Instructor

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Goals and organization

This class covers research and theory in the field of Learning. The main goal is to help you reach a deeper understanding of the theories and principles of learning and behavior so that you can use them in your lives and in your future professional activities. For example, the material covered in this course is used by professionals working in clinical psychology and in behavioral neuroscience. A second goal is to appreciate how knowledge has accumulated in the field. For example, we will see how good theoretical ideas are carefully based on evidence, how they guide experimental research, and how the new evidence created by that research (which is often surprising) generates a new and better understanding. I am active in the field and am interested in discussing its connections with other parts of psychology.

The course tells a kind of story that will build through the semester. We will start with some basic facts about Pavlovian learning and operant conditioning: what they are, why psychologists study them, and why they are so indispensable to living organisms. We will then build on this foundation by discussing several theories of Pavlovian learning (which is viewed as both a method for studying learning in general as well as a powerful behavioral phenomenon). We will wonder how generally applicable the theories really are and how they help us understand the world outside the lab. We will then tackle operant learning (which is viewed as a method for understanding voluntary behavior) and ultimately consider the basic cognitive and motivational processes behind it. At the end of the course, we will put it all back together in a kind of synthesis that will hopefully help you integrate and remember the material.

I am going to try something new this year. More than just a content area, Learning Theory provides a set of tools that helps us understand many behavioral issues and problems in the real world. This semester, I would like to try to illustrate and explore this idea by pausing every once in a while to discuss the possible implications of Learning Theory for understanding overeating and obesity. As you know, this is an enormous and growing public health problem. To pursue the issue, there will be several class meetings devoted to the presentation and discussion of papers from the literature that discuss learning theory in the context of appetite and overeating. The course is actually divided into five 6-day units, each of which involves four lectures, a discussion meeting, and a quiz. The lectures will cover and expand on material in the textbook. The discussions will be focused on the supplemental readings; students will present the papers and help lead the corresponding discussions. It is very important that you do the required reading before each lecture and discussion class. The quizzes at the end of each unit break the course into meaningful “chunks” and will help keep everyone up to speed. (Memory is also best with frequent testing.) The quizzes will only cover material presented and discussed since the last quiz.
Readings

Text


Supplemental Readings (available on Blackboard)

*February 1:*

*February 22:*

*March 15:*

*April 5:*

*April 26:*
Class meetings
Please do the required reading before each class; class discussion depends on it.

1/18  Introductions and a short history of the field. Chap 1 (all).
1/20  Some basics and the function of operant and Pavlovian learning. Chap 2 (all)
1/25  Some nuts and bolts of conditioning. Chap 3: pp. 73-93
1/27  Surprise, information value, and conditioning. Chap 3: pp. 93-100

2/1  Discussion of Swithers and Davidson (2008) and Epstein et al. (2008).
2/3  Quiz 1

2/8  The Rescorla-Wagner model. Chap 4: pp. 103-116


2/22  Discussion of Epstein et al. (2009) and to-be-distributed discussion questions.
2/24  Quiz 2

3/3  Role of conditioning processes in drug dependence and anxiety disorders

3/7-3/11  SPRING BREAK


3/22  Flavor aversion learning: Are the laws of learning general? Chap 6 (all)
3/24  Quiz 3

3/31  Choice and theories of reinforcement. Chap 7: pp. 239-264

4/5  Discussion of Epstein et al. (2010) and Volpp et al. (2008).
4/7  How stimuli guide instrumental action: Categorization and generalization. Chap 8: pp. 267-292

4/12  How stimuli guide instrumental action 2: the cognition of time and space. Chap 8: pp. 292-327
4/14  Quiz 4


4/26  Discussion of Hogarth et al. (2007) and Berridge et al. (2009).

5/3  A synthetic view of learning and behavior. Chap 10: pp. 400-419
5/12  (1:30 p.m., the scheduled exam period) Quiz 5

Student responsibilities

1. Attendance at all class meetings is **required**. Class participation will count toward 10% of your grade. Although a lot of active participation will take place during the designated class discussions, student questions and interaction are always welcome and can help everyone in the class understand the material. Moreover, I hope to end several lecture meetings with a discussion of the material presented in that day’s lecture. It is therefore important that you do the assigned reading before each class so that you can contribute. **Please take this responsibility seriously and help me make this an excellent class.**

2. There will be five quizzes containing multiple choice and short essay questions. The quizzes will not be cumulative; they will focus on material covered since the preceding quiz. You will have the entire 75-min class period to take them. The last quiz (Quiz 5) will be given during the scheduled exam period on May 12. Each quiz contributes 15% to your grade (and thus a total of 75%). There will be no make-ups except under extreme circumstances and with advanced notice.

3. You will be required to present (with a team of 2 or 3 other students) **one** paper from the supplementary readings (above) and then lead a discussion on it. I want you to assume the teacher’s role and lead the class for 30 min. Each team will prepare a Powerpoint presentation and e-mail it to me 24 hours before the scheduled presentation. Your presentation will be worth 15% of the course grade. I will distribute tips and guidelines for creating a good presentation within the first two weeks of class.

**Please remember:** This is a 200-level course, the most advanced level available to undergraduates at UVM. I hope you will find it enjoyable and rewarding. But what you get out of the course will depend on what you put into it. As I said before, **please take your responsibilities seriously and help make this an excellent class.**

Three suggestions for success:

1. Stay up to date on the material and come to class with questions. I will set aside the first few minutes of each class to address questions on the reading or material from previous lectures.

2. Visit me during my office hours, which I will announce by the end of the second week of the semester. You can also call or e-mail me and make an appointment.

3. Consider reviewing the practice questions available on the website the publisher has created to support the book. **Note, though, that I did not write these questions, and that they bear no relation to the official course quizzes!**

To access the practice questions:

1. Go to the book’s companion site: www.sinauer.com/bouton
2. Click “Quiz” in the list of chapter-specific resources that appears.
3. Click “Register.”
4. Enter your instructor’s email address (mark.bouton@uvm.edu) and click “Submit.”
5. Follow the instructions to create an account.

Once registration is complete, you can take a practice quiz immediately by going back to the quiz page and clicking “Login.”