

PSCH 360 - LEARNING AND CONDITIONING

Fall 2020

CRN: 31168

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REQUIRED TEXT: Frieman, J., and Reilly, S. (2016). *Learning: A Behavioral, Cognitive, and Evolutionary Synthesis*. Sage Publications.

Student Resources: <https://study.sagepub.com/frieman>

Prerequisite: Grade of C or better in PSCH 242.

Pavlovian and operant conditioning are two fundamental forms of learning. Pavlovian conditioning is concerned with prediction whereas operant conditioning allows personal control in the achievement of goals and needs. Together, both forms of learning help us to determine the causal structure of our environment. Learning and conditioning phenomena and procedures have contributed and influenced many areas of relevance to psychology undergraduates, including evolution of cognition and intelligence, social psychology, behavioral neuroscience, drugs and behavior, behavioral medicine, motivation and emotion, rehabilitation training, special education, infant cognition, developmental psychology, psychopathology and clinical psychology. The purpose of this course is to introduce the basic findings, concepts and principles of learning and conditioning that govern the acquisition of knowledge in human and nonhuman animals. We will focus on the two basic forms of associative learning: Pavlovian conditioning and operant conditioning.

TENTATIVE CLASS SCHEDULE

Week	Topic:Lecture	Homework (read before watching lecture)
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1	Course Introduction and Organization	
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PART I: PAVLOVIAN CONDITIONING - FOUNDATIONS

	1:1+2 Issues in Learning and Conditioning	Chapter 1
2	2:1 Pavlov's Classic Experiment	pages 37-44 Video 1
	2:2 Basic Pavlovian Procedures	pages 45-50
3	2:3 Conditioned Emotional and Immune Responses	pages 50-62 Video 2
	2:4 Conditioned Drug Effects	pages 62-65

4	2:5 Signtracking and Conditioned Taste Aversion	pages 65-79 Videos 3,4,5
	3:1 Causal Inference and Constant Conjunction	pages 81-92
5	3:2 Contiguity and Precedence	pages 96-107

September 24 EXAM 1

PART II: PAVLOVIAN CONDITIONING - MECHANISMS

6	4:1 Salience to Relative Validity	pages 109-122
	4:2 Surprise and Blocking	pages 122-126
7	4:3 Rescorla-Wagner Model	pages 126-139
	5:1 Representation of Knowledge and Transitive Inference	pages 141-160
8	5:2 Conditioned Inhibition, Context, Time, Extinction	pages 160-179
	6:1 Nature of the Conditioned Response and Behavioral Systems	pages 181-195
9	6:2 Functions of the Conditioned Response	pages 195-211

October 22 EXAM 2

10 NO CLASS: Society for Neuroscience Convention

PART III: OPERANT CONDITIONING – FOUNDATIONS and MECHANISMS

11	7:1 What is Operant Conditioning?	pages 215-233 Videos 6,7,8
	7:2 Reinforcers and Contingencies	pages 233-263
12	7:3 Learned Helplessness	269-276
	8:1 Functions of Reinforcers, Hill-Climbing and Differentiation	279-297, 302-303
13	8:2 Partial Reinforcement and Behavioral Persistence	305-320, 327-333
	9:1 Causal Inference and Representation of Knowledge	pages 375-392
14	NO CLASS: Thanksgiving	

December 3 EXAM 3**LECTURES**

Due to the ongoing pandemic, the administration has mandated that classes with more than 50 students must be taught online.

Because this is now an online course, Blackboard will be used extensively for posting lectures, administering tests, and for discussion boards for student questions. Lectures for the class will be recorded and posted (on a weekly basis) to Blackboard and will be made available to you on Blackboard every Sunday at 11:59pm. Due to the absence of any form of interactions, the recorded lectures are very much shorter than the corresponding in-class presentations. This might seem to present an opportunity to lengthen each recorded lecture by including additional material not usually included during in-class lectures for this course. However, to ensure parity with past and future years we believe it appropriate and fair that lectures should cover the same amount of material irrespective of the presentation medium. Thus, additional material has not been added and it is of utmost importance that you read the assigned homework chapters. **If at any time you have trouble accessing any of the material on Blackboard it is your responsibility to contact me or the TA immediately. To avoid any future conflicts or issues, it is recommended to download and open every week's material as soon as you can to ensure that you can access it. Additionally, it is highly recommended that you work to a regular timetable and do not wait until exam week before listening to the lectures and reading the homework chapters.**

ACADEMIC INTEGRITY

Below are the guidelines for academic integrity from the Student Handbook at the University of Illinois at Chicago. As an academic community, the University of Illinois at Chicago is committed to providing an environment in which research, learning, and scholarship can flourish and in which all endeavors are guided by academic and professional integrity. All members of the campus community -- students, staff, faculty, administrators -- share the responsibility of ensuring that these standards are upheld so that such an environment exists. Instances of academic misconduct by students, and as defined herein, shall be handled pursuant to the Student Disciplinary Policy.

Academic dishonesty includes, but is not limited to:

Cheating: Either intentionally using or attempting to use unauthorized materials, information, people, or study aids in any academic exercise, or extending to or receiving from any other person any kind of unauthorized assistance in any examination or assignment.

Bribes, Favors, Threats: Bribing or attempting to bribe, promising favors to or making threats against, any person, with the intention of affecting a grade, record of a grade, or evaluation of academic performance any conspiracy with another person who then takes or attempts to take action on behalf or at the direction of the student.

Examination by Proxy: Taking or attempting to take an exam for someone else other than the student is a violation by both the student enrolled in the course and the proxy or substitute.

In fairness to the vast majority of students who take their college career seriously, no form of cheating will be tolerated in exams. **Anyone cheating in an exam will receive 0 points for that exam.**

Using LockDown Browser for Online Exams & Quizzes

This course requires the use of LockDown Browser for online exams and quizzes. Please watch this short video to get a basic understanding of LockDown Browser and the webcam feature which is required for all exams and quizzes.

- <https://web.respondus.com/lockdownbrowser-student-video/>

Then download and install LockDown Browser from this links:

- <https://download.respondus.com/lockdown/download.php?id=344933365>

To take an online exam or quiz, start LockDown Browser and navigate to the exam (you will not be able to access the exam with a standard browser). For additional details on using LockDown Browser, review the student quick start guide.

Finally, when taking an online exam or quiz, these guidelines must be followed:

- Select a location where you will not be interrupted
- Before starting an examination, know how much time is available for it, and that you've allotted enough time to complete it
- Turn off all mobile devices, phones, etc. and do not have them within reach
- Clear your area of all external materials – books, papers, other computers, or devices
- Remain at your desk/workstation for the duration of the test
- LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

POLICIES

There will be 3 exams each containing 40 multiple-choice questions (each correct answer = 2.5 points). Each exam is therefore worth 100 points (300 points total for 3 exams), based on material covered in lectures and from the assigned readings. The lectures will highlight only some of the information covered in the text while going into greater detail on other topics. **To succeed in this class - and I want you to succeed - you should read the assigned homework and listen to the lectures. Lecture handouts will be posted on Blackboard and it's a good idea to download the relevant handout before the lecture and add your own notes to the handout during the lecture.**

The 3 exams will be administered via Blackboard and you will have 75 minutes to complete an exam once you begin. Exams are scheduled on Thursdays and you will have a 4-hour window of time in which to take the exam. **All students in this class will have the opportunity to vote for a 4-hour time window (the start time for an in-class exam is usually 2:00 pm). A doodle poll will be sent out during the first week of class and you will have one week to cast your vote.** If you do poorly on an exam, please schedule an appointment with me to identify any problem areas with a view to helping you to improve your performance on the next exam. Final grades will be assigned as follows:

- A = 240 or more points**
- B = 210 or more points**
- C = 180 or more points**
- D = 150 or more points**
- F = Below 150 points**

No make-up exams will be given except for the most serious of documented circumstances. A request for a make-up exam will only be considered if accompanied with a written note (including phone number) from a physician. Make-up exams must be taken within one week of the scheduled exam

otherwise a score of zero points will be recorded for that exam. It is the student's responsibility to ensure that a make-up exam is taken.

Extra credit: There will be 3 opportunities (one prior to each exam) to obtain 5 points of extra credit (thus 15 points overall) via online quizzes. For each quiz, 5 multiple-choice questions will be administered via Blackboard. Scores on the quizzes will be structured such that if you earn 3 or more correct answers on a given quiz you will receive the full 5 points; if you score less than 3 correct, that score (0, 1, or 2) will be entered in the grade book. Thus, it is to your advantage to study carefully for all of the quizzes because if you can score at least 3 correct on each of the three quizzes, the full 15 points of extra credit will be added to your final grade. In addition, these quizzes give you the opportunity to gain experience with multiple-choice questions in advance of the exams and to identify areas for improvement. To benefit from the quizzes, it is best to approach them under exam conditions (i.e., to work in the absence of notes and the book). Please note that you must work alone on the quizzes and that the academic integrity policy for exams, as set out above, will also be applicable to the quizzes. You will have 10 minutes to complete the quiz once you begin. Each quiz will be scheduled on the Thursday 1 week prior to the corresponding exam and you will have a 1-hour time window in which to take the quiz.

Disability Resource Center: UIC is committed to full inclusion and participation of people with disabilities in all aspects of university life. Students who face or anticipate disability-related barriers while at UIC should connect with the **Disability Resource Center (DRC)** at drc.uic.edu, drc@uic.edu, or at **(312) 413-2183** to create a plan for reasonable accommodations. In order to receive accommodations, students must disclose disability to the DRC, complete an interactive registration process with the DRC, and provide me with a Letter of Accommodation. When in receipt of a Letter of Accommodation I will work with the student and the DRC to implement approved accommodations.

If you have any problems or concerns throughout the class, we (myself and the TA) are here to help you. Please come and see us during office hours (by making an appointment) before it's too late at the end of the semester. We are interested in your success in this class.