COGNITION LAB

01:830:306:05
Fall 2020

Main Canvas Page: https://canvas.rutgers.edu/

Weekly Class Time: Tuesday, 3:20-4:40 PM, starting the 3rd week of Rutgers NB scheduled classes.

The meetings will be held via Zoom. Students are expected to log in at the start of the class time, 3:20 PM.

Instructor: Elif N. Poyraz, Cognitive Psychology, PhD Student

E-mail Address: elifnur@psych.rutgers.edu

Please use your Rutgers University email address for all of your correspondence with me (@rutgers.edu or @scarletmail.rutgers.edu). I won't reply to emails sent from non-school email addresses. Please give me 2 business days to respond to your emails.

Office Hours: Thursday, 11:00 AM- 12:00 PM, and by appointment, will be held via Zoom.

Faculty Coordinator: Dr. Mimi Phan (mphan@scarletmail.rutgers.edu)
Faculty Supervisor: Dr. Melchi Michel (melchi.michel@rutgers.edu)

Course Overview

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 firsthand, 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.

Required Books & Materials

Required readings will be provided on CANVAS throughout the semester.

Technology/Software Requirements

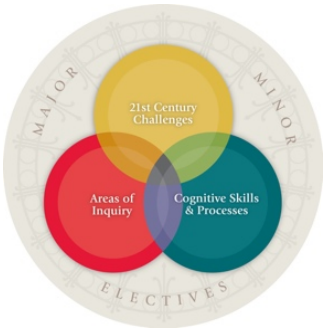
Software for Remote Learning:

Rutgers Box account: (https://box.rutgers.edu/)
Rutgers Zoom Account: (https://it.rutgers.edu/zoom/)

Technology for Remote Learning:

- ***Computer***: Laptop or desktop computer. Lab exercises require computers that run either Windows or Macintosh operating systems. Lab software is ***not*** compatible with operating systems used on android tablets, Chromebook or iPads.
- ***Internet Connectivity:*** Preferably a high-speed connection. You may also use a wireless hotspot through your mobile provider.
- ***Microphone (optional):*** This may be built into your device, but an external microphone or headset will provide better sound.
- ***Webcam (optional):*** Many computers have one built in, but you can easily connect an external USB camera.

Learning Goals



Upon successful completion of this course, students will:

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 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.

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 Division of Student Affairs Diversity & Inclusion Statement

*Excerpted (*http://inclusion.rutgers.edu/):

> *"The Division of Student Affairs works to create an environment of inclusion which respects and affirms the inherent dignity, value, and uniqueness of all individuals, communities and perspectives. Our practices reflect awareness and understanding of the complexity of identity and the increasing interconnectedness of our world. It is our responsibility to promote and maintain a community of compassion, embracing the rich dimensions of diversity, and facilitating opportunities for understanding and the expression of both individual and shared truths."*

Current Academic Integrity Policy and Honor Pledge

Overview: Rutgers University takes academic dishonesty very seriously. By enrolling in this course, you assume responsibility for familiarizing yourself with the Academic Integrity Policy and the possible penalties (including suspension and expulsion) for violating the policy. As per the policy, all suspected violations will be reported to the Office of Student Conduct. Academic dishonesty includes (but is not limited to):

- Cheating
- Plagiarism
- Aiding others in committing a violation or allowing others to use your work
- Failure to cite sources correctly
- Fabrication
- Using another person's ideas or words without attribution–re-using a previous assignment
- Unauthorized collaboration
- Sabotaging another student's work in doubt, please consult the instructor

Honor pledge: All students will need to sign the Rutgers Honor Pledge on every major exam, assignment, or other assessment as follows:

- *On my honor, I have neither received nor given any unauthorized assistance on this examination (assignment).*

Summary:
http://nbacademicintegrity.rutgers.edu/home-2/academic-integrity-policy /

Resources for Students:
http://nbacademicintegrity.rutgers.edu/home-2/for-students/

Self-Reporting Absence Application

Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website https://sims.rutgers.edu/ssra/ to indicate the date and reason for your absence. An email is automatically sent to me.

Course Structure and Requirements

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.

Tentative Schedule:

Weeks	*Date*	*Material & Assignments*
1	Sep 1	NO CLASS
2	Sep 8	NO CLASS
3	Sep 15	Intro to course, Syllabus, PsychoPy, Basics of the scientific method
4	Sep 22	Psychophysical methods; Review of statistics: Mean and Standard Deviation; ***Expt. 0. Line length***
5	Sep 29	Basics on scientific writing: Style, Intro, and Methods, citations; Expt.01. Divided Attention Take Home Reading Qs on Expt.01
6	Oct 6	Basics on scientific writing: Results and Discussion ***Lab Report 1-Intro, Methods, Citations only –15 points (on Expt1)***
7	Oct 13	Background for experiment "Mental Rotation". ***Expt. 02. Mental Rotation*** ***Take Home Reading Qs on Expt.02***
8	Oct 20	Background for experiment "Attentional Blink" ***Expt. 03 Attentional Blink*** ***Take Home Reading Qs on Expt.03***
9	Oct 27	Background for experiment "Stroop Effect". ***Expt. 04. Stroop Effect*** ***Take Home Reading Qs on Expt.04***
10	Nov 3	Writing Workshop for Lab Report 3 Lab Report 3 Intro, Citations, et al.)

11	Nov 10	Recap/data analysis & review (Lab Report 3 Methods & Results)
12	Nov 17	Integration & Overview (Lab Report 3 Discussion)
13	Nov 24	**NO CLASS** (Thanksgiving Break) ***Due: 2-3 pages Experimental Critique and thought experiment***
14	Dec 1	Open Office Hours (Lab Report 3 Intro, Citations, et al.) ***Due: Critical Reflection***
15	Dec 8	Open Office Hours. Lab report 3 (on Expt3) FINAL due by ***Fri 12/11 at 11:59 pm*** **note unusual due date**

The criteria for grading your work will be:

- Effort and class participation
- Demonstration of progress in understanding and using software tools
- Clarity of graphs
- Clarity of writing
- Demonstration of understanding basic perceptual concepts introduced in the labs

Rubric

(Total 100 Points)

15 points	Lab Report 1 (Experiment 1) Intro, Methods, Citations only
15 points	Lab Report 2 (Experiment 2) Results, Discussion, Citations only
30 points	Lab Report 3 (Experiment 3) Full lab report
15 points	Quizzes (5 points each)
15 points	2-3 pages Experimental Critique and thought experiment
8 points	Take Home Reading Q's (2 points each)
2 points	Critical Reflections: Current Events/Examples of Real-life cognition process.

The following grade conversion chart will be used to calculate the final letter grades:

A = 89.5-100
B+ = 84.5-89.49
B = 79.5-84.49
C+ = 74.5-79.49
C = 69.5-74.49
D = 59.5-69.49
F = 0-59.49

Lab Reports

The 1st and 2nd lab will focus on specific parts of a scientific writing (*e.g.*, only intro and methods for Lab Report 1). The 3rd lab report will be a full report consisting of all relevant aspects of a scientific writing piece.

Experimental Critique & Thought Experiment

You'll pick 1 of the 5 experiments that we will discuss throughout the course. In this 2-3 page assignment, you need to provide your critical reaction to the experiment and elaborate on it by proposing a 'hypothetical' experiment which would remedy the missing point(s) you have discussed in your reaction/critique. You should briefly discuss what kind of results you would expect from this thought

experiment. The main aim of the class is to equip students with the ability to understand and critique scientific work. This assignment allows students to work on those critiquing skills.

Quizzes

Quizzes will be held during the first 15-20 minutes of class at 3 points during the semester. These quizzes may be based on the articles for each experiment, APA style, and/or the basic statistics used with our data throughout the semester. If you are late on the day of a Quiz, you will ONLY be allotted the remaining time to complete the quiz. If you arrive after the quiz has finished, you will receive an automatic zero for that quiz. The quizzes are aimed to make sure that you are following the material and can address points that need more attention in a timely manner.

Critical Reflections

In this brief 1-page (max.) report you should connect one of the cognitive processes we have learned in class to a real-life event. This real-life event can be anything; Something that you or someone you know have experienced, or it could even be an event from a TV show/movie. You should clearly explain what the concept is, describe the real-life event and tie them together by explaining how this event is an instance of the concept we discussed in class.

Take Home Reading Q's

You will be asked to answer 2-3 questions related to the background reading for the experiments. They will require very brief responses and aims as a guide to better read the scientific articles.

Student-Wellness Services

(All of these services are being provided remotely during Fall 2020.)

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ http://health.rutgers.edu/medical-counseling-services/counseling/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community, and consultation and collaboration with campus partners.

Crisis Intervention : http://health.rutgers.edu/medical-counseling-services/counseling/crisis-intervention/

Report a Concern: http://health.rutgers.edu/do-something-to-help/

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / https://ods.rutgers.edu/

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: https://ods.rutgers.edu/students/documentation-guidelines. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: https://ods.rutgers.edu/students/registration-form.