Summer 2017

Cognition Lab Syllabus

Course Number: 830:306

Instructor: Jason Rubinstein

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I will only respond to emails from a Rutgers University email address (@rutgers.edu, @scarletmail). Please give me at least 24 hours to respond to emails.

Office hours: By appointment in Psychology Room 146 and any time in the Sakai chat room

Course Description

We will be doing various lab exercises that will give you hands on experience with the research methods and important findings in Cognition. 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. Throughout the semester, you will complete various assignments and interact with your fellow students and me with the goal of improving your scientific writing skills as well as skills in using scientific software and data analysis programs such as Excel.

Aside from the first week and the final project, we will generally spend one week on each lab topic. The final project will involve developing a scientific experiment of your own and testing an original hypothesis.

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);

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.

Course Website/Materials

- All required class materials are available on the Sakai website for the course including:
 - Experiment files
 - PowerPoint slides
 - o Instructional videos
 - o More!
- Assignment due dates and submission will be in the assignments tab, and grades will posted in the gradebook tab on Sakai.
- All uploaded assignments must be in .doc, .docx, or .pdf format, and all data that is uploaded must be in .xls/.xlsx or Google sheet format.

Computers

As a hybrid course, lab exercises require computers running either Windows or Macintosh (OS X) operating systems. The lab software is *not* compatible with iPad or smartphone operating systems, devices such as Chromebooks, nor computers running Linux. If you do not have a Windows or Mac computer that can run the lab software, you can use any of the computers in a university computer lab (see <u>https://oit-nb.rutgers.edu/service/computer-labs-0</u> for a list of university computer lab locations), which have the required software already installed. If you choose to use one of the lab computers, please be sure to bring a thumb drive to keep copies of your work. Additionally, some exercises may require the use of headphones.

Important Rules

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.

Grading

0

- Your final grade in the course will be based on 3 things:
 - o Attendance/participation
 - Weekly lab assignments
 - Final Project: An original project completed during the last several class meetings
- All weekly assignments will count towards your grade. There will be **no exams** for this course.
 - The criteria for grading your work will be:
 - o Effort and class participation
 - o Demonstration of progress in understanding and using software tools
 - o Clarity of graphs
 - o Clarity of writing
 - o Demonstration of understanding basic perceptual concepts introduced in the labs

Final Project

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). This project will account for a large percentage of your grade.

Weekly Assignments

Each week, we will work on lab assignments on various topics. After data collection and analysis, you will be assigned a brief write-up which will be due about week later, consisting of one or more sections of a full lab report (methods, results, data analysis, etc).

These assignments will be graded in general on demonstrated effort, clarity, and understanding of the introduced concepts.

Based on the above, you will receive one of the following grades:

- o 3: You did well on the assignment
- **2:** You did okay.
- **1:** You did poorly.
- **0:** You didn't submit the assignment.

If you hand in the assignment on time and receive anything lower than a 3, you will get the option to **revise** your assignment based on my feedback. These revised assignments must be handed in **within a week** of the feedback. The revised grade will then replace the original grade *IF* the revised grade shows improvement (it does not always guarantee a better grade). Only one revision attempt is allowed. If you take the feedback into account in your revisions every week, you can really turn your grade around!

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 assignments with a score of 3 accumulated during the semester. A half letter grade will be subtracted for 3 assignments with a score of 1 accumulated during the semester. If a 0 is not redone, it will also cause a half letter grade deduction.

- 3 3's: Add one-half letter grade
- 2: No points added or deducted
- 3 1's: Deduct one-half letter grade
- 0: Deduct one-half letter grade if left uncorrected

Example: Student A has 3 3's, while student B has 3 1's and 1 0. If student A receives a B+ for their final paper, they receive +5 for having 3 3's, making their final paper grade an A. If student B receives a B+ for their final paper, they receive -10 for having 3 1's and a 0, making their final paper grade a C+.

All laboratory assignments and reports must be completed by the individual student. Collaborative reports will be given a 0 grade. Please see Academic Dishonesty Policy below.

All lab assignments need to be completed or I will not grade your final project.

Late Assignments

If you don't turn in the assignment on time, you will not be able to revise it. However, you can receive partial credit by submitting your assignment as the revision (in the appropriate assignment page on Sakai). In this case, the highest grade you can receive will be a 2, but if you do not submit this by the revision due date, you will receive an unchangeable 0. In general, please do your best to submit assignments on time as to not incur any penalties.

Academic Integrity

All work submitted must be your own and must be original work done for this class. You can't reuse an assignment from other classes.

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 and/or watch the lectures for you, and having someone else run the analysis for you. 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. Turnitin will be used to check the originality of all written assignments.

Thanks for reading, and I hope for this to be a great semester!