Instructor: Karen Kate Kellum  Email: kkellum@olemiss.edu
Office Phone: 915-5199  Home Phone: 234-4488 (between 8 a.m. – 10 p.m. is acceptable)
Office: 200 Old P.R. Building  Office Hours: email or call to arrange an appointment

Class meeting information:
This class meets 2:30 to 3:45 pm on Tuesdays and Thursdays, in Peabody 202. We will meet during the scheduled examination time (Dec 7th 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 lead 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 major cumulative exams, this class arranges multiple frequent opportunities for students to practice and demonstrate skills related to the course objectives. This is slightly unusual; therefore, the point-system can be difficult to understand. Please pay close attention to this section of the syllabus and seek additional information as required.

It is University policy to provide, on a flexible and individual basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities, which have been verified through the Office of Student Disability Services, are encouraged to contact me to discuss their individual needs for 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. Exit Survey/Final (due during final exams)

You may choose any or all of the other assignments to complete. Please note that:
1) all assignments have due dates (see late assignments below)
2) the number of points available on an assignment & the number you earn are not necessarily equal
3) the correlation coefficient between class attendance and final grade is very high ($r^2 \approx 0.70$).

### Assignment Menu

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Maximum Number</th>
<th>Maximum Points</th>
<th>Potential Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Required) Plan for Demonstrating Class Objectives</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Class Assignments &amp; Quizzes</td>
<td>29</td>
<td>20</td>
<td>580</td>
</tr>
<tr>
<td>“Live” SAFMEDS</td>
<td>3</td>
<td>50</td>
<td>150</td>
</tr>
<tr>
<td>“Labs”</td>
<td>2</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Weekly On-Line SAFMEDS</td>
<td>14</td>
<td>10</td>
<td>140</td>
</tr>
<tr>
<td>Weekly On-Line Test / Blackboard Assignment</td>
<td>14</td>
<td>10</td>
<td>140</td>
</tr>
<tr>
<td>Sniffy: The Virtual Rat exercises</td>
<td>40</td>
<td>5</td>
<td>200</td>
</tr>
<tr>
<td>Journal Article Review</td>
<td>2</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Research Study Proposal</td>
<td>1</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>(Required) Cumulative Final Survey</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Participation studies in UM’s psychology department</td>
<td>5 hours</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total Possible Points</strong></td>
<td></td>
<td></td>
<td><strong>1500</strong></td>
</tr>
</tbody>
</table>

### Variable Points
Self-proposed assignments can be arranged (up to 2)

### Grades:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number of points needed</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>1000</td>
</tr>
<tr>
<td>B</td>
<td>800</td>
</tr>
<tr>
<td>C</td>
<td>700</td>
</tr>
<tr>
<td>D</td>
<td>600</td>
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</table>

To earn an “A” or “B” in this course students must complete the Plan for Demonstrating Class Objectives and the Final Survey as well as accumulate the specific number of points.

### 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 late assignments:
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, when you do I also expect you 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. The only way to earn these points is to be in class and to participate in all of the classroom activities (i.e., you cannot “make-up” in-class assignments).

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

<table>
<thead>
<tr>
<th>How Late?</th>
<th>Percent Off</th>
<th>Example: Highest possible for assignment worth 50 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>After 6pm or the Next day</td>
<td>5%</td>
<td>47.5</td>
</tr>
<tr>
<td>2-7 days</td>
<td>10%</td>
<td>45</td>
</tr>
<tr>
<td>7-14 days</td>
<td>50%</td>
<td>25</td>
</tr>
<tr>
<td>15 + days</td>
<td>100%</td>
<td>0</td>
</tr>
</tbody>
</table>

n.b. SAFMEDS and On-Line Weekly Quizzes not be available after the due date.

Blackboard Information
http://blackboard.olemiss.edu/ (login page)

Modifications to syllabus and assignments
I reserve the right to modify this syllabus during the course of the semester after notification to the class.
• The basics
  o Reading Research
  o Contextualism
    ▪ Successful working vs. causation
      • Biological/Environmental….
    ▪ Act in Context
      • Context/Act is whole – any divisions/classifications are only to allow successful working
  o 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
  o Elicitation
    o Stimulus Presentation over time (learning over time)
      ▪ Habitation
      ▪ Sensitization
      ▪ Summation
      ▪ Potentiation
    o 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
    o Compound Conditioning
      ▪ Blocking
      ▪ Overshadowing
      ▪ Sensory Preconditioning
      ▪ Higher-Order Conditioning
• Consequential Control
  o 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
    o Research animals (Activity Anorexia, Polydipsia)
    o Humans
  o 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
  o Revisiting the effectiveness of reinforcers
• Operants – the Whole Story Stimulus Control superimposed on Consequential Control – learning to respond in the right situation
  o Stimulus Discrimination (schedules of reinforcement with antecedent control)
    • \( S^D \)
    • \( S^A \)
      • Escape from unconditioned aversives
      • Escape from conditioned aversives (avoidance)
  o Stimulus Generalization
  o Generalized Operants - Modeling/Imitation
• Relational Responding
  o Transfer of Stimulus Function
  o Learning to respond relationally
    • Reflexity
    • Symmetry – Mutual Entailment
    • Transitivity – Combinatorial entailment
    • Transformation of function
  o Human vs other critters performance
  o What that gets the organism
    • Verbal behavior
      • Remembering
      • Rule-Governed Behavior
      • Dreaming
      • Self-Knowledge
<table>
<thead>
<tr>
<th>week</th>
<th>day</th>
<th>date</th>
<th>topic</th>
<th>Assignments Due</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>8/25/09</td>
<td>How to read a research article</td>
<td>Objective Plan</td>
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<tr>
<td>2</td>
<td>3</td>
<td>9/1/09</td>
<td>Natural Science of Behavior (Phylogeny, Ontogeny, ...</td>
<td>SAFMEDS 2, Weekly 2, Lab 1 (Excel)</td>
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<tr>
<td>3</td>
<td>5</td>
<td>9/8/09</td>
<td>Elicitation</td>
<td>Sniffy 1-9</td>
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<tr>
<td>4</td>
<td>7</td>
<td>9/15/09</td>
<td>Conditioned Elicitation - Inhibitory</td>
<td>First possible day for Live SAFMEDS, Sniffy 10-21</td>
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<tr>
<td>5</td>
<td>9</td>
<td>9/22/09</td>
<td>Reinforcement - Chambers, effectiveness, discriminations</td>
<td>Article Review 1, Sniffy 22-27</td>
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<tr>
<td>6</td>
<td>11</td>
<td>9/29/09</td>
<td>Reinforcement - Shaping, Chaining,</td>
<td></td>
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<tr>
<td>7</td>
<td>10</td>
<td>9/17/09</td>
<td>Conditioned Elicitation Compound Conditioning &amp; Controls, and interesting stuff</td>
<td>Lab 2 (APA), SAFMEDS 4, Weekly 4</td>
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<tr>
<td>8</td>
<td>10</td>
<td>9/24/09</td>
<td>Reinforcement - Extinction, Resurgence &amp; Differential Reinforcement</td>
<td>SAFMEDS 5, Weekly 5</td>
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<tr>
<td>9</td>
<td>11</td>
<td>9/30/09</td>
<td>Reinforcement - Basic Schedules of Reinforcement</td>
<td>SAFMEDS 6, Weekly 6</td>
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<tr>
<td>10</td>
<td>12</td>
<td>10/1/09</td>
<td>Reinforcement - Matching Law</td>
<td>SAFMEDS 7, Weekly 7</td>
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<tr>
<td>11</td>
<td>15</td>
<td>10/6/09</td>
<td>Adjective Behavior</td>
<td>SAFMEDS 8, Weekly 8</td>
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<td>12</td>
<td>16</td>
<td>10/9/09</td>
<td>Punishment Discriminations Effectiveness</td>
<td>SAFMEDS 9, Weekly 9</td>
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<td>13</td>
<td>17</td>
<td>10/10/09</td>
<td>Establishing Operations</td>
<td>SAFMEDS 10, Weekly 10</td>
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<tr>
<td>14</td>
<td>21</td>
<td>10/15/09</td>
<td>Generalized Operants</td>
<td>SAFMEDS 11, Weekly 11</td>
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<td>15</td>
<td>22</td>
<td>10/16/09</td>
<td>Relational Responding</td>
<td>SAFMEDS 12, Weekly 12</td>
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<tr>
<td>16</td>
<td>23</td>
<td>10/18/09</td>
<td>Verbal Behavior &amp; Rule-Governed Behavior</td>
<td>SAFMEDS 13, Weekly 13</td>
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<tr>
<td>17</td>
<td>24</td>
<td>10/23/09</td>
<td>Self-Knowledge</td>
<td>SAFMEDS 14, Week 14, Last day for Live SAFMEDS</td>
</tr>
<tr>
<td>18</td>
<td>25</td>
<td>10/29/09</td>
<td>Other Complex behavior - remembering, dreaming</td>
<td>SAFMEDS 15, Learning in Learning? Final Exam due by 12/08 at 6pm</td>
</tr>
<tr>
<td>19</td>
<td>26</td>
<td>11/4/09</td>
<td>Thanksgiving Break</td>
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<tr>
<td>20</td>
<td>27</td>
<td>11/7/09</td>
<td>Blurring of the operant-respondent distinction</td>
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<tr>
<td>21</td>
<td>28</td>
<td>11/12/09</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>29</td>
<td>11/19/09</td>
<td>Learning in Learning?</td>
<td>Final Exam due by 12/08 at 6pm</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>12/1/09</td>
<td>Last day for self-proposed assignments</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>12/3/09</td>
<td>Last day for Live SAFMEDS</td>
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</table>