

**The University of Mississippi**  
**PSY 309: Learning, Section 2**  
**Fall 2010**  
6/9/10

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### **Class meeting information:**

This class meets 2:30 to 3:45 pm on Tuesdays and Thursdays, in Peabody 206. We will meet for the final exam during the scheduled examination time (Dec 7<sup>th</sup> 4pm).

### **Catalogue Description:**

Introduction to basic laws and theories of learning. Prerequisite: PSY 201: General Psychology

### **A more elaborate description:**

This class provides opportunities for the participants to survey the field of human and animal learning. We will examine the principles and findings of this field. Although this course will focus mostly on basic research findings, we will also discuss the applications of this natural science. Such applications of research findings have led to improvements in animal training, organizational behavior management, parenting, occupational safety, education, treatment of psychological problems, coaching, management of medical conditions, treatment and training in developmental disabilities, and examination of pharmaceuticals, among many others.

### **Course Objectives:**

Successful participants will:

- 1) describe potential controlling variables of behavior, without the use of mentalistic terms, using technical terms (i.e., explain behavior to those familiar with the principles of learning)
- 2) describe potential controlling variables of behavior, without the use of mentalistic terms, using non-technical terms (i.e., explain behavior to a friend or a family member using the principles but not the terms of learning)
- 3) demonstrate relationships between controlling variables and dimensions of behavior
- 4) design methods of examining relationships between controlling variables and dimensions of behavior
- 5) locate, use, and critique sources of scientific literature related to learning

### **Required Materials:**

- Books & computer program
  - 1) Sniffy the Virtual Rat Pro, Version 2.0
  - 2) Readings as assigned (available on blackboard and in the course pack)
- Stuff to bring to class everyday
  - 1) Response Card
  - 2) SAFMEDS
  - 3) Lecture Notes
- Connectivity
  - 1) Blackboard account, Internet access, & Check olemiss email account *frequently*
  - 2) Psychology Study Participant Manager <https://www.psych.uni.edu/pspm/olemiss/>

## Ways to earn points:

Success in any course, as measured by your final grade and the degree to which your verbal and nonverbal behavior has changed, is dependent upon the effort you and your instructor put into the course. As the instructor, I believe it is my job to arrange conditions under which you are likely to successfully meet the objectives of this course.

Instead of relying solely on major exams, this class arranges multiple *frequent* opportunities for students to practice and demonstrate skills related to the course objectives. The points earned on these opportunities for practice allow students to 'unlock' the final opportunity to demonstrate these skills.

As this points + final system is somewhat unusual, it can be difficult to understand. Please pay close attention to this section of the syllabus and seek additional information as required. University policy provides for reasonable accommodations to be made for students with verified disabilities on an individualized and flexible basis, and I welcome opportunities to discuss potential accommodations.

You may meet the point requirements for whatever grade you plan to earn in this class by completing all, or some of the assignments listed below (descriptions of each found on Blackboard). **There are two required assessments:**

1. **Plan for Demonstrating Class Objectives (due second week of class)**
2. **Final Exam**

You may choose to earn points by doing any or all of the other assignments. Please note that:

- all assignments have due dates (see late assignments and course schedule below)
- all on-line weekly assignments (SAFMEDS, Blackboard, Reading Quizzes) are due by 6pm on Fridays
- the number of points available on an assignment & the number you earn are not necessarily equal
- it is not possible to pass the class with only the points available in the last half of the semester
- the correlation coefficient between class attendance and final grade is very high ( $r^2 \approx 0.70$ ).

## Assignment Menu

	Maximum Number	Maximum Points	Potential Points
(Required) Plan for Demonstrating Class Objectives	1	5	5
Class Assignments & Quizzes	28	20	560
"Live" SAFMEDS	3	50	150
"Labs"	2	20	40
Weekly On-Line SAFMEDS	14	5	70
Weekly On-Line Test / Blackboard Assignment	14	10	140
Sniffy: The Virtual Rat exercises	40	5	200
Journal Article Review	2	50	100
Research Study Proposal	1	75	75
Participation studies in UM's psychology department	5 hours	4	20
	<b>Total Possible Points</b>		<b>1340</b>

### Variable Points

Self-proposed assignments can be arranged (up to 2 for a maximum of 50 points each)

Grades:

Your final grade in this class is dependent on two related performances:

- a) the number of points you accumulate during the semester
- b) your performance on the cumulative final exam

final exam points earned	90%+	80-89%	70-79%	60-69%	50-59%	1-49%	0%
1000 or more	A			B			C
900 - 999	A		B				C
800 - 899	A	B				C	
700 - 799	B		C				D
600 - 699	C			D			
0 - 599	F						

## Academic Conduct:

“The University is conducted on a basis of common honesty. Dishonesty, cheating or plagiarism, or knowingly furnishing false information to the University are regarded as particularly serious offenses.” (M Book, p. 4). In some cases, students are unaware of the specific behaviors which can be considered as plagiarism; however, this is not an excuse for such behaviors (see pages 292-294 of the APA style guide for information). Minimally, a student found cheating or plagiarizing in this class will be given a zero for the assignment. Academic misconduct will be reported and in the vast majority of cases, such actions could lead to failing the course and disciplinary action by the university.

## Grade Appeals:

If the student wishes to dispute a grade on any assignment, he/she may do so by writing a reasonable explanation and turning it in with the graded assignment. The instructors will evaluate this explanation to determine if no, partial, or complete credit will be given.

## Attendance and Classroom Behavior:

I believe that you have the greatest opportunity to learn when you have multiple opportunities to practice, and that classes provide such opportunities. Therefore, I expect students to attend classes, arrive on time, and stay until the end of class. Students have a choice whether or not to attend class; however, I also expect students to reduce the number of potential distractions during class (i.e., no reading other materials, no text messaging, no phone calls, no crossword puzzles, no studying for other classes). In every class period, students have the opportunity to earn up to 20 points. These in-class points may not be made up.

## Late Assignments:

All assignments are due **on-line by 6pm** on the scheduled date, even for students absent during the class period (see the course schedule). Students may turn assignments in early for feedback. For most late assignments, I will take off the following percentage of the possible points before grading:

How Late?	Percent Off	Example: Highest possible for assignment worth 50 points
Next day	5%	47.5
2-7 days	10%	45
7-14 days	50%	25
15 + days	100%	0

*n.b. In-Class Activities and On-Line Weekly activities are not available after the due date.*

## Modifications to syllabus and assignments

I reserve the right to modify this syllabus during the course of the semester after notification to the class.

**An Outline for PSY 309:02 Learning  
Kellum – Fall 2010**

- The basics
  - Reading Research
  - Contextualism
    - Successful working vs. causation
      - Biological/Environmental....
    - Act in Context
      - Context/Act is whole – any divisions/classifications are only to allow successful working
  - Natural Science of Behavior
    - Phylogeny & Ontogeny
    - Stimulus functions
    - Measurable dimensions of behavior & stimuli
    - Reading Graphs and Graphing data
    - Environmental manipulations & control
- Elicited Behavior – Respondent Behavior
  - Elicitation
  - Stimulus Presentation over time (learning over time)
    - Habituation
    - Sensitization
    - Summation
    - Potentiation
  - Stimulus Control Superimposed on Stimulus Presentation - Conditioned Elicitation Learning responses in new situations
    - Transfer of stimulus function
    - Excitatory (appetitive)
    - Inhibitory (aversive)
      - Conditioned Taste Aversion
    - Extinction
      - Spontaneous Recovery
    - Controls
    - Compound Conditioning
      - Blocking
      - Overshadowing
      - Sensory Preconditioning
      - Higher-Order Conditioning
- Consequential Control
  - Reinforcement – Learning to do something or do something more
    - Change from mazes to operant chamber
    - Three things necessary (B, Change, Increase)
    - Effectiveness of reinforcers
    - Discriminations
      - Positive – Negative
      - Appetitive - Aversive
      - Conditioned – Unconditioned (transfer of stimulus function)
      - Intrinsic – Extrinsic
      - Conditioned – Generalized Conditioned Reinforcer
    - Shaping
      - Response Generalization - Induction
    - Extinction
      - Extinction Burst
      - Variation in Behavior
      - Spontaneous Recovery
      - Resurgence

- Schedules of Reinforcement
    - Basic Schedules
    - Partial-Reinforcement Effect
    - Post Reinforcement Pause
    - Combined Schedules
    - Matching Law
    - Adjunctive Behavior
      - Research animals (Activity Anorexia, Polydipsia)
      - Humans
  - Punishment – Learning not to do something
    - Three things necessary (B, Change, Decrease)
    - Discriminations
      - Positive – Negative
      - Aversive – Appetitive
      - Aversive – Noxious
      - Punishment – Aversive
      - Punishment – Noxious
    - Effectiveness of punishers
    - Aversive Control & Counter Control
- Establishing Operations – Effects for Learning
  - Revisiting the effectiveness of reinforcers
- Operants – the Whole Story Stimulus Control superimposed on Consequential Control – learning to respond in the right situation
  - Stimulus Discrimination (schedules of reinforcement with antecedent control)
    - $S^D$
    - $S^A$ 
      - Escape from unconditioned aversives
      - Escape from conditioned aversives (avoidance)
  - Stimulus Generalization
  - Generalized Operants - Modeling/Imitation
- Relational Responding
  - Transfer of Stimulus Function
  - Learning to respond relationally
    - Reflexivity
    - Symmetry – Mutual Entailment
    - Transitivity – Combinatorial entailment
    - Transformation of function
  - Human vs other critters performance
  - What that gets the organism
    - Verbal behavior
      - Remembering
      - Rule-Governed Behavior
      - Dreaming
      - Self-Knowledge

week	day	date	topic	Assignments Due
1	1	8/24/10	How to read a research article	Objective Plan
	2	8/26/10	Contextualism	SAFMEDS 1, Weekly 1
2	3	8/31/10	Natural Science of Behavior (Phylogeny, Ontogeny, ...)	
	4	9/2/10	Graphing, Environmental Manipulations	SAFMEDS 2, Weekly 2, Lab 1 (Excel)
3	5	9/7/10	Elicitation	<i>Sniffy 1-9</i>
	6	9/9/10	Conditioned Elicitation	SAFMEDS 3, Weekly 3
4	7	9/14/10	Conditioned Elicitation - Inhibitory	<i>First possible day for Live SAFMEDS, Sniffy 10-21</i>
	8	9/16/10	Conditioned Elicitation Compound Conditioning & Controls, and interesting stuff	Lab 2 (APA), SAFMEDS 4, Weekly 4
5	9	9/21/10	Reinforcement - Chambers, effectiveness, discriminations	Article Review 1, <i>Sniffy 22-27</i>
	10	9/23/10	Reinforcement - Extinction, Resurgence & Differential Reinforcement	SAFMEDS 5, Weekly 5
6	11	9/28/10	Reinforcement - Shaping, Chaining,	
	12	9/30/10	Reinforcement - Basic Schedules of Reinforcement	SAFMEDS 6, Weekly 6
7	13	10/5/10	Reinforcement - Matching Law	<i>Sniffy 31-36</i>
	14	10/7/10	Adjective Behavior	SAFMEDS 7, Weekly 7
8	15	10/12/10	Punishment - Discriminations, Effectiveness	<i>Sniffy 28-30</i>
	16	10/14/10	Punishment - Aversive Control & Counter Control	SAFMEDS 8, Weekly 8
9	17	10/19/10	Establishing Operations	Article Review 2
	18	10/21/10	Operants - the whole story	SAFMEDS 9, Weekly 9
10	19	10/26/10	Stimulus Discrimination	<i>Sniffy 37-42</i>
	20	10/28/10	Stimulus Generalization	SAFMEDS 10, Weekly 10
11	21	11/2/10	Generalized Operants	<i>Sniffy 43-46</i>
	22	11/4/10	Relational Responding	SAFMEDS 11, Weekly 11
12	23	11/9/10	Relational Responding	
	24	11/11/10	Verbal Behavior & Rule-Governed Behavior	SAFMEDS 12, Weekly 12
13	25	11/16/10	Self-Knowledge	Research Proposal
	26	11/18/10	Other Complex behavior - remembering, dreaming	SAFMEDS 13, Weekly 13 Last day for self-proposed assignments
		11/23/10	Thanksgiving Break	
		11/25/10		
14	27	11/30/10	Blurring of the operant-respondent distinction	
	28	12/2/10	TBA	SAFMEDS 14, Weekly 14, Last day for Live SAFMEDS
15	29	12/07/10	Learning in Learning?	Final Exam due by 12/08 at 6pm