

Learning Processes

Spring 2018 – Christine Yohn



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When and Where: Tue/Thu, 1:40-3:00 PM, in SEC 111 (Busch campus)

Textbook: The Principles of Learning and Behavior, 7th Edition. By Michael Domjan (2010; 2015) (Other versions of the book also do the trick)
** You can purchase this text as an eBook online at www.cengagebrain.com for \$30**

Office hours: By appointment or if you can catch me inside the Psychology Building
(For simpler questions, send me an email or ask during class)

Course Description

This course is designed to introduce you to the science of behavior through exploring the acquisition, storage, and expression of learning at the behavioral level. How do we study behavior across different species? How can we understand the causes of behavior? Research in behavioral psychology has helped us understand the complexity of behavior with the establishment of tools and techniques that reveal the relationship between behavior to innate processes, learning processes, and motivational processes.

Course Aims and Outcomes:

In taking pre-requisite courses (i.e. psychology, neuroscience, biology, etc.) you already have a fundamental understanding of how the brain works. This course will expand your existing knowledge and offer insight on how the brain connects what we *experience* with how we *behave*. We will discuss at length the field of behavioral psychology and the importance of this field in understanding real-world scenarios in education, mood related disorders, sports, addiction, learning and memory, intelligent machines, and the list goes on.

Specific Outcomes:

- Understand different ways in which learning occurs
- Develop understanding of how aspects from our natural environment shape our behavior
- Develop the ability to think logically and analytically about behavior and why/how it changes
- Understand how deficits in learning processes as components in psychiatric and neurodegenerative disorders

- Develop an appreciation for research using animals that helps us better understand biological basis of behavior and its relationship to human behavior
- Learn how to evaluate peer-reviewed articles critically to support your ideas
- Develop an appreciation of historical and modern approaches to our understanding of basic learning processes
- Apply content discussed in class to real-life scenarios, discussions, and study habits

Attendance and Participation:

While attendance to lectures is not mandatory, it is highly recommended since material discussed in lecture is not covered in your textbook. Additionally, if you do not come to class you will not do well on exams or quizzes, since quiz questions are not posted on Sakai, instead at the end of randomly selected lectures.

I encourage you to ask questions, discuss experiments, ideas and your stance on the essay paper openly. Discussions will make this class that much better and if you have a question about something most likely other students in the class have a similar question. We all have ideas of how the world and universe as well as our brain and behavior work, so discussions in this class will focus on “HOW” and “WHY.” This course assumes a biological basis of behavior, with a core idea being that the processes of the mind that control behavior are based in biology of the body and brain.

Please do come and see me if you want to talk about the topics covered in class, or if something didn’t make sense in lecture. You can contact me by email: cy253@scarletmail.rutgers.edu to set up an Office Hours appointment. Before office hours prepare questions and/or email me the questions ahead of time so I can be prepared to help you out. Additionally, Dylan (the TA) will be available to answer questions and review topics discussed in class.

Grading

Exams: There will be 3 exams (2 midterms and a final) that will test your critical thinking skills, not retention/memorization of facts. To do well on the exams you need to understand the material and the concepts discussed in class. Exams will be multiple choice and will cover material discussed in class. The final exam will be cumulative. Topics covered in the text book, but not in class, will not be on the exam.

Make-up exam policy: You need to provide both 1) advance notice of your absence to me (via email) and 2) acceptable documentation for the absence (e.g., doctor’s note, death notice, obituary, funeral notice, police report etc.). If both of these criteria are not met you will not be permitted to take a make-up exam. The make-up exam will include a combination of both multiple choice and essay style questions.

Quizzes: Since I will not be accounting for attendance, quiz questions will be posted during random lectures, with responses to the questions answered on Sakai. At the end of lecture quiz questions will be posted and it is your responsibility to write down the questions and possible answer choices. You will have 24 hours (after the class the quiz questions were posted in) to answer the questions. For instance, if questions are posted during Thursday’s lecture you will have until Friday at 3:00 p.m. to answer on Sakai. There will be a total of 10 quizzes throughout the semester.

Essay: Throughout this course you will learn about various learning processes and rules. For the purpose of this essay you are to select a learning process and/or rule and discuss it at length. Be

sure when discussing the learning process, you bring in real-life examples of it. For instance, if you wanted to write an essay on memory, you would have to include experiments that explored different types of memory (i.e. spatial vs working memory). The paper is to be a minimum of 10 pages' double spaced with a minimum of 10 different peer reviewed articles cited (textbook doesn't count). Within the essay be sure to define key terms, discuss the relevance of S-S learning vs. S-R learning to your topic and brief history of the learning process and/or rule (e.g. discussing key persons). You will be graded on the organization of your paper, adhering to APA format (citations), discussion of topics.

Grade calculation

The maximum total is 300.

Assignment	Maximum Points
Exam 1	50
Exam 2	50
Final Exam	100
Quizzes	25
Essay	75

Points needed for each grade

To keep track of your performance, think in terms of points below the maximum. In other words, if you are wanting to achieve an A in this course the loss of 30 or more points among all assignments will not make an A attainable. A friendly reminder a grade is not given to you; it is something you earn.

Grade	Points	Percentage
A	270-300	90-100%
B+	255-269	85-89.9%
B	240-254	80-84.9%
C+	225-239	75-79.9%
C	210-224	70-74.9%
D	180-209	60-69.9%
F	0-179	0-59.9%

*A piece of advice: If you seek to do extra work in order to get a higher grade do it throughout the semester, not after it is over! Attend class, complete all assignments, study hard, ask questions and become engaged.

** Extra credit may be given at some point in the course (during class), but it is not guaranteed.

Additional Stuff

Academic Dishonesty: This matter is taken very seriously, so please do yourself the favor and don't try it. Discussion of ideas and concepts with your peers is welcomed, but responses on quizzes, exams, and the written essay must be your individual work. A **ZERO** will be given if there is reason to believe that any part of your work is not your own. Cheating and plagiarism will not be taken lightly and could even result in automatic failure of the course as well as result in University disciplinary action. All writing assignments **WILL** be rigorously checked for plagiarism and submitted via TurnItIn.com.

Late Assignments: Quizzes will not be able to be made up. If the essay is not due before class on its due date it will be considered **LATE** no exceptions! Submitting your work any time after this on the same day will result in a 10% deduction. Each day after will result in a further 20% penalty. Late essays will have to be submitted via email. Essays will not be accepted after a week past the due date.

Accommodations

Appropriate accommodations are available for students with disabilities. In compliance with the Rutgers University policy and equal access laws, I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first two weeks of the semester, unless for unusual circumstances, so arrangements can be made. Students are encouraged to register with the Office of Disability Services to verify eligibility for appropriate accommodations and to provide me with documentation. Please see web site of the [Office of Disability Services for Students](https://ods.rutgers.edu/) (<https://ods.rutgers.edu/>) for more information.

Academic Integrity (amended from summer 2017 syllabus: Kaisa Bieszczad 830:311 Learning Processes)

Each student in this course is expected to abide by the Rutgers University Code of Student Conduct and Academic Integrity Policy. Any work submitted by a student in this course for academic credit will be the student's own work. Collaboration in this course is allowed in the following instances: *research strategies, peer-review of drafts of essay, or other instances based upon special requests and my approval.*

Since quizzes are out-of-class, working together on these quizzes is forbidden. Answering quiz questions should be your own work. Should copying occur, both the student who copied work from another student and the student who gave material to be copied could both automatically receive a zero for the 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. The risk really isn't worth it.

And visit <http://academicintegrity.rutgers.edu/resources-for-students> for info and useful links.

During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any

collaborative behavior during the examination will result in failure of the exam, and may lead to failure of the course and University disciplinary action.
 In short: Do not cheat! Do not plagiarize!

Course Schedule (dates are subject to change)

Week	Date	Topic	Book Chapter
1	January 16th	Introduction of the course	Chapter 1
		Importance of the Brain and empirical analysis of learning and memory	
	January 18th	Nature vs Nurture; Elicited Behavior, Habituation, Sensitization	Chapter 2,
2	January 23rd	Elicited Behavior, Habituation, Sensitization; Classical Conditioning	Chapters 2, 3
	January 25th	Classical Conditioning & Inhibitory Pavlovian Conditioning	
3	January 30th	S-R vs S-S learning; Contingency and the R-W model	Chapter 4
	February 1st	Formal Models of Learning	
4	February 6th	Instrumental Conditioning: Approaches and Procedures	Chapter 5
	February 8th	Discuss Essay Assignment; <i>Exam Review</i>	
5	February 13th	Exam 1 (Tentative)	Chapters 5
	February 15th	Instrumental Conditioning: Fundamental elements	
6	February 20th	Schedules of Reinforcement: Simple Schedule & Choice Behavior	Chapter 6
	February 22nd	Schedule of Reinforcement	
7	February 27th	Different Interpretations of Instrumental Conditioning	Chapter 7
	March 1st	Instrumental Conditioning: Theories	
8	March 6th	Stimulus Control of Behavior	Chapter 8
	March 8th	Stimulus Control of Behavior: Learning Factors & Contextual Cues	
	March 13- 15th	Spring Break – No Classes	
9	March 20th	Extinction of Conditioned Behavior	Chapter 9
	March 22nd	Extinction of Conditioned Behavior	
10	March 27th	Essay Workshop day; <i>Exam Review</i>	
	March 29th	Exam 2 (Tentative)	
11	April 3rd	Aversive Control: Approach vs Avoidance	Chapter 10
	April 5th	Aversive Control: Approach vs Avoidance	
	April 10th	<i>NO CLASS – Use this time to work on your essay</i>	
12	April 12th	Working & Reference Memory; Memory Mechanisms	Due on Sakai Essay Chapter 11
13	April 17th	Memory Failure & Memory Updating	Chapter 11

Week	Date	Topic	Book	Chapter
	April 19th	Comparative Cognition		Chapter 12
14	April 24th	Comparative Cognition		Chapter 12
	April 26th	Last Day of Class		

*Final Exam check the Rutgers academic calendar to determine when final exam for this class is