to develop scientific thinking skills, including how to form and test hypotheses and how to draw sound conclusions from results. We will be doing various lab exercises that will give you hands on experience with the research methods and important findings in Sensation and Perception. These exercises will give you opportunity to experience some phenomena first hand, as well as the opportunity to generate and test some hypotheses of your own. You'll also be able to improve some basic skills in using software, analyzing data and communicating scientific findings.

Course Objectives:



This course has been certified as satisfying four of the Writing and Communication Learning Outcome Goals (including WCR and WCD) of the SAS Core Curriculum.

Specifically, students will be able to:

- (a) Respond effectively to editorial feedback from peers, instructors, and/or supervisors through successive drafts and revision (WCR);
- (b) Communicate effectively in modes appropriate to a discipline or area of inquiry (WCD);

- (c) Evaluate and critically assess sources and use the conventions of attribution and citation correctly;
- (d) Analyze and synthesize information and ideas from multiple sources to generate new insights.

The aim of this course is to acquaint students with scientific research within the context of sensation & perception and cognitive psychology. Upon successful completion of this course, students will:

- (a) Have a basic understanding of the methods and techniques related to research design;
- (b) Be able to use basic statistics and statistical software to analyze data;
- (c) Be able to interpret the results of the statistical analyses;
- (d) Produce an journal-style empirical paper.

This laboratory class is meant to serve as a companion to lecture classes PSYCH-301 and PSYCH-305. The conceptual and theoretical basis for the exercises and demonstrations are developed in lecture. For this reason, concurrent or past registration in PSYCH-301 and/or PSYCH-305 is required.

Class requirements

Weekly activity and assignments: Each week students will learn some new material, participate in a lab exercise, and/or have a written assignment. Assignments will be graded such that there will be opportunity for revisions and improvements. Your instructor will announce the due dates of weekly assignments. There are three grade categories for your weekly assignments: P+, P and P-. If you get "P+" from an assignment, it means that your work is outstanding. "P" means satisfactory, and "P-" means unsatisfactory. If you get "P" or "P-" from a weekly assignment, you can revise that assignment to increase your grade to "P+" or "P".

If you miss more than two assignments, you will automatically fail the class.

Weekly meetings in the Chat Room: Every week we will meet (as a class) in the chat room of Sakai. These meetings will be held every Wednesday at 5pm. Attending these meetings and participating in the discussion is required.

Timetable and deadlines: Completion of work and uploading to Sakai according to the instructor specified timetable is required. You are responsible for all material, as well as completion of all assignments.

Getting help: Options for getting help include:

- 1) Weekly meetings in the online chat room of Sakai
- 2) Asking questions to the instructor by e-mail.
- 3) Individual in-person meetings by appointment
- 4) Individual online meetings in the chat-room by appointment.

Instructors will monitor the chat room and reply according to a schedule to be announced. The chat room is also a good forum for students to answer each other's questions. Doing so will help your own understanding of the material. Apart from the instructor's office hour, individual meetings with the instructor (either in person or in the chat room) can also be scheduled, depending on the instructor's availability.

Final Project: There will be a final capstone project, which will be based on an original lab exercise. The project, including the experimental design, collection and analyses of data and the written report (written in the style of journal articles in the field) gives you the opportunity to use the skills you have learned during the semester. Details of the project assignment will be described later in the semester.

Grading:

The individual weekly assignments are designed so that all students can learn the central concepts and skills of the course, including research methods, hypothesis formation and testing, analysis and presentation of results, and writing the elements of a lab report using the formats that are customary in research journals.

The final project and final written report gives students the opportunity to put together all these elements that have been learned into an original project.

Projects may be variations or extensions of the lab projects done anytime during the semester.

Project proposals must be approved by the instructor before beginning data collection.

Final project reports will be evaluated and graded based on all essential elements, including the soundness of the hypothesis, the methods and procedures used (including how many trials were run), the analysis and presentation of the results, the quality of the introduction and discussion, the quality of the paper, including adherence to conventions of journal-style articles and the clarity of the writing. Ample time will be provided to complete the project and to consult with instructors.

Unlike the small assignments, there won't be opportunity for revision for the final paper. A detailed grading rubric and a summary of the stylistic conventions of journal-style articles will be posted on the course Sakai site.

Course grades will be determined as follows:

The starting point for the grade is the grade on the final project.

This is the appropriate starting point because the performance on the final project reflects the concepts and skills learned during the entire course and learned from doing the weekly assignments. Course grades will equal the final project grade plus or minus adjustments reflecting performance on the weekly assignments, as follows:

- Satisfactory performance on the small assignments (average grade = P) will result in the course grade being equal to the final project grade.
- Superior performance on the small assignments (average grade = P+) will result in a course grade of $\frac{1}{2}$ **or to a whole** grade step higher than the final project grade (where $\frac{1}{2}$ step means, for example, B to a B+).

(We recognize that for students earning an A on the final project, there is no room to go any higher, however, this is the same that occurs in any when exam point totals fall above the "cutpoints" for grades of A.)

- Less than satisfactory performance on the small assignments (average grade = P- or incompletes on several assignment; missing or very late assignments) will result in the course grade that is $\frac{1}{2}$ **step or more** lower than the final project grade, depending on how many assignments were missed, incomplete, P-, or late.

Some important rules:

Computers: Lab exercises require computers that run either Windows or Macintosh operating systems. Lab software is not compatible with operating systems used on notebooks, tablets, or ipads. Lab exercises may be run on computers in a university computer lab (see <https://oit-nb.rutgers.edu/service/computer-labs-0> for a list of university computer lab locations). If you choose to run the exercises in a computer lab, be sure to bring a thumb-drive so that you can keep copies of your work. In addition, some of the exercises may require use of headphones.

No electronic recording (audio, video, photos) of class materials is allowed. No online posting of class material is allowed other than as approved by the instructor.

Data Collection: In this course we are doing lab exercises, not original research. All data for weekly exercises as well as the final project will be collected with either you

or your classmates serving as the participants. Collecting data from anyone else (roommates, friends, family members) is never permitted.

Academic Dishonesty Policy:

Rutgers University's Academic Integrity policy (<http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers/>) states, among other things, that "every Rutgers University student...make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of unsanctioned materials or unsanctioned collaboration." This includes having someone else run your experiment, having someone else read the material for you, and having someone else run the analysis for you. You cannot re-use any material you might have used or are using in any other section or course.

If the instructors believe that someone else is doing the work for you, this will be investigated in accordance with the university's procedures and policies.

Attendance Policy:

There will be two in-class meeting in the 2nd and the 9th week of classes. Please follow all the e-mails and announcements on Sakai for any change of plans about these meetings.

Attending those in-class meetings is mandatory.

If you decide to stay enrolled in this class after receiving this syllabus, I will assume you have read the entire syllabus and have agreed to all the policies outlined.