

Spring 19

Cognition Online Lab: Section 90 Syllabus

Busch Psychology Building, Rm 105

Weekly Chats: Friday 12:00 PM – 12:40 PM

In-Class Meetings: February 1 and March 29

Course Number: 01:830:306:90

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Please use your Rutgers University email address for all your correspondence with me (@rutgers.edu or @scarletmail.rutgers.edu). I won't reply to emails sent from non-school email addresses!

Give me at least 24-36 hours to respond to your emails.

Online Chat Session: Friday 12:00 PM – 12:40 PM (MANDATORY)

Aside from the in-class meetings, in weeks 2 and 9 of the semester (in Busch Psychology Room 105), there is a chat room on Sakai for our online chat sessions, which is going to be used for our **required** weekly meetings for the class.

Office Hours: By appointment only.

We will be doing various lab exercises that will give you hands on experience with the research methods and important findings in cognitive psychology. 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.

**Important Note:** 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! This syllabus is subject to change at any time. Changes will be announced via Sakai.

#### Learning Goals:

1. Develop scientific thinking skills, including how to form and test hypotheses and how to draw sound conclusions from results.
2. Demonstrate some well-known cognitive and perceptual phenomena by running lab exercises.
3. Learn-by-doing the main research methods of the field.
4. Learn how to analyze data and evaluate hypotheses.
5. Learn research communication skills.
6. Improve computer literacy.

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);

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- 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.

This laboratory class is meant to serve as a companion to the lecture class 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-305 is required.

### Resources:

We will be using two main software packages: PsychoPy will be used to run the lab exercises; Excel or Google Sheets will be used to analyze the data. We'll spend the first in-class meeting to install these resources to your computers. If you want to complete exercises through the university resources, most of the computer labs on campus have these software packages installed. (<https://oit-nb.rutgers.edu/labs>)

The class has a Sakai website (<http://sakai.rutgers.edu>), where the latest course information is posted. Weekly lecture slides, videos, lab exercises, and other supplementary documents will be posted under the Resources tab. Weekly assignments will be posted under the Assignments tab. Revisions will also be accepted through the same tab. Grades will be posted on the Gradebook tab.

### Computers:

Lab exercises require computers that run either Windows or Macintosh operating systems. Lab software is not compatible with iPad or smartphone operating systems, devices such as Chromebooks, nor computers running Linux. If you don't have a Windows or Mac computer to run the lab software, you can use the computers in any university computer lab to run the lab exercises (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.

### Important Rules:

No electronic recording (audio, video, photos, etc.) 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, etc.) is never permitted.

### Time Management:

Note that Rutgers University expects the median student to spend 3 hours per week on lab classes. (If you don't remember what "median" is, please ask!) Therefore, you should plan to spend 3 hours per week on this class. You should also be aware that any given week may take you more time if you find the material difficult, or less if you've covered it in previous classes. The great thing about online classes is that these three hours do not have

to be all at the same time, or even the same time every week! (There is one exception to the “same time every week”: see the section below called “Attendance and Active Participation Policy”)

Please also note that the Lab Coordinator has very carefully chosen assignments such that they will take the median student approximately 3 hours. If the list of assignments one week seems like a lot of individual assignments, that is because most of them will take a short time. If the list of assignments one week seems like short, that is because you are expected to spend more time on each assignment.

### Class Requirements:

**Weekly Activity and Assignments:** We will be working on weekly lab exercises. The individual weekly assignments are designed so that you 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. Each week, you will be given slides covering the conceptual background for that week’s exercise as well as the exercise file. You are expected to develop an understanding of the material in the slides and complete the exercise following the instructions. After each lab is completed (data collection and analysis), you will be given an assignment. Assignments will often consist of brief (1-2 page) reports on methods, raw data, data analysis (graphs, charts, statistical tests, etc.), results and conclusions. Assignments will be graded such that there will be opportunity for revisions and improvements.

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

**Getting Help:** Options for getting help include appointments or the chat room for the week’s lab. I will monitor the chat room and reply according to a schedule to be announced. The chat room is also a good forum for you to answer each other’s questions. Doing so will help your own understanding of the material.

**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. The instructor must approve project proposals before beginning data collection.

In order to pass this class, you must do the weekly assignments on time. In addition, you must do the final project. If you do not complete both of these aspects of the course, you will automatically fail the course.

**Grades:** Your final grade will be based on three things:

1. Attendance and active participation in the chat hours and forums (see Attendance and Active Participation Policy below) (10%)
2. Weekly activity and assignments (see Weekly Activity and Assignments Policy below) (10%)
3. Final project: An original project report completed during the last several days of class (80%)

Every assignment will count towards your grade.

Grades for this course will not be curved or scaled.

The criteria for grading your work will be:

- Effort and class participation in online chat room hours and forums
- Demonstration of progress in understanding and using software tools
- Clarity and format of graphs, tables and writing
- Demonstration of understanding basic perceptual concepts introduced in the labs

#### Class Policies:

**Weekly Activity and Assignments Policy:** Students who hand in the assignment on time and receive a failing grade will be given the option of handing in one revised version within one week of receipt of the graded assignment. The revised report will then be graded. Revising an assignment does not guarantee a higher grade. No revisions of a failed assignment will be accepted after this one-week delay, and no subsequent revisions will be accepted after the first revision, although I will be available to meet with you at any time to discuss the material and your performance. Students who did not hand in the original assignment on time will not be given the option to revise their work. However, they can still receive partial credit if they submit it by the end of the revision period. When the revisions were enabled in the Assignments tab on Sakai, late assignments must be submitted there, and the maximum grade they can receive will be a P. If their late assignment is not submitted by the revision due date it will become an F and there will be no further opportunities to receive credit for it. The grades will be uploaded to Sakai on a 3 point scale (**0 = F, 1 = P- , 2 = P, and 3 = P+**).

The weekly assignments will be graded on pass/fail scale:

- P+ (3/3): Excellent work
- P (2/3) : Good, pass
- P- (1/3) : Minor problems, needs improvement
- F (0/3) : Fail, requires redo

Scores on these weekly assignments will be used to adjust the grade given on the final project. **A half letter grade will be added** for 3 P+'s accumulated during the semester. **A half letter grade will be subtracted** for 3 P-'s accumulated during the semester. *If an F is not redone, it will also cause a half letter grade deduction.* On an important note, **if you miss 2 (two) assignments, you will fail the course directly.**

- 3 P+'s: Add one-half letter grade
- P: No points added or deducted
- 3 P-'s: Deduct one-half letter grade
- F: Deduct one-half letter grade if left uncorrected

All laboratory assignments and reports must be completed by the individual student. Collaborative reports will be given an F grade. Please see Academic Integrity Policy below. In addition, your assignments will be checked using Turnitin, a software that checks originality of your assignments by comparing it to content on the Web, articles, books, and assignments of previous students of this class.

**Final Project Policy:** The final project is the writing of a full laboratory report based on an original experiment carried out in class during the final weeks of the semester. These reports will be given a letter grade (A, B+, B, C+, C, D, F).

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

**Attendance and Active Participation Policy:** Attendance is **MANDATORY** for this course. Each week you will be required to attend class, either in person during weeks 2 and 9 of the semester or online. Attendance will determine your participation grade in the course. To receive credit, you must be in the chat room on time, for the entire time, and you must contribute meaningfully to the discussion. A "meaningful contribution" includes comments such as a question about the material that is not answered in the power point or the movies assigned, or answering someone else's question with a reasonable answer. Contributions that will not be counted include comments such as "I understood everything," or "What did everyone do this weekend?" Each student is required to remain and participate in the chat room for the full scheduled time. Don't hold back on asking questions in the chat room! If you have a question, chances are someone else has that same question.

Note: This chat time is included as part of your time-management allotment.

If you miss a chat meeting for a legitimate reason (e.g. illness, religious holiday) you must send an official excuse note (e.g. doctor's note). Missed chats that are not excused will negatively impact your participation grade. You must attend the weekly chat meetings on Sakai. Not attending prevents you from learning about the goals and content of the lab projects. If you are more than 20 minutes late you will be marked down as having an unexcused absence.

**Academic Integrity Policy:** In science, there is absolutely no room for fraud or untruth. Our job as scientists is to search out facts, not just for ourselves but for society as a whole. Consequently, you should be very clear that, just as I expect you to learn about the topic matter, I also expect you to learn about scientific honesty. In the work that you present to me, falsifying, plagiarism, or copying without attribution will not be tolerated. Additionally, re-use of assignments from other classes will not be permitted. Intentional ethical violations will be handled in accordance with the university's academic integrity 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." All assignments will be submitted to the Turn-it-in system, where its originality will be verified. Please check the school guidelines for further clarification of violations.

**All course materials can be found on <http://sakai.rutgers.edu> after you log in. It is expected that you have reviewed all relevant materials to the week's assignment prior to our schedule online chat.**