Learning  
PSYC 420  
Winter 2013  
Olds-Upton Room 412  
11:50 a.m.-1:05 p.m. MWF

Dr. Robert Batsell  
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Office Hours: 10:00-11:00 MWF (or by appointment)  
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Teaching Assistant: Rory Landis  
Contact Information:

Required Texts:  

Assigned readings (see page 7)

I. COURSE SUMMARY  
Historically, scientists and philosophers have attempted to identify the most basic units of our universe. A physicist might try to isolate an electron or a proton, the chemist hopes to find a pure chemical element, but does the psychologist have a similar mission? Yes, in all fields of psychology, the goal of the experimenter is to reduce behavior to its simplest form; in the area of learning, the psychologist attempts to identify the basic units of learning, the simple association. Adult humans frequently forget how basic learning processes underlie all of our complex behaviors. For instance, learning that touching a hot stove will burn your hand, or that eating bad fish will make you sick, or that a yellow light signals the impending change to a red light are all examples of simple learning processes such as classical conditioning and instrumental conditioning. The goal of this class is to re-introduce students to basic learning processes. Although most of psychology is based on the complexities of human behavior, as the previous examples demonstrate the area of learning is based upon the association between an antecedent and its consequence. We will spend the semester discussing how organisms (both humans and animals) learn that Event 'A' becomes associated with Event 'B'. We will discuss the factors that promote the formation and retention of this A-B association and various theories that attempt to explain how organisms learn about their environment. Furthermore, throughout this course we will see how our understanding of basic learning processes (either in humans or animals) can be used to provide practical and clinical solutions to complex human problems, and a better picture of the variety of learning systems available to humans.
II. GRADING

There will be a total of 500 points in this class.

- 90% and above (450 and up total points) = A
- 80% and above (400-449 total points) = B
- 70% and above (350-399 total points) = C
- 60% and above (300-349 total points) = D
- below 60% (below 300 points) = F

A. Exams: There will be a total of three exams. Two tests will be given during the quarter and the third (the non-cumulative final exam) will be given when the final is scheduled. Each exam date is marked on the accompanying class outline and will be given on that day. Each exam will consist of multiple-choice and short-answer questions. Short-answer questions require a few paragraphs and any necessary diagrams/graphs. Each of the exams will be worth 100 points.

B. Sniffy Assignments: Throughout the quarter, students will be required to complete 6 Sniffy units. Four of the Sniffy units are worth 20 points and the other two are worth 10 points. These reports are worth a total of 100 points. See page 6 of this syllabus for specific Sniffy reports.

C. Written Assignments: An additional 100 points (spread across 7 or 8 assignments) will come from various in-class experiments and discussion questions. For the discussion questions, groups of students will be responsible for generating discussion questions over the assigned readings and then leading a subsequent class discussion.

III. ACCOMMODATIONS

A. Student Athletes. Student athletes who have College permission to miss classes or tests need to inform the instructor before they miss the assignment.

B. Cultural/Religious Holidays. Kalamazoo College provides reasonable accommodations for observing religious or cultural holidays (such as Yom Kippur, Martin Luther King Day, Easter, Cinco de Mayo). Students can be excused from class to participate in these religious/cultural activities, but they will be responsible for getting all assignments and turning in course work. Each student is responsible for contacting the faculty member in a timely manner to arrange for appropriate accommodations.

C. Students with Disabilities. Kalamazoo College provides reasonable accommodations for students with disabilities. It is the student's responsibility to contact the office of the Dean of Students/Dean Karen Joshua-Wathel in a timely manner to arrange for appropriate accommodations.
IV. CLASS RULES.

A. Honor System. This course will operate in accordance with the Kalamazoo College Honor System: a responsibility for personal behavior, independent thought, respect for others, and environmental responsibility. Students who are caught cheating or plagiarizing will receive a zero for that assignment, will be referred to Student Services, and may fail the class. Students who download papers or any information from the Internet without citing the source may receive an F in this course.

B. Attendance. Attendance will not be taken in this class; but students are expected to attend the scheduled classes. Many of the test questions will come from class lectures and are not in the book. It should be noted that students who have been successful in this class in the past have adopted the strategy of reading the book prior to lecture, attending the lecture, and then rereading the text over the corresponding material.

C. Classroom Behavior. The Kalamazoo College Honor Code applies to classroom behavior as well as other types of interpersonal interactions on campus; “respecting others” includes respectful behavior in class. Although Kalamazoo College is committed to respecting fundamental principles of freedom of speech, including even controversial positions taken in class, all types of speech and behavior must be balanced with principles of appropriate classroom behavior. It is ultimately the faculty member who controls the classroom, and if a situation develops in which, in the opinion of the faculty member, the class is being disrupted, the faculty member has the ultimate right to ask a student to leave the class. Longer-term solutions to these problems will be dealt with according to College procedures.

Also, the presence of electronic devices is distracting to the professor and other students. Cell phones should be silenced before class and in-class texting may be met with sarcasm and ridicule.

D. Make-up Policy. If you know that you are going to miss an assignment (test or paper) for any reason, it is the responsibility of the student to contact the professor BEFORE the assignment is due. Makeup assignments may not be given if prior warning (and the professor’s consent) has not occurred.
SECTION 1: INTRODUCTION TO BASIC TYPES OF LEARNING [2 MEETINGS!]

**Week 1**

Jan 7 (Mon)  Introduction to Learning I

Jan 9 (Wed)  Introduction to Learning II: Non-associative Learning

Jan 11 (Fri)  Introduction to Learning III: Ethics of Animal Research


**Week 2**

Jan 14 (Mon)  Introduction to Classical Conditioning I

Jan 16 (Wed)  Introduction to Classical Conditioning II


Jan 18 (Fri)  Introduction to Classical Conditioning III


**Week 3**

**Jan 21 (Mon)** ***Martin Luther King Day –No Class****

Jan 23 (Wed)  Conditioned Inhibition

Jan 25 (Fri)  Clinical Applications of Classical Conditioning

**Week 4**
Jan 28 (Mon) Clinical Applications of Classical Conditioning [Group Work]


Jan 30 (Wed) ***TEST #1***
SECTION 2: MECHANISMS/ASSOCIATIONS OF CLASSICAL COND.

Week 4
Feb 1 (Fri)   Associations in Classical Conditioning I

Week 5:
Feb 4 (Mon)   Associations in Classical Conditioning II
Feb 6 (Wed)   Formal Models of Classical Conditioning I

Feb 8 (Fri)   ***WINTER BREAK: NO CLASS***

Week 6:
Feb 11 (Mon)  Formal Models of Classical Conditioning II
Feb 13 (Wed)  Synergistic Conditioning


Feb 15 (Fri)  Classical Conditioning Application: Foods

Week 7:
Feb 18 (Mon)  Classical Conditioning Application: Drugs


Feb 20 (Wed)  Stimuli in Absentia [Group Work #2]


Feb 22 (Fri)   ***TEST #2***
SECTION 3: ANALYSIS OF INSTRUMENTAL CONDITIONING

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<thead>
<tr>
<th>Week 8: Feb 25 (Mon)</th>
<th>Introduction to Instrumental Conditioning I</th>
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<td>Feb 27 (Wed)</td>
<td>Introduction to Instrumental Conditioning II</td>
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<tr>
<td>March 1 (Fri)</td>
<td>Responding for Appetitive and Aversive Reinforcers I</td>
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| Week 9: |
| March 4 (Mon) | Responding for Appetitive and Aversive Reinforcers II |
| March 6 (Wed) | Responding for Appetitive and Aversive Reinforcers III |
| March 8 (Fri) | Theories of Instrumental Conditioning I |

| Week 10: |
| March 11 (Mon) | Theories of Instrumental Conditioning II |
| March 13 (Wed) | Applications of Instrumental Conditioning I [Group Work] |
| March 15 (Fri) | Applications of Instrumental Conditioning II: Behavioral Therapy |

**TEST #3/ FINAL EXAM:**
Sniffy Lab Exercises

I. CLASSICAL CONDITIONING EXERCISES

Assignment #1 (20 Points):
Exercise 1: Basic Acquisition
Exercise 2: Extinction
Exercise 3: Spontaneous Recovery
NOVEL EXPERIMENT: Reacquisition
Exercise 4 Varying the Strength of the CS
Exercise 5: Varying the Strength of the US
*Note: For this assignment, your report only needs to include Exercises 1-Novel Experiment

Assignment #2: (10 Points)
Exercise 10: Inhibitory Conditioning
Exercise 11: Inhibitory Conditioning by Summation

Assignment #3: (10 Points)
Exercise 6: Compound Conditioning
Exercise 7: Blocking
Exercise 8: Overshadowing

Assignment #4 (20 Points)
Nature of the Association in C.C./Ch. 11
Exercises 14-18
*Note for this assignment, conduct all of the exercises, but ONLY include 17 and 18 in your lab report.

II. INSTRUMENTAL CONDITIONING EXERCISES

Assignment #5: (20 Points)
Basic I.C. Chp 3  Exercises 22-27
Schedules of Reinforcement Exercises 32-36
*Note for this assignment, conduct all of the exercises, but ONLY include 32-36 in your lab report.

Assignment #6: (20 Points)
Stimulus Discrimination & Stimulus Generalization Chp. 13
*Note for this assignment, conduct all of the exercises, but ONLY include the methods and results from the comparisons of the 3 generalization gradients in your lab report.