PSYC222: LEARNING

DEPARTMENT OF PSYCHOLOGY &
NEUROSCIENCE
MWF 1:25-2:15PM
PEABODY 218
SPRING 2018 COURSE SYLLABUS

Instructor: Marsha Penner, PhD   **Office**: Davie Hall 237
Office hours: Monday 2:30-3:30pm   **Phone:** 919.962.4942
(Please use the sign up tool on Sakai to reserve time)

Contacting me: Please use the messages tool on our course Sakai site rather than my email address

COURSE DESCRIPTION

This research-exposure course is designed to introduce the student to the topic of learning and behavior. We will consider Pavlovian or "Classical" learning, operant learning, observational learning, forgetting and the limits of learning. Through readings and hands-on activities, students will acquire knowledge of the procedures used to study learning, the ways that learned behaviors are expressed, and theories that have been proposed to explain how learning is represented in memory. This course is intended for undergraduates interested in how animals, including humans, learn. The prerequisite for this class is PSYC 101.

OBJECTIVES

Student in this class will learn to do the following:

- Compare and contrast different kinds of learning (e.g., Pavlovian learning and Operant learning)
- Discuss major learning theories
- Describe how learning is formally assessed in a research setting
- Apply knowledge about learning theories and how learning is assessed to complete a research project
- Discuss how learning research can be applied to issues in everyday life (e.g., clinical applications)

COURSE RESOURCES
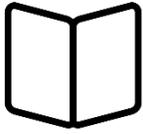
Required textbooks: 1) Learning and Behavior by Paul Chance. 7th edition. 2) Don't Shoot the Dog by Karen Pryor. There is a copy of both of these book on reserve in the library. Required software: CyberRat

Course website: Quizzes, assignments, etc can be found on the course Sakai site.

Graduate Research Consultant (GRC): In this research-exposure course, Shaina Garrison will be joining us as your GRC. Shaina is available during some classes and by appointment to talk to you about your research project. You can contact Shaina directly using the messages tool on Sakai.

The GRC position is sponsored by the Office for Undergraduate Research (our.unc.edu), and you may be able to use this research-exposure course to meet a requirement of the Carolina Research Scholars Program (our.unc.edu/students/crsp/). I encourage you to visit the OUR website to learn about how you might engage in research, scholarship and creative performance while you are at Carolina

Peer mentors: You also have two undergraduate peer mentors this semester to help you with your research project. Emma Sims and Akhila Boyina have a deep understanding of methods used to assess learning, and will be especially good at helping you read primary research papers. Please take advantage of their expertise! You can contact them directly to make an appointment via the messaging tool on Sakai.

OTHER RESOURCES ON CAMPUS

The Writing Center is a wonderful resource to use if you need some help with your writing and editing skills, and The Learning Center would love to coach you – they have excellent coaching opportunities for things like time management, study skills, and goal setting. Give them a try!

If you experience difficulty during the semester that interferes with your ability to come to class or complete your work, including difficulty securing food or housing, or stress and mental health issues, I urge you to contact the Office of the Dean of Students (in person or by phone 919-966-4042) or Counseling and Psychological Services (in person or by phone 919-966-3658). If the Dean of Students is consulted, they can notify all of your instructors (for all of your classes) at your request. Their services are confidential. I also encourage you to please let me know if you see something that may indicate one of your classmates is in need of assistance. My hope is that we will be able to work together as a supportive community – so if you see something, please say something.

If you require an accommodation, please contact the Office of Accessibility and Resources. If you have accommodations to take exams at the Office of Accessibility Resources, please let me know as soon as possible.

COURSE REQUIREMENTS

Rationale
The quizzes, exams, assignments, and activities that you will complete in this class are carefully designed to optimize your learning. I use an evidence-based approach when designing classes. This means that I use learning approaches based on scientific evidence that demonstrates the effectiveness of these approaches.

Overall, my aim is to help you progress through Bloom's taxonomy of learning such that you are analyzing, evaluating, and creating information. Not only is this a lot more fun than memorizing, but you will also be more likely to retain the information!
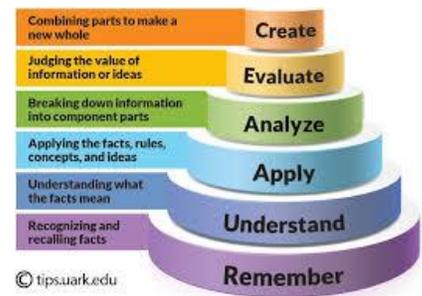
Quizzes
Online timed quizzes will be used as a study tool and to assess your learning. These quizzes will help you keep abreast of your reading for the class, and will help you determine if you took away key concepts from the reading. As you read your textbook, take notes in your own words to prepare for the quizzes. Quizzes are due *prior* to the relevant class, closing 1 hour before class begins. Quizzes will include multiple choice, true-false, and fill-in-the-blank questions. *Your lowest 2 quiz scores will be dropped so that you need not worry if you register late, forget to take a quiz, your computer crashes, you get sick, or you lose a wifi signal, etc. Because you can drop your two lowest scores, make up quizzes will not be administered.* **Tip:** Although you are allowed to use your textbook and notes when you take the online quizzes, I recommend that you do them without guidance. The quizzes are meant to serve as a diagnostic tool to help you determine if you understand what you read.

Class Assignments
For many classes, you will have small homework assignments to complete before you come to class (see Sakai) and/or you will work together in small groups on homework assignments, hands-on demonstrations and small projects. For many of these classes, you will hand in assignments for grading. The lowest 10% of your class assignments grade will be dropped. This makes it unnecessary to contact me when you miss an in-class assignment. Please be sure to consult with your classmates about what you missed if it is necessary for you to be absent. Excused absences will require documentation, and I should have advance notice of your absence whenever possible.

Exams
There will be 4 exams in total over the course of the semester, 3 will take place in class, and one will take place during the final examination period. Exams will consist of multiple choice questions, so please bring a scantron to your exams. Your best 3 test scores will go toward your final grade (i.e. you will be able to drop your lowest test score. **Because you will be able to drop your lowest exam score (excluding the final exam), make-up exams will not be administered under any circumstances.** Note that the final exam is weighted slightly more heavily than the mid-term exams, reflecting the fact that it will be cumulative. We are required to have our final exam on **May 3rd at 12pm**. If you have two exams at the same time or three exams within 24 hours and you want to reschedule, see an academic advisor for an exam excuse form. Please give me the pink copy of your exam excuse form on or

before our last lecture meeting. **The alternate exam date for this class is: May 7th at 8am.** You will have the opportunity to view graded exams. They will be available up until the next exam date.

CyberRat

The CyberRat activities will demonstrate procedures and phenomena of respondent and operant conditioning using the CyberRat Laboratory Simulation. It offers a practicum in the use of data to describe and interpret these phenomena. Your results will be presented in two short laboratory reports. These assignments will give you some hands-on experience with Pavlovian learning and shaping procedures, and will acquaint you with some basic methods for collecting, analyzing, and presenting data. Further details about this assignment will be discussed in class and are also available on Sakai.

Research project

You will conduct a Learning research project this semester in groups of 2-3. Your research project will address a question related to either Pavlovian or operant learning. Your group will come up with your own hypothesis and research design, you will collect and analyze data, and at the end of the semester, you will present your results during a poster session. You will have time to work on your research project during class time, but you should expect to need some significant time outside of class to complete this project. *Note: We will go over more complete instructions for this assignment in class. Be sure to meet with your GRC and your peer mentors throughout the semester for guidance.* This is a big project, and it is important that you exercise good time management skills to ensure you are successful!

GROUPS for the research project: You will be assigned to a group of 2-3 students that you will work with throughout the semester. Collaborating with others is an essential professional skill (every recommendation letter I write includes this information). You are all expected to contribute to your group's success in a professional manner. Dr. Penner is available to help you solve interpersonal problems, should they arise. As a group, you will come up with your own code of conduct. If any member of your group violates your code of conduct, the group has the option to fire that person for cause (e.g., submitting work late, failing to show up for work sessions, lack of communication, etc). Firing a group member involves a two-step process: First, the team (in consultation with Dr. Penner) gives the errant member a written warning, and the errant member then has an opportunity to respond to the warning (i.e., how they will fix the problem). Second, if the member continues to act unprofessionally, they will be terminated from the group. If a student is fired from their group at any point in the semester, they will complete the research project as an individual, starting from the beginning, and incurring late penalties if applicable.

*Please note: all written assignments must be written in your OWN words with appropriate citations. Quoting passages from your sources (yes, even in quotation marks) will result in a grade of 0. I am required by the University to report all instances of plagiarism or suspected plagiarism. If you are not sure how to paraphrase or avoid plagiarism, please come and see me. A PDF with information about to avoid plagiarism can be found on the Sakai site.

YOUR GRADE

Rather than having your grade ride on just a few high stakes exams and/or assignments, your grade in this course will be composed of a number of components to facilitate your learning.

Summary of grade calculation:

5% Class assignments

5% Quizzes (drop lowest 2 scores)

20% CyberRat assignments

30% Research project

25% Exams (drop lowest score)

15% Cumulative Final exam

Letter Grade Assignments

A = 94-100	C+ = 77-79	F = 0-59
A- = 90-93	C = 74-76	
B+ = 87-89	C- = 70-73	
B = 84-86	D+ = 67-69	
B- = 80-83	D = 60-66	

* Final grades are rounded (.4 down and .5 up). For example 89.4 = 89/B+; 89.5 =90/A-.

COURSE EXPECTATIONS

We are going to use a lot of class time engaging in active-learning activities (e.g. problem-solving, discussion, hands-on demonstrations). Using this approach means that you will need to make a significant effort to be an active learner. During class time, everyone will be required to contribute to discussions. Besides being fun, this approach will give you many opportunities in class to work through concepts that are giving you trouble.

> I expect that you will come to class prepared to work!

You can prepare for class by following these steps:

1. Complete the assigned readings and homework (when applicable) before coming to class.
2. Do the timed online quizzes to assess your reading comprehension.
4. Identify the concepts that you are having difficulty with so that you can work through these concepts with me and your peers. Please remember that I am here to help you succeed in this class, but there is only 1 of me and 45 of you! Use each other as a resource whenever you can! We are working as a team, and it is ok to not know something. However, I expect that you will put forth your best effort, always.

I expect that you will respect our learning environment and each other!

You may need to use a digital device during class time. Please be respectful of your classmates and restrict your use to course content. Hopefully it will never come to this, but if I have to, I will ask you to put your device away for the rest of the class, and you will forfeit your class assignment points for that day. Remember that you affect other students around you. It's likely that there will be times in class when you have completed your work, but your classmates have not – use this time to review your notes or ask questions before we move on. Even better: **help your classmates**!

I expect that you will show integrity and academic honesty, respecting the Honor Code, always!

As in all Carolina courses, the Honor Code is in effect. The work you submit in this class will be your own work. Observing the Honor Code also means that during exams, you will not look at another person's exam, or access information by other means such as talking to others, accessing the internet, or text/notes. Please report any violations that you observe. It is your responsibility to speak with your Professor if you are not sure what constitutes plagiarism or have any questions about the Honor Code. If you have not done so previously, please review the academic code at UNC at http://integrity.unc.edu/hc_handout.html. All suspected cases of academic misconduct must be reported to the Office of the Dean of Students, and thus I am compelled to do so if I suspect academic misconduct of any kind.

Finally, please do not post materials (notes, videos, slides, etc) from this class elsewhere without my permission.

A note from Dr. Penner...

I want you to succeed in this class! You belong here and deserve to be here! I teach several classes each semester, and often have several hundred students in any given semester. I encourage you to use the sign up tool on the course Sakai site to ensure you get some face time when you need it. I tend to get a lot of email, and I try my best to respond within 24 hours (M-F), but I am not always successful. If you send me a message (please use the 'Message' tool in Sakai) and if I do not respond, please politely send it again to remind me.

See you in class!

PSYC 222 Learning
Department of Psychology & Neuroscience
MWF 1:25-2:15pm
Peabody 218

SCHEDULE

Changes to the Schedule: I reserve the right to make changes to the syllabus, including the course schedule. If a change becomes necessary, I will announce this in class or by email. You should be checking your email frequently, at least once a day. If I have sent a message out via email, you are responsible for the information contained within that email. I will assign additional small tasks and assignments to keep you on track for group work – please check your email/Sakai for announcements.

Date	Topic or what we're doing in class	Reading and whatnot to complete before you come to class!	Cyber Rat
01-10	Introduction to class	1. Have a look at the syllabus 2. Complete Quiz 1.	
01-12	Learning to Change I	1. Study Chance Ch1 2. Complete Quiz 2	
01-15	No classes		
01-17	Snow Day		
01-19	Learning to Change II	1. Read Angier (2009) When 'What Animals Do' Doesn't Seem to Cover It (http://www.nytimes.com/2009/07/21/science/21angier.html) Read 'Defining Behavior' (PDF in resources folder on Sakai)	
01-22	The Study of Learning and Behavior	1. Study Chance Ch 2 2. Read Anthes (2013) Coldblooded Does Not Mean Stupid (http://www.nytimes.com/2013/11/19/science/coldblooded-does-not-mean-stupid.html) 2. Complete Quiz 3	1
01-24	Pavlovian Conditioning I	1. Study Chance Ch 3 (p 56-78) 3. Complete Quiz 4	2
01-26	Pavlovian Conditioning II	1. Study Chance Ch 3 (p 78-94) 2. Complete Quiz 5	3
01-29	Pavlovian Applications I	1. Study Chance Ch 4	4

		2. Read Jolly (2016) A Shocking Way (Really) to Break Bad Habits (https://well.blogs.nytimes.com/2016/05/02/a-shocking-way-really-to-break-bad-habits/) 3. Complete Quiz 6	
01-31	Pavlovian Applications II	1. Read Wimmer & Shohamy paper (found in resources folder on Sakai) – an in-class assignment will assess your reading comprehension for this paper	
02-02	Pavlovian Applications III	1. Read Robinson & Flagel paper (found in resources folder on Sakai) - an in-class assignment will assess your reading comprehension for this paper	
02-05	EXAM 1		
02-07	Group work: work on research project	1. From the research papers you have read, come up with two follow-up questions that you are interested in addressing. Submit on Sakai and bring these questions with you to class.	
02-09	Operant Learning: Reinforcement I	1. Study Chance Ch 5 2. Complete Quiz 7	
02-12	Operant Learning: Reinforcement II	1. Read the Forward to 'Don't Shoot the Dog' Pryor 2. Read Ch1 Reinforcement: Better than rewards (Pryor) 3. **CyberRat assignment 1 due**	
02-14	Portable Operant Research and Teaching Lab (PORTL): Clicker training exercises		
02-16	Reinforcement: Beyond Habit I	1. Study Chance Ch 6 2. Complete Quiz 8	5
02-19	Reinforcement: Beyond Habit II	1. Read Pryor Ch2 Shaping: Developing Super Performance without Strain or Pain	6
02-21	Portable Operant Research and Teaching Lab (PORTL): Clicker training exercises		
02-23	Group work: work on research project		
02-26	Schedules of Reinforcement	1. Study Chance Ch 7 2. Complete Quiz 9	7

02-28	Group work: work on research project		8
03-02	Portable Operant Research and Teaching Lab (PORTL): Clicker training exercises		
03-05	Group work: work on research project		
03-07	EXAM 2		
03-09	Portable Operant Research and Teaching Lab (PORTL): Clicker training exercises		
03-12	Spring Break!		
03-14	Spring Break!		
03-16	Spring Break!		
03-19	Group Work: work on research project		
03-21	Operant Learning: Punishment I	1. Study Chance Ch 8 2. Complete Quiz 10	
03-23	Operant Learning: Punishment II	1. Pryor Ch4 Untraining: Using Reinforcement to Get Rid of Behavior You Don't Want 2. **CyberRat assignment 2 due**	
03-26	Operant Applications I	1. Study Chance Ch 9 2. Complete Quiz 11	
03-28	Operant Applications II	1. Read Pryor Ch5: Reinforcement in the Real World	
03-30	No classes		
04-02	Group work: work on research project		
04-04	Observational Learning	1. Study Chance Ch 10 2. Complete Quiz 12	
04-06	Generalization, Discrimination, and Stimulus Control I	1. Study Chance Ch 11 2. Complete Quiz 13	
04-09	Generalization, Discrimination, and Stimulus Control II	1. Read Pryor Ch3 Stimulus Control: Cooperation without Coercion	

04-11	Group work: work on research project		
04-13	EXAM 3		
04-16	Forgetting	1. Study Chance Ch 12 2. Complete Quiz 14	
04-18	The Limits of Learning	1. Study Chance Ch 13 2. Complete Quiz 15	
04-20	Research poster presentations	1. **Posters due**	
04-23	Research poster presentations		
04-25	Course evaluations, wrap-up		
05-03	Final Exam at 12pm		