Learning Processes Lab Syllabus

Fall 2016 – 01:830:312:05

Instructor: Andrea Shang
Email: andrea.shang@rutgers.edu
Office Hours: by appointment (email or talk to me after class to schedule a time)

Class meeting time/place: Wednesdays, 3:20-6:20pm   Busch Psychology, Room A361
Textbooks: None, required readings will be posted on Sakai

I.   Course Aims and Outcomes

The aim of this course is to acquaint students with scientific research within the context of learning psychology.

By the end of this course, you will:

- have a basic understanding of the methods and techniques used in animal learning research
- understand the procedures for collecting data in animal learning research
- interpret the results of statistical analyses
- produce an APA-style empirical paper

Additionally, 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.
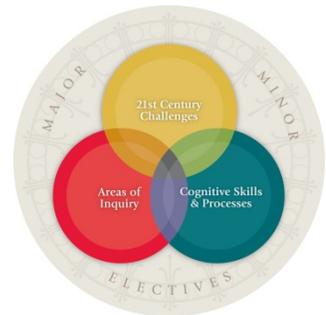
II.   Course Requirements and Assignments

1.   Lab reports (60 points)

All lab reports (drafts and final versions) must be computer generated (i.e. typed) and should be written following the APA format, which we will go over in class. All lab reports must be submitted in person (a hard copy) and on Sakai (under the "Assignments" tab). Reports are due **at the start of class**.

The experiments are a group activity, but these lab reports are not. Any work submitted by a student in this course for academic credit will be the student's own work. Copying and turning in someone else's work as your own –

even with their permission – is a form of academic dishonesty. Should copying occur, both the student who copied work *and* the student who gave material to be copied will automatically receive a zero.

Late submissions: 10% of the total points for that report will be deducted for <u>each</u> day it is late.

This is an *individual assignment*.

2. PEER REVIEWS (20 POINTS)
You will (anonymously) revise a scientific report written by one of your colleagues (chosen at random). I will then grade the quality of the feedback, and the author will receive the revisions. This does not change the original grade of the report itself. The purpose of this assignment is to learn how to read scientific reports critically and to provide constructive feedback.

Like the lab reports, this is an *individual assignment*.

3. CREATIVE PROPOSAL (10 POINTS)
This is where you will get a chance to apply what you have learned about experimental design and the Scientific Method. Each group will come up with a research question related to the field of learning, and design an experiment that would address that question. As a group, you will then present this to the class in a short, 15-minute overview. Some things you should consider in your proposal: What is/are your research question/s (and why)? Who are your subjects (and why)? How will you conduct this experiment? What do you expect to find?

 The proposal has to be related to this class (i.e. learning), but you are otherwise free to be as creative as you like. You do not need to be 'realistic' in terms of funding, time, manpower, but you do need to be scientific. There is no "right" answer; be prepared to explain the rationale behind your proposed study.

You will be graded (as a group) on how well you define your research question and experimental design.

4. ATTENDANCE/PARTICIPATION (10 POINTS)
Attendance in this class is critical to the success of the experiments, and therefore, mandatory. As the lab reports are dependent on the experiments in class, **an unexcused absence during the data collection period(s) of any experiment will result in a zero for that lab report.** An absence will be excused only with a note from the Dean's office. You are responsible for any information you missed.

Everyone starts off with 10 attendance points (roughly one per class). Unexcused absences will receive a deduction of 1 point; lateness (arriving >15 minutes after the start of lab) will result in a 0.5 point deduction.

Arriving more than 20 minutes late to class will count as an unexcused absence. Arriving late affects your group's ability to carry out the experiment. Lab reports depend on being able to carry out the experiment – having enough time – and collecting data.

5. READING/RESOURCES
There is no textbook for this course. Three articles will be provided as background information for each experiment. These will be posted on Sakai. You are responsible for reading these articles before the lab and knowing the information. We will be discussing them in class before the experiments. The information will also be necessary to complete the lab reports.

Additionally, you may want to check out the following resources for APA style writing:

http://www.apastyle.org/

https://owl.english.purdue.edu/owl/resource/560/01/

6. GRADING

The maximum total is 100.

Assignment	Maximum Points
Lab Report #1	15
Introduction & Methods	(5)
Results & Discussion	(10)
Lab Report #2	20
Lab Report #3	25
Peer Review 1 of Lab Report #1	10
Peer Review 2 of Lab Report #2	10
Creative Proposal Presentation	10
Attendance	10

III. ACADEMIC INTEGRITY AND CONDUCT

You are expected to abide by the Rutgers University Code of Student Conduct and Academic Integrity Policy. The policy on academic integrity can be found at http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers/

Plagiarism is a violation of academic integrity and will result in an automatic zero for that assignment. Penalty for violation of the University Code of Student Conduct can also be extended to include failure of the course and University disciplinary action. I will be using Turnitin to check all writing assignments for plagiarism.

Mistreating or mishandling of the rats will result in a dismissal from the class and an 'F'. There are no excuses and no exceptions.

IV.   COURSE SCHEDULE

[*This is a tentative schedule and subject to change. I will announce any changes/updates in class, and update the syllabus accordingly. It is your responsibility to keep up with any changes.*]

Week/Date	Topics	Assignments Due
Week 1 September 14	Course Introduction, Plagiarism, OSHA surveys. The Scientific Method, Research Design. Care and Handling of Lab Rats. (Brief) Introduction to Experiment #1.	Complete animal training and submit OSHA forms
Week 2 September 21	APA: Title Page, Introduction, Methods, References. Introduction to Experiment #1 (continued). Data collection for Experiment #1: week 1.	Read articles for Experiment #1. Complete animal training and submit OSHA forms. ***Animal training must be complete to participate in lab.
Week 3 September 28	APA: Results, Discussion. Data collection for Experiment #1: week 2	
Week 4 October 5	Review of statistics. Discuss data for Experiment #1. Introduction to Experiment #2.	**Lab Report #1 (Introduction & Methods) due.**
Week 5 October 12	Review Experiment #2 articles. Data collection for Experiment #2: week 1.	Read articles for Experiment #2.
Week 6 October 19	Data collection for Experiment #2: week 2.	**Lab Report #1 (Results & Discussion) due.**
Week 7 October 26	Review Data for Experiment #2. Introduction to Experiment #3.	Read Experiment #3 articles.
Week 8 November 2	Data collection for Experiment #3: week 1.	**Peer Review #1 due.**
Week 9 November 9	Data collection for Experiment #3: week 2.	
Week 10 November 16	No class! (SFN)	**Lab Report #2 due.**
Week 11 November 23	No class (Thanksgiving)	
Week 12 November 30	Review articles for Experiment #3 Review data for Experiment #3 ** Presentations of Creative Proposal**	**Creative Proposal Presentations**
Week 13 December 7		**Peer Review #2 due.**
Week 14 December 14	No class	**Lab Report #3 due.**