

BRAIN & BEHAVIOR LAB

PSY 4515

Instructor: Lynn White, Ph.D.

Office: GC 308, 586 x 7913

Office hours: MTTHF 1:00-2:00 and W
10:00-11:00.

Email: white_L@suu.edu

Prerequisite: PSY 1010, 4510



Lab 1: Humane treatment & use of rodents
Habituation to the runway maze

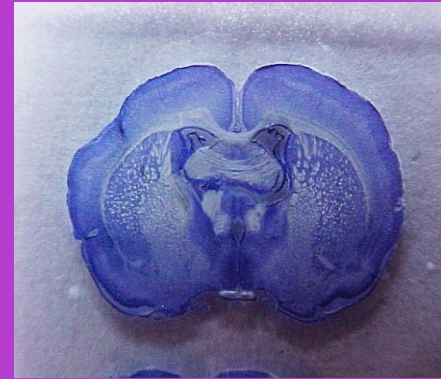
Lab 2: test of short-term memory using the
runway maze, habituation to the tube
test

Lab 3: test of long-term memory using the
runway maze, tube test for social
dominance

Lab 4: step down test for fear

Lab 5: Blood glucose responses to restraint
stress

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Lab Description & Objectives

The intent of the lab is to give you hands on experience and training in the field of behavioral neuroscience. This will not only serve to enhance your appreciation for the interaction between biology, the environment, and behavior, but also to develop some of the skills necessary to pursue graduate studies or a career in the same or a related field. It will help solidify the material learned in PSY 4510, as well as give you the information and experience necessary to make informed and responsible decisions concerning animal research.

Upon successful completion of the lab, you will be able to: treat rodents humanely and maintain their welfare, sample distal blood and measure blood glucose levels, record behavior on the runway maze, the step-down test for fear, and the tube test for social dominance.

You will also be testing and collecting data for a pilot study to investigate the effect of sound medium (digital vs analog) and sweetener type (sucrose vs sucralose) on behavior and physiological responses in mice.

Lab Work outside of our scheduled lab time

In most cases, you will not be able to complete all lab work during our three hour lab. You will need to arrange to meet with myself or the lab technician (Lexi) to let you into the lab so you can finish up. This **MUST** happen before the next lab. Do not wait until the last moment!



Attendance

The nature of the labs is such that they cannot be repeated or made up. Aside from losing points for the lab summary, you will have lost a valuable experience. Students who miss more than 2 labs will likely not pass the lab.

Note: most labs will run the full three hours. Plan accordingly.

Lab Reflection

Materials for each lab will be posted to the class web page. Be sure to read and watch these before each lab. Upon completion of a lab, you will be required to submit a summary and a thoughtful reflection of the lab. The summary must be in your own words, not copied and pasted from my website or copied from someplace else. These are due the Friday immediately following the lab (-5% per day if late).

Note: if you miss a lab, the lab summary & reflection cannot be made up. That's the nature of the beast.



Grading

Lab summaries	50%
Extracurricular lab time	40%
CITI certification	10%

A	93%+	C	73-76%
A-	90-92%	C-	70-72%
B+	87-89%	D+	67-69%
B	83-86%	D	63-66%
B-	80-82%	D-	60-62%
C+	77-79%	F	0-59%

A B C D F

Cell Phone Policy

Please turn your cell phone off during labs and when around the animals. If you are expecting an emergency, put the cell phone on vibrate and politely excuse yourself from the lab to answer the call.

Taking and Sharing Photos Policy

Much of the public's negative opinion toward animal research stems from social media posts taken out of context. You may take photos in the lab **OTHER** than those showing blood sampling and restraint. Please do not take photos of your lab mates without their explicit permission.

Disclaimer

Information contained in this syllabus, other than the grading, late assignments, makeup work, and attendance policies, may be subject to change with advance notice, as deemed appropriate by the instructor.

Workload Expectations

We have 15 hours of scheduled lab time. Students can expect to spend another 20-30 hours working with the animals and completing assignments.



canvas

All assignments are submitted to canvas.

CITI Training Certification

You will need to complete the CITI Training Course for the ethical treatment and use of laboratory animals. This takes about 30-60 minutes. It does not need to be completed all in one sitting.



Assessment of Risk

As with many labs in the sciences, sharp objects and hazardous materials are used. However, every precaution will be taken to minimize the risk. Please inform me should you know or suspect you are pregnant so that additional safety precautions can be taken.

Another potential risk is that of being bitten/scratched/urinated/defecated on by one of the rodents. Though I will instruct you on proper handling techniques, animals are unpredictable (as are you!) and I cannot guarantee that any of these things will not happen. You should make sure you are up to date on your tetanus shot just in case. Lastly, if you are allergic to rodents, cats, dogs etc... you may want to take appropriate precautions to avoid an allergy/asthma attack.



SUU ESSENTIAL LEARNING OUTCOMES

Addressed by PSY 4515

Knowledge of the Physical and Natural World



Through study in the behavioral and life sciences

***Focused** by engagement with big questions, such as how can nervous and endocrine system manipulations affect behavior and vice-versa? How can rat research tells us anything about humans?*

Intellectual and Practical Skills, including



Inquiry and analysis
Quantitative literacy

Critical thinking
Team work

Problem solving

***Practiced extensively** in the course of conducting and interpreting laboratory activities*

Personal and Social Responsibility, including



Ethical reasoning and action

***Anchored** through extensive discussion on the ethical and humane use of animals in research*



STATEMENTS REQUIRED IN COURSE SYLLABI

[Per SUU Policy 6.36](#)