BEHV 5100
Introduction to Behavior Analysis
Credits: 03
Department of Behavior Analysis
The University of North Texas
Fall 2016

COURSE INSTRUCTOR: Traci Cihon, PhD, BCBA-D

INSTRUCTOR CONTACT INFORMATION:
Email: traci.cihon@unt.edu
Phone: (940) 565-3318
Office: Chilton 360B
Office Hours: by appointment

WEB SITE ADDRESS: https://learn.unt.edu

COURSE TIME: Wednesday 6:00 pm to 8:50 pm (Lang 104)

COURSE DESCRIPTION & GOALS

Official Course Description
Defines and delimits the subject matter of behavior analysis. Examines the principles that describe behavioral processes and distinguishes the learned and unlearned components of operant and respondent behavior. Relates behavior change procedures to the processes accounting for learned behavior.

Additional Course Description
Throughout history, people have sought “truth” using many different approaches. Philosophers, for example, rely on a system of logical arguments and counter arguments. Lawyers employ a more aggressive approach, somewhat similar to a boxing match, where they attempt to put forth facts supporting their position and discredit their opponent’s facts, assuming that by this process the ‘truth’ will drop out. Science uses a different attack, more akin to mountain climbing. In this approach, a scientist collects information and uses a structured method of inquiry to discern fact from fiction, and attempts to tie many facts together into a cohesive framework that then becomes the basis for theory and eventually scientific laws.

Psychology has taken a similarly circuitous route to studying why people behave the ways they do. William James relied on introspection and memory tasks to attempt to understand how people think. Freud used early history and intrapsychic processes to explain behavior. Carl
Rogers used a humanist-existentialist approach. There are many disciplines within psychology, each with its ways of trying to understand how people think and act.

Behavior Analysis is a natural science approach to studying behavior. In this discipline, behavior is considered to be a legitimate focus of inquiry in and of itself. As with other scientific disciplines, behavior analysis has assumptions of lawfulness, determinism, and empiricism. The goal of behaviorism is the description, prediction, and control of behavior. By control, we mean functional control of behavior—being able to demonstrate cause and effect relations between environmental events and the behavior under study. Behavior analysis borrowed its research methodology from the fields of biology, chemistry, and the other sciences, and relies on replication to determine whether an effect is reliable.

In this course, you will learn about how the environment selects behavior, and the basic principles by which it has this effect. Although there are only a limited number of behavioral principles, the way they exert control over behavior and compete with each other to select which response occurs from a vast array of options is incredibly complex. A DNA analogy might be made helpful in explaining how a few simple processes can combine to explain complex behavior. Each gene is made up of four chemicals: adenine, thymine, cytosine and guanine. Those chemicals combine in different ways to make up genes and eventually a person’s genetic code, which produces the vast number of chemicals that make life possible.

The goals of this course are to teach you how to study behavior within a scientific framework, how to use data to understand behavior, and the basic concepts and principles of behavior analysis.

**COURSE OBJECTIVES**

The course has been divided into units. Each unit has specific corresponding objectives. The units for the course are listed at the end of the syllabus.

**LEARNING ACTIVITIES & EVALUATION**

*Lecture/Discussion*

A lecture introducing the material for that week will occur during each class period. Lectures will encourage active student responding (either chorally or using response cards). Questions and discussions are encouraged.

*Quizzes, Microthemes & In-Class Projects*

Beginning the second week of class (see course schedule) students will begin a rigorous course of active responding that is comprised of some combination of quizzes, microthemes, and/or in-class projects.
Quizzes
Some weeks (see course schedule) there will be a quiz that is administered at the beginning of each class period. The quizzes will cover material from past reading assignments, previous lectures, and the corresponding SAFMEDS. Quizzes will include fill-in-the-blank and short answer questions. Quizzes will be cumulative.

Microthemes
Five microthemes will be due throughout the semester. A microtheme is a short (no more than 50 words) writing assignment on a specific topic. The writing should be succinct and free of grammatical and structural errors. Each microtheme response should be written on a 5x7 notecard and should follow APA citation guidelines. Microthemes are listed below and due dates are noted on the course schedule.

Microtheme 1: Describe the defining characteristic of behaviorism in such a way that differentiates it from other branches of psychology.

Microtheme 2: Provide a definition of radical behaviorism that differentiates it from methodological behaviorism.

Microtheme 3: Explain what you are studying (behavior analysis) in terms your non-behaviorist grandmother would understand.

Microtheme 4: Describe how at least one PORTL lesson/exercise led you to a better understanding of one of the concepts/principles we discussed in this course.

Microtheme 5: If you could teach everyone in the world about one behavior analytic concept or principle, what would it be and why?

In-Class Projects
Students will complete five in-class projects. For some units (designated on the weekly class schedule) students will be given a topic or a choice between two topics that correspond with the course material for that unit. Students will be given time to work together in dyads (or triads if necessary) on the in-class project with support from the instructor. Following the in-class discussion, each student will be responsible for creating a final write-up, outside of class, that s/he turns into the instructor at the following class session. The final write-up will be graded on an individual basis (i.e., each student will turn in his/her own completed project), and will be due at the subsequent week’s class session (see weekly class schedule). Late papers will not be accepted.

In-Class Project 1: Operant Chambers Part I
Some research in behavior analysis is conducted in the context of an operant chamber. Many students have not had the experience of working with an operant chamber but understanding the apparatus and the basic features of such can be helpful in understanding much of the literature you will come into contact with as you pursue your master’s degree in behavior analysis. For this in-class activity, you will sketch and label the critical components included in/on the apparatuses most frequently used in our work with non-human participants. You might find it helpful to select a study from *The Journal of the Experimental Analysis of Behavior* to guide your work. Students should briefly explain why each of the components are included/labeled on their diagram in the context of why it is important to include such features of the operant chamber in understanding basic behavioral principles (no more than 2 pages excluding the diagram).

**In-Class Project 2: Operant Chambers Part II**

Some research in behavior analysis is conducted educational settings such as elementary schools or special education classrooms or in the participants’ homes. Many students have not had the experience of working in these settings; yet, we often ask you to translate findings from research with non-humans to use in your applied research and clinical work. For this in-class activity, you will sketch and label the features of your selected environment in a way that is consistent with the critical components of the apparatuses in which we often study non-human behavior and contingencies. You might find it helpful to select a study from *The Journal of Applied Behavior Analysis* to guide your work. Students should briefly explain why each of the components are included/labeled on their diagram in the context of why it is important to consider such aspects of the environment selected when attempting to translate findings from non-human work to in clinical work and applied work with humans (no more than 2 pages excluding the diagram).

**In-Class Project 3: Definition of Behavior Paper**

For the definition of behavior paper, students should first read Johnston, J. M. & Pennypacker, H. S. (1993). Behavior as a scientific subject matter, In *Strategies and Tactics of Behavioral Research* (pp. 21-29). Hillsdale, New Jersey: Erlbaum (available on the course website). Students should identify the critical components of Johnston and Pennypacker’s definition of behavior. In addition, students should briefly explain the rationale for each component of the definition. The rationale should specify (1) why the component is important and (2) what the implications are if that component is not included in a definition of behavior (no more than 3 pages excluding references).
In-Class Project 4: Exploring Your Interests & Integrating Your Experiences

By this point in the first semester of the master’s of science in Behavior Analysis at the University of North Texas, graduate students should have attended meetings at least one (if not more than one) faculty-advised research lab. For the first part of this in-class project, you will have a conversation with at least one other student in the course, preferably someone who has experienced a different faculty-advised research lab than you have. Each of you should explain to each other why you selected the lab(s) you have attended, considering what events in your own history led you to select that lab. You should describe your experiences thus far in the lab and how they are contributing to your current understanding of the material you are exploring in your classes and practica and describe how these experiences are informing your plans for continued participation in said lab or your interest in other labs. For the second portion of this assignment you will write a paper that includes a summary of your conversation with your peer, a reflection on your experiences, a reflection on your conversation with your peer including what you learned from them about their experiences, and your plan for involvement in research labs moving forward.

In-Class Project 5: The Matrix Project

The Behaviorists for Social Responsibility Special Interest Group (BFSR SIG) of the Association for Behavior Analysis International (ABAI) has created a group of its members who have been working on The Matrix Project. The Matrix Project is an attempt to improve preparation and increase opportunities for behavior analysts who seek to apply our science to many of the pressing problems facing human societies. The Matrix Project has identified 27 societal sectors that can support and oppose the adoption of behavioral systems science (cultural analysis) to address social issues (https://docs.google.com/document/d/1e2GxlPF6gQhWmObK0tbcMVu5W8bOgTr6KsWe-0LDOWs/edit). One such sector focuses on the Individual Student. For this In-Class Project, review the analysis of the feasible practice/actions for the Individual Student (https://docs.google.com/document/d/1nCWAqU92Ne1zt25InhUXu8A6puR0lXndRufq2Od-vo/edit). Consider first if you might engage in any of the practices/actions noted in the analysis and describe the rationale for your decision. Then, consider the competing/opposing practices. Describe how you might overcome these in order to access the reinforcers noted (or other reinforcers you might contact) to engage in the practice/action. Finally, comment on whether or not you find this project and its goals useful to you as a student of behavior analysis and explain why (no more than 3 pages excluding references).
SAFMEDS
See All Fast Minute Each Day Shuffle (SAFMEDS) is an instructional tool that allows students to become both fast and accurate with a variety of course content including basic concepts and terms and definitions (cf., Eshleman, 1985). SAFMEDS will be used to assist students in identifying the controlling variables and corresponding definitions for various vocabulary associated with the taxonomy of behavior analysis. SAFMEDS checkouts will be conducted each week beginning the second week of class. The goal for the final checkout is 38 correct responses per minute, with the pinpointed learning channel being: see term/say definition. Students can checkout on SAFMEDS at any point in time during the semester but must complete the final checkout by November 30, 2016.

Fifty total points are available for the SAFMEDS final checkout. Points will be awarded based on the following criteria:

38+ cpm 60 points
16-37 cpm 30 points
8-15 cpm 15 points
4-7 cpm 8 points
3 or less cpm 4 points

cpm = correct responses per minute

SAFMEDS Alternative Assignment
Students who would prefer to not use SAFMEDS as a study tool can earn their 60 points by completing an alternative assignment. Students interested in this option should first read Meindl et al. (2013) and construct a brief summary of the article. Then, students interested in this option will create a second set of SAFMEDS to parallel the deck provided in this course. The student created terms and definitions should maintain the critical features of the definitions in the instructor provided SAFMEDS, maintain brevity in the alternative definitions, and include a “matched” card for at least 30 of the cards in the instructor provided deck. Two points will be awarded for each student created card that fits the aforementioned criteria (60 possible points). The alternative assignment is due by November 30, 2016.

POINT SUMMARY
Quizzes (6) @ 15 points each = 90 total points
Microthemes (5) @ 20 points each = 100 points
In-Class Activities (5) @ 20 points each = 100 points
SAFMEDS/SAFMEDS Alternative = 60 points
Total Points Possible = 350 points

GRADE EQUIVALENTS (% of 350 points earned):
A: 90% to 100%  B: 80% to 89%  C: 70% to 79%  F: 69% or less

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES
The University of North Texas is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 – The Rehabilitation Act of
1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at http://www.unt.edu/oda/apply/index.html. Also, you may visit the Office of Disability Accommodation in the Sage Hall (room 167) or call them at (940) 565-4323.

POLICIES
No individual exceptions can be made to the syllabus.

Re-grades: If a student believes an error has been made in grading, a written request for reconsideration of the item(s) in question may be submitted within 1 week of receipt of the graded material. The written request should specify the item(s) in question, and the reason the student believes the answer given was correct, citing relevant sources (e.g., page number from readings on which the answer was based).

Absences: If a student must be absent for any reason, s/he should arrange to submit the applicable written assignment early, as no assignments turned in after the due date can be accepted. Students are responsible for making their own arrangements to obtain information from any missed class period. There will be no additional make-up opportunities for missed assignments.

Student Conduct: Each student automatically certifies that any material submitted for grading is his/her own independent work. UNT policies require reporting of plagiarism or any suspected violations that constitute possible academic misconduct. Students are responsible for being familiar with the Code of Student Conduct.

Group work is encouraged; however, in the past there have been situations in which group work could have been considered cheating or plagiarism. “Legitimate” group work takes advantage of consultation with your peers, provides you with ideas, suggestions, corrections, etc., which you take into consideration in the development of your unique and individual product. Examples include reading the text and writing answers to the study guide items, then working closely with other students to compare study guide answers, and to attempt to resolve different understandings. Failing to do the reading, and memorizing answers that another student has written for the study guide is not legitimate group work; it is cheating. Drafting the assignments, then comparing specific aspects of your product to others’ is appropriate. Copying someone else’s work products (or making your work available to another student to copy) is not legitimate; it is cheating. Always, if you are unsure about boundaries of legitimate group work, please (1) ask for clarification from the instructor, and (2) make full disclosure so that there is no question about your intentions. We are very happy to talk about these boundaries and work with you to maximize your learning and maintain individual accountability.
**Assistance:** Students are encouraged to contact the instructor (by email or during office hours) or teaching assistant any time clarification or additional help in understanding the material is needed. Any questions that will aid you in mastering the material are welcomed.

**Diversity Statement:** It is the policy of the University of North Texas (and this instructor) not to discriminate on the basis of race, color, religion, sex, age, national origin, disability (where reasonable accommodations can be made), disabled veteran status or veteran of the Vietnam era status in its educational programs, activities, admissions or employment policies. In addition to complying with federal and state equal opportunity laws and regulations, the university through its diversity policy declares harassment based on individual differences (including sexual orientation) inconsistent with its mission and educational goals. Direct questions or concerns to the equal opportunity office, (940) 565-2456, or the dean of students, (940) 565-2648. TTY access is available through Relay Texas: (800) 735-2989.

**REQUIRED TEXT, ARTICLES, AND COURSE MATERIALS**


**Unit 1: Syllabus & Course Introduction & Syllabus (August 31, 2016)**

Skinner (1953) Chapter 1: Can Science Help
   Chapter 2: A Science of Behavior

**Unit 2: Learning & Behavior (September 7, 2016)**

Skinner (1953) Chapter 3: Why Organisms Behave

**Unit 3: Taxonomy, Evolution, & Development (September 14, 2016)**

BACB Task List: FK01-FK09

Catania (2013) Chapter 2: A Behavior Taxonomy
   Chapter 3: Evolution & Development

**Unit 4: Reflexes & Respondent Behavior (September 21, 2016)**

(BACB Task List:: FK13-14; E-11)

Skinner (1953) Chapter 4: Reflexes & Conditioned Reflexes

**Unit 5: Operant Behavior (September 28, 2016)**

(BACB Task List: FK10-11; FK15-16; FK31; FK33)
Skinner (1953) Chapter 5: Operant Behavior

**Unit 6: Reinforcement & Extinction (October 5, 2016)**
(BACB Task List: FK17-18; FK22; C-01; C-03; D-01; D-18)

Catania (2013) Chapter 5: Consequences of Responding: Reinforcement
  Chapter 6: Reinforcers as Opportunities for Behavior

**Unit 7: Shaping & Differential Reinforcement (October 12, 2016)**
(BACB Task List: D-05; D-21)

Skinner (1953) Chapter 6: Shaping & Maintaining Operant Behavior
Catania (2013) Chapter 9: Operants: The Selection of Behavior
  Chapter 10: The Structure of Operants

**Unit 8: Discrimination & Stimulus Control (October 19, 2016)**
(BACB Task List: FK24-25; FK34-37; D-03; E-02; E-12)

Skinner (1953) Chapter 7: Operant Discrimination
  Chapter 8: The Controlling Environment
Catania (2013) Chapter 11: Discriminated Operants: Stimulus Control

**Unit 9: Conditional Discriminations & Stimulus Classes (October 26, 2016)**
(BACB Task List: FK12; E-06; E-13)

Catania (2013) Chapter 12: Conditional Discriminations & Stimulus Classes

**Unit 10: Punishment (November 2, 2016)**
(BACB Task List: FK19-20; C-02; D-15-17)

Skinner (1953) Chapter 12: Punishment
Catania (2013) Chapter 7: Consequences of Responding: Punishment
  Chapter 8: Consequences of Responding: Escape & Avoidance

**Unit 11: Deprivation, Satiation, & Motivating Operations (November 9, 2016)**
(BACB Task List: FK26-30)

Skinner (1953) Chapter 9: Deprivation & Satiation
Catania (2013) Chapter 14: Motivating Variables & Reinforcer Classes

**Unit 12: Schedules & Schedule Combinations (November 16, 2016)**
(BACB Task List: FK21; D-02; D-06; D-19-20)

Catania (2013) Chapter 15: Reinforcement Schedules
   Chapter 16: Schedule Combinations: Behavior Synthesis

**NO CLASS – THANKSGIVING (November 23, 2016)**

**Unit 13: Social Learning & Social Behavior (November 30, 2016)**

Skinner (1953) Chapter 19: Social Behavior

**Unit 14: Culture & Metacontingencies (December 7, 2016)**

Skinner (1953) Chapter 27: Culture & Control
   Chapter 28: Designing a Culture
   Chapter 29: The Problem of Control

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**Weekly Class Schedule**

<table>
<thead>
<tr>
<th>Session</th>
<th>Activities</th>
</tr>
</thead>
</table>
| 1       | *Unit 1: Review Syllabus; Course Introduction*  
Readings: Skinner (1953) Chapters 1 & 2 |
| 2       | *Unit 2: Learning & Behavior*  
Readings: Skinner (1953) Chapter 3; Catania (2013) Chapter 1  
**Guest Lecturer:** Dr. Katie Hine |
<table>
<thead>
<tr>
<th>Date</th>
<th>Unit</th>
<th>Readings</th>
<th>Guest Lecturer</th>
<th>In-Class</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 14, 2016</td>
<td>Unit 3: Taxonomy, Evolution, &amp; Development</td>
<td>Readings: Skinner (1984); Catania (2013) Chapters 2 &amp; 3</td>
<td>Guest Lecturer: Dr. Katie Hine</td>
<td>In-Class: Quiz 1 (Units 1-2)</td>
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<tr>
<td>September 21, 2016</td>
<td>Unit 4: Reflexes &amp; Respondent Behavior</td>
<td>Readings: Skinner (1953) Chapter 4; Catania (2013) Chapter 17</td>
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<td>In-Class: Project 1</td>
<td>Due: Microtheme 1</td>
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<tr>
<td>September 28, 2016</td>
<td>Unit 5: Operant Behavior</td>
<td>Readings: Skinner (1953) Chapter 1; Skinner (1931)</td>
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<td>In-Class: Quiz 2 (Units 1-4)</td>
<td>Due: In-Class Project 1</td>
</tr>
<tr>
<td>October 5, 2016</td>
<td>Unit 6: Reinforcement &amp; Extinction</td>
<td>Reading: Catania (2013) Chapters 5 &amp; 6; Johnston &amp; Pennypacker (1993) pp. 21-29</td>
<td></td>
<td>In-Class: Project 2</td>
<td>Due: Microtheme 2</td>
</tr>
<tr>
<td>October 12, 2016</td>
<td>Unit 7: Shaping &amp; Differential Reinforcement</td>
<td>Reading: Skinner (1953) Chapter 6; Catania (2013) Chapters 9 &amp; 10</td>
<td></td>
<td>In-Class: Quiz 3 (Units 1-6)</td>
<td>Due: In-Class Project 2</td>
</tr>
<tr>
<td>October 19, 2016</td>
<td>Unit 8: Operant Discrimination &amp; Stimulus Control</td>
<td>Reading: Skinner (1953) Chapters 7 &amp; 8; Catania (2013) Chapter 11</td>
<td></td>
<td>In-Class: Project 3</td>
<td>Due: Microtheme 3</td>
</tr>
<tr>
<td>October 26, 2016</td>
<td>Unit 9: Conditional Discriminations &amp; Stimulus Classes</td>
<td>Reading: Catania (2013) Chapter 12</td>
<td></td>
<td>In-Class: Quiz 4 (Units 1-8)</td>
<td>Due: In-Class Project 3</td>
</tr>
</tbody>
</table>
10 November 2, 2016

Unit 10: Punishment
Reading: Skinner (1953) Chapter 12; Catania (2013) Chapters 7 & 8
In-Class: Project 4
Due: Microtheme 4

11 November 9, 2016

Unit 11: Deprivation, Satiation, & Motivating Operations
Reading: Skinner (1953) Chapter 9; Catania (2013) Chapter 14
In-Class: Quiz 5 (Units 1-10)
Due: In-Class Project 4

12 November 16, 2015

Unit 12: Schedules & Schedule Combinations
Reading: Catania (2013) Chapters 15 & 16
In-Class: In-Class Project 5
Due: Microtheme 5

November 23, 2016

NO CLASS
Thanksgiving

13 November 30, 2016

Unit 13: Social Learning & Social Behavior
Reading: Skinner (1953) Chapter 19; Catania (2013); Malott, M. & Glenn (2006)
In-Class: Quiz 6 (Units 1-12)
Due: In-Class Project 5

14 December 7, 2016

Unit 14: Culture & Metacontingencies
Reading: Skinner (1953) Chapters 27, 28, & 29; Glenn et al. (2016)
In-Class: Interteaching & Clarifying Lecture

*The professor has the right to adjust and modify this schedule based on the needs of the students*