

**18:820:513:01 Basic Principles of Behavior Analysis
Fall 2021 Syllabus**

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Class meetings: Mondays 6:15–8:45 p.m.
Class location: Smithers Hall, Room 219
Office hours: By appointment

Description

18:820:513 Basic Principles of Behavior Analysis (3)

Presents the student with an introduction to the basic principles and historical overview of applied behavior analysis, learning theory, and the fundamental principles of science and behavior. Students will learn to distinguish between respondent and operant models of behavior and conditions. Concepts and principles of behavior including reinforcement, punishment, stimulus control, verbal behavior, and motivational operations will be defined and discussed in the context of behavioral learning theory in order to establish a theoretical foundation for applications in advanced-level courses.

BACB Task List

This course covers the “Concepts and Principles” Section of the Behavior Analyst Certification Board’s (BACB’s) 5th Edition Task List. For reference, those are listed below.

B. Concepts and Principles

- B-1 Define and provide examples of behavior, response, and response class.
- B-2 Define and provide examples of stimulus and stimulus class.
- B-3 Define and provide examples of respondent and operant conditioning.
- B-4 Define and provide examples of positive and negative reinforcement contingencies.
- B-5 Define and provide examples of schedules of reinforcement.
- B-6 Define and provide examples of positive and negative punishment contingencies.
- B-7 Define and provide examples of automatic and socially mediated contingencies.
- B-8 Define and provide examples of unconditioned, conditioned, and generalized reinforcers and punishers.
- B-9 Define and provide examples of operant extinction.
- B-10 Define and provide examples of stimulus control.
- B-11 Define and provide examples of discrimination, generalization, and maintenance.
- B-12 Define and provide examples of motivating operations.
- B-13 Define and provide examples of rule-governed and contingency-shaped behavior.
- B-14 Define and provide examples of the verbal operants.
- B-15 Define and provide examples of derived stimulus relations.

Readings and Recommended Texts

Required readings

1. Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

- a. <https://www.routledge.com/Behavior-Analysis-and-Learning-A-Biobehavioral-Approach-Sixth-Edition/Pierce-Cheney/p/book/9781138898585>
2. Articles and chapters have been (or will be) placed in a shared folder available on Canvas.

You are not required to purchase these books for class; however, I recommend that you obtain these as references.

1. American Psychological Association (2020). *Publication manual of the American Psychological Association* (7th ed.). <https://doi.org/10.1037/0000165-000>.
2. Strunk, W., Jr., & White, E. B. (2000). *The elements of style* (4th ed.). Needham Heights, MA: Allyn & Bacon.

Class Format

The format of the class will vary and may include group discussions, student presentations, and brief lectures.

1. Participation/discussion questions: The majority of class time will be spent discussing the assigned readings, which are listed on the schedule. Everyone is responsible for all readings and for contributing to the class discussions, which will involve discussion based on discussion questions emailed to me prior to class (see below).
2. Reading Quizzes (see below).

Participation

Everyone is responsible for all readings and contributing to class discussion. You will be graded on the quantity and quality of your participation.

Discussion Questions

To help prepare you for class discussion, you will write **two** discussion questions on the readings each week. Discussion questions are due via Canvas the Sunday before our Monday evening class. Please submit discussion questions using the “Discussions” tab in Canvas.

Each set of discussion questions is worth 10 points. Five points will be subtracted if the discussion questions are sent after they are due (see above). No points will be provided for discussion questions that are not received prior to class.

Some Do's and Don'ts for Writing Discussion Questions from Dr. Gregory Madden:

- Don't ask, “Do you agree with the authors?”
- Don't write a question concerned exclusively with a point made on the first page of the paper (your instructor will strongly suspect you did not read the entire article)
- Never ask, “What has been published since this paper was published?” Professors see this question frequently. So, it fails to distinguish you as a thoughtful student.

- Don't ask questions that sound like they would appear on an exam (e.g., "What single-subject design was used?").
- Don't ask questions about whether or not the subjects' gender affected their behavior. These are legitimate concerns (sometimes), but it is such a common question that it fails to set you apart as a thoughtful student.
- Don't ask questions that have "yes" or "no" answers.
- Don't submit single-sentence questions. On rare occasions, these receive good grades, but most of the time they do not.
- Run your question through a spell- and grammar-check program before submitting them. Errors of this kind make you look careless because they are easily avoided.
- Ask questions that require discussion. Said another way, your question should make the reader think and evaluate the evidence for or against a particular hypothesis, suggestion, theory, etc.
- Be specific and concrete. Once you have stated your basic idea/question, tell us why you think this. Are there some data in the article that led you to your idea/question? If so, tell us about them in concrete terms.
- Don't waste half of your writing space rehashing the findings of the study. We all read it, so just tell us the specific finding that you are interested in talking about.

Reading Quizzes

Because the course is discussion-based, it is imperative that students read the assigned content before each meeting. To facilitate this, you will respond to reading quiz questions at the start of class meetings. These questions are intended to verify that you read in preparation for the class meeting; they are not meant to be "tricky" or difficult. Questions will be general and answers should simply indicate that you read and understand the material. Free-response answers should be only 2–3 sentences each. Your instructor understands that everyone has an "off" week; thus, your lowest Reading Quiz score will be dropped at the end of the semester. Quizzes will be worth 10 points each.

Grading

Your course grade will be based on the following:

- a) Class participation: 30%
- b) Discussion questions: 30%
- c) Reading quizzes: 40%

Final letter grades will be assigned based on the percentage of available points earned. Please note that a "B" or higher is required to pass this course.

- A = 89.5%–100%
- B+ = 84.5%–89.49%
- B = 79.5%–84.49%
- C = 69.5%–79.49%
- F = 0%–69.49%

COVID-19 Pandemic Requirements

In order to protect the health and well-being of all members of the University community, masks must be worn by all persons on campus when in the presence of others (within six feet) and in buildings in non-private enclosed settings (e.g., common workspaces, workstations, meeting rooms, classrooms, etc.). Masks must be worn during class meetings; any student not wearing a mask will be asked to leave.

Masks should conform to CDC guidelines and should completely cover the nose and mouth: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html>

Each day before you arrive on campus or leave your residence hall, you must complete the brief survey on the My Campus Pass symptom checker self-screening app.

Student Success

The faculty and staff at Rutgers are committed to your success. Students who are successful tend to seek out resources that enable them to excel academically, maintain their health and wellness, prepare for future careers, navigate college life and finances, and connect with the RU community. Resources that can help you succeed and connect with the Rutgers community can be found at success.rutgers.edu, and nearly all services and resources that are typically provided in-person are now available remotely.

Disability Statement

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form (<https://webapps.rutgers.edu/student-ods/forms/registration>).

Tentative Class Schedule

This schedule will change throughout the semester. You will be provided advanced notice when schedule changes occur

Readings appear in their suggested reading order

Week 1 (9/13/21): Syllabus Review

Week 2 (9/20/21): A Science of Behavior

Chapter 1 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.
Chapter 1.

Skinner, B. F. (1966). What is the experimental analysis of behavior? *Journal of the Experimental Analysis of Behavior*, 9, 213–218

Sidman, M. (2011). Can an understanding of basic research facilitate the effectiveness of practitioners? Reflections and personal perspectives. *Journal of Applied Behavior Analysis*, 44, 973–991.

Week 3 (9/27/21): The Experimental Analysis of Behavior

Chapter 2 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Mace, F. C. (1996). In pursuit of general behavioral relations. *Journal of Applied Behavior Analysis*, 29, 557–563.

Week 4 (10/4/21): Reflexes and Classical Conditioning

Chapter 3 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Breland, K., & Breland, M. (1961). The misbehavior of organisms. *American Psychologist*, 16, 681–684.

Week 5 (10/11/21): Reinforcement and Extinction

Chapter 4 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Iwata, B. A., Pace, G. M., Cowdery, G. E., & Miltenberger, R. G. (1994). What makes extinction work: An analysis of procedural form and function. *Journal of Applied Behavior Analysis*, 27, 131–144.

Azrin, N. H., Hutchinson, R. R., & Hake, D. F. (1966). Extinction-induced aggression. *Journal of Experimental Analysis of Behavior*, 9, 191–204.

Week 6 (10/18/21): Schedules of Reinforcement

Chapter 5 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Perone, M. (2003). Negative effects of positive reinforcement. *The Behavior Analyst*, 26, 1–14.

Week 7 (10/25/21): Aversive Control and Ethics Surrounding its Use

Chapter 6 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Fontes, R. M., & Shahan, T. A. (2020). Punishment and its putative fallout: A reappraisal. *Journal of the Experimental Analysis of Behavior*, 115, 185–203.

Week 8 (11/1/21): Operant–Respondent Interrelationships

Chapter 7 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Donahoe, J. W. (2014). Evocation of behavioral change by the reinforcer is the critical event in both the classical and operant procedures. *International Journal of Comparative Psychology*, 27, 537–543.

Week 9 (11/8/21): Stimulus Control

Chapter 8 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Greer, B. D., Fisher, W. W., Saini, V., Owen, T. M., & Jones, J. K. (2016). Functional communication training during reinforcement schedule thinning: An analysis of 25 applications. *Journal of Applied Behavior Analysis*, 49, 105–121.

Fisher, W. W., Greer, B. D., Fuhrman, A. M., & Querim, A. C. (2015). Using multiple schedules during functional communication training to promote rapid transfer of treatment effects. *Journal of Applied Behavior Analysis*, 48, 713–733.

Week 10 (11/15/21): Choice and Preference

Chapter 9 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

DeLeon, I. G., Fernandez, N., Goldman, K. J., Schieber, E., Greer, B. D., & Reed, D. D. (in press). Behavioral economics: Principles and applications. In W. W. Fisher, C. C. Piazza, & H. S. Roane (Eds.), *Handbook of applied behavior analysis*. (2nd ed., pp. X–Y). New York: Guilford Press.

Week 11 (11/22/21): Conditioned Reinforcement

Chapter 10 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Shahan, T. A., & Cunningham, P. (2015). Conditioned reinforcement and information theory reconsidered. *Journal of the Experimental Analysis of Behavior*, 103, 405–418.

Week 12 (11/29/21): Imitation and Rule-Governed Behavior

Chapter 11 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Vosters, M. E., & Luczynski, K. C. (2020). Emergent completion of multistep instructions via joint control. *Journal of Applied Behavior Analysis, 53*, 1432–1451.

Week 13 (12/6/21): Verbal Behavior

Chapter 12 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.

Schlinger, H. D. (2008a). Listening is behaving verbally. *The Behavior Analyst, 31*, 145–161.

Week 14 (12/13/21): Relapse

Wathen, S. N., & Podlesnik, C. A. (2018). Laboratory models of treatment relapse and mitigation techniques. *Behavior Analysis: Research and Practice, 18*, 362–387.

Fisher, W. W., Greer, B. D., Craig, A. R., Retzlaff, B. J., Fuhrman, A. M., Lichtblau, K. R., & Saini, V. (2018). On the predictive validity of Behavioral Momentum Theory for mitigating resurgence of problem behavior. *Journal of the Experimental Analysis of Behavior, 109*, 281–290.

Greer, B. D., & Shahan, T. A. (2019). Resurgence as Choice: Implications for promoting durable behavior change. *Journal of Applied Behavior Analysis, 52*, 816–846.

Week 15 (12/20/21): Three Levels of Selection: Biology, Behavior, and Culture

Chapter 14 — Pierce, W. D., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge Press.