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 550 points in this class.

- 90% and above (495 and up total points) = A
- 80% and above (440-494 total points) = B
- 70% and above (385-439 total points) = C
- 60% and above (330-384 total points) = D
- below 60% (below 330 points) = F

A. Exams: There will be a total of four exams. Three tests will be given during the quarter and the fourth 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 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.

C. Written Assignments: An additional 50 points 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 (p. 5).

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.
## LEARNING Course Outline

<table>
<thead>
<tr>
<th>DATE</th>
<th>LECTURE TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week #1</td>
<td>Introduction to Learning</td>
</tr>
<tr>
<td>Jan 4-8</td>
<td>Jan 11-15</td>
</tr>
<tr>
<td>Week #2</td>
<td>Introduction to Classical Conditioning</td>
</tr>
<tr>
<td>Jan 11-15</td>
<td></td>
</tr>
<tr>
<td>Week #3</td>
<td>Martin Luther King Day –No Class</td>
</tr>
<tr>
<td>Mon Jan 18</td>
<td>Jan 20</td>
</tr>
<tr>
<td></td>
<td>Classical Conditioning Variables</td>
</tr>
<tr>
<td>Jan 22 (Fri)</td>
<td>TEST #1</td>
</tr>
</tbody>
</table>

### SECTION 2: MECHANISMS/ASSOCIATIONS OF CLASSICAL COND. (6)

<table>
<thead>
<tr>
<th>DATE</th>
<th>LECTURE TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week #4</td>
<td>Associations in Classical Conditioning</td>
</tr>
<tr>
<td>Jan 25-27</td>
<td></td>
</tr>
<tr>
<td>Weeks #5 &amp; 6</td>
<td>Formal Theories of C.C.</td>
</tr>
<tr>
<td>Jan 29-Feb 5</td>
<td></td>
</tr>
<tr>
<td>Week #6</td>
<td>TEST #2</td>
</tr>
<tr>
<td>Feb 8 (Mon)</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 3: ANALYSIS OF INSTRUMENTAL CONDITIONING (7)

Week #6
Feb 10-12
Introduction to Instrumental Conditioning

Week #7
Feb 15-17
Responding for Appetitive and Aversive Reinforcers

Week #8
Feb 19 -24
Theories of Instrumental Conditioning

Feb 26 (Fri)
TEST #3

SECTION 4: APPLICATIONS OF LEARNING THEORY (6)

Week #9
March 1
Learned Helplessness, Academics, & Achievement

March 3
Drugs

March 5
Treatment of Fear-Based Disorders

Week #10
March 8
Food, Sex, & Aversions

March 10
Food, Sex, & Aversions

March 12
Teaching Language to Autistic Children

TEST #4/ FINAL EXAM: Monday, March 15, 8:00 a.m. to 11:00 a.m.
I. CLASSICAL CONDITIONING EXERCISES

Assignment #1 (20 Points):
- Exercise 1: Basic Acquisition
- Exercise 2: Extinction
- Exercise 3: Spontaneous Recovery
- Exercise 4: Varying the Strength of the CS
- Exercise 5: Varying the Strength of the US

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

II. INSTRUMENTAL CONDITIONING EXERCISES

Assignment #5: (20 Points)
- Basic I.C. Chp 3  Exercises 22-27
- Schedules of Reinforcement Exercises 31-35

Assignment #6: (20 Points)
- Stimulus Discrimination & Stimulus Generalization Chp. 13
ASSIGNED LEARNING ARTICLES 2010

SECTION I Readings:

Friday, January 9th


Wednesday, January 13th


Friday, January 15th


Wednesday, January 21st

SECTION II Readings:

Wednesday, February 3rd


Friday, February 5th


SECTION III Readings:

Friday, February 12th


Wednesday, February 24th


SECTION IV Readings:

Monday, March 1st


McKean, K. J. (1994). Academic helplessness: Applying learned helplessness theory to
undergraduates who give up when faced with academic setbacks. *College Student Journal*, 28, 456-462.
http://www.kzoo.edu/reserves/psyc/420/winter2010/mckean.pdf

Wednesday, March 3rd

http://www.kzoo.edu/reserves/psyc/420/winter2010/miles.pdf

http://www.kzoo.edu/reserves/psyc/420/winter2010/siegel.pdf

Friday, March 5th

http://www.kzoo.edu/reserves/psyc/420/winter2010/monfils.pdf

http://www.kzoo.edu/reserves/psyc/420/winter2010/schiller.pdf

Wednesday, March 10th

http://www.kzoo.edu/reserves/psyc/420/winter2010/baker.pdf

Friday, March 12th

http://www.kzoo.edu/reserves/psyc/420/winter2010/mceachin.pdf