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Department of Applied Psychology  
Graduate School of Applied and Professional Psychology (GSAPP)  
Rutgers University  
New Brunswick, New Jersey  
Fall 2022

**18:820:513:02 Basic Principles of Behavior Analysis**

Credits: 3

Level: Graduate

Tuesdays, 3:35-6:05pm

Rutgers Center for Adult Autism Services, Multipurpose Room

Instructor: Julia Iannaccone, Ph.D., BCBA-D (she/her)

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Office Hours: By appointment

\*The instructor will make every reasonable effort to meet with students whenever necessary.

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**Rutgers University Mission:** As the premier comprehensive public research university in the state's system of higher education, Rutgers, The State University of New Jersey, has the threefold mission of

- providing for the instructional needs of New Jersey's citizens through its undergraduate, graduate, and continuing education programs;
- conducting the cutting-edge research that contributes to the medical, environmental, social, and cultural well-being of the state, as well as aiding the economy and the state's businesses and industries; and
- performing public service in support of the needs of the citizens of the state and its local, county, and state governments.

Each component of the university's mission reinforces and supports the other two.

As the University of New Jersey®, Rutgers is dedicated to teaching that meets the highest standards of excellence, to conducting research that breaks new ground, and to providing services, solutions, and clinical care that help individuals and the local, national, and global communities where they live.

**GSAPP Mission:** The mission of GSAPP is threefold: education, research/scholarship, and public service. Its goal is to prepare well-educated, qualified, and competent direct-service psychologists who have a special commitment to direct community involvement and to underserved populations--professionals who can integrate scientific knowledge with innovation in the delivery of psychological services to individuals, families, groups, and organizations. Professionals receiving a doctoral degree in psychology should be capable of extending psychological knowledge and exhibiting the high level of analytic skills and theoretical understanding needed to use existing and emerging psychological knowledge.

Core Values. We are guided by four core values that are apparent in our learning environment, centers, and clinics:

1. **Academic excellence** in preparing students for careers in clinical and school psychology.
2. Commitment to **social justice** and helping **underserved populations**.

3. **Diversity** of students trained, approaches used, theoretical orientations followed, and populations served.
4. **Knowledge generation and dissemination** using contemporary research approaches.

**Applied Psychology Statement:** The Department of Applied Psychology embraces the mission of the school by offering instruction that has an emphasis on civic and global citizenship, social justice, and cultural diversity. Our programs provide students with knowledge needed to understand individual and collective behaviors; develop quantitative and qualitative statistical analysis and research design needed to analyze the corresponding physical and environmental contributors to human behavior; and a beginning understanding of the analysis and treatment of behavior problems and disorders.

Our programs prepare students with the requisite theoretical knowledge; critical thinking and problem-solving skills needed to successfully participate in employment or scholastic activities. Students will have opportunities to pursue scholarly activities that prepares them to successfully compete for admissions into doctoral level psychology and related academic programs, and pursue master's level career pathways through available concentration and certificate. In general, students will acquire a knowledge base grounded in psychological theory and experiential learning (research or practicum) designed to further advance their personal and professional career development.

**Course Description:** This course 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 to establish a theoretical foundation for applications in advanced-level courses.

**Course Overview:** BACB Task List - This course covers the "Concepts and Principles" Section of the Behavior Analyst Certification Board's (BACB's) 5<sup>th</sup> Edition Task List.

The following concepts will be covered: behavior, response, response class, stimulus, stimulus class, respondent conditioning, operant conditioning, positive reinforcement, negative reinforcement, schedules of reinforcement, automatic reinforcement, socially mediated reinforcement, positive punishment, negative punishment, unconditioned reinforcers/punishers, conditioned reinforcers/punishers, operant extinction, stimulus control, discrimination, generalization, maintenance, motivating operations, rule-governed behavior, contingency-shaped behavior, basic verbal operants, derived stimulus relations.

**Objectives for the course:**

Objective 1: Describe both seminal and contemporary theory and research related to the philosophical underpinnings of Applied Behavior Analysis.

Objective 2: Define and provide examples of foundational concepts and principles associated with Applied Behavior Analysis.

Objective 3: Apply foundational concepts and principles and dimensions of Applied Behavior Analysis when reading, discussing, and writing.

### Assignments and Evaluation Method:

**Objectives** – Each week you will be given objectives. These will outline key terms you should be able to define, explain, and discuss, as well as key concepts from articles you should be able to explain and discuss. You are responsible for completing assigned readings and the provided objectives for each class period. Objectives will be posted on Canvas prior to class. They are designed to help guide your reading and direct your attention to important concepts. Answers to objectives will not be collected or graded each week, however they will be directly linked to material covered on quizzes and exams. Thus, providing high-quality, thoughtful responses in the objectives is to your advantage.

**Quizzes (20%)** – At the start of each class period there will be a quiz. Each quiz will contain about 5 open-ended questions. Quiz questions will be directly linked to the objectives for the relevant week. A practice quiz (ungraded) will be given on week 1 and all subsequent quizzes (starting week 2) will be graded. At the end of the semester the lowest 2 quiz grades will be dropped (if you miss a class, the 0 for that week will be dropped – this will account for up to 2 missed classes).

**Participation (20%)** – Discussions will occur during the second half of each class. Participation in each discussion will be graded on the scale below. At the end of the semester the lowest 2 participation grades will be dropped (if you miss a class, the 0 for that week will be dropped – this will account for up to 2 missed classes).

Criteria/Grade	100	85	75	65	55
<b>Participation</b>	Fully actively engages discussion.	Generally attentive and participatory.	Limited attention and participation, but no distracting behaviors.	Poor/no participation. Inattentive as evidenced by distracting behaviors. Takes frequent or long breaks	Absent

**Exams (60%)** – There will be a mid-term exam on week 8 and a final exam at the end of the semester. Exam questions will be directly linked to the objectives.

### Missed Work

If, due to an absence, you miss:

- A quiz – this will count towards your two lowest quiz scores being dropped
- A participation grade – this will count towards your two lowest participation grades being dropped
- An exam – exam makeups will only be offered for extenuating circumstances; you will need to schedule a time with the professor to make it up.

The final grade will be determined and computed based on the following:

- Quizzes: 20%
- Participation: 20%
- Exams: 60%

### Grades and Grading Policy

Grade	Description	Numerical Equivalent
A	Outstanding	90-100 (4.0)
B+	Intermediate Grade	87-89 (3.5)
B	Good	80-86 (3.0)
C**	Average	70-79 (2.0)*Grades of C or lower do not count toward graduation
F	Failure	69 or below (0.0)

INC	Incomplete
S	Satisfactory
U	Unsatisfactory
PA	Pass
NC	No credit given

**Program requirement:** All students in Applied Psychology courses must achieve a grade of B or better and maintain a GPA of 3.0, or academic remediation will be enforced.

**Required Text (available on Canvas in Reading List or Files)**

1. Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd. <https://www.wiley.com/en-us/An+Introduction+to+Behavior+Analysis-p-9781119126546>
2. Other readings will be placed in a shared folder available on Canvas.

**Class Schedule**

\*Schedule subject to changes, you will be notified of any changes

**Week 1 (9/6/22): Introduction to Behavior Analysis**

*Participation 1 & Quiz 1 (practice quiz; ungraded)*

**Textbook Reading**

Chapter 1 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd .

**Article Reading**

Baer, D.M., Wolf, M.M., & Risley, T.R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 1*(1), 91-97.

**Week 2 (9/13/22): Experimental Analysis of Behavior**

*Quiz 2 & Participation 2*

**Textbook Reading**

Chapter 2 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

**Article Readings**

Lambert, J.M., Lopano, S.E., Noel, C.R., & Ritchie, N.M. (2017) Teacher-conducted, latency-based functional analysis as basis for individualized levels system in a classroom setting. *Behavior Analysis in Practice 10*, 422-426.

Meaney-Daboul, M.G., Roscoe, E.M., Bourret, J.C., & Ahearn, W.H. (2007). A comparison of momentary time sampling and partial-interval recording for evaluating functional relations. *Journal of Applied Behavior Analysis, 40*(3), 501-514.

**Week 3 (9/20/22): Experimental Design**

*Quiz 3 & Participation 3*

**Textbook Reading**

Chapter 3 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

**Article Readings**

Kahng, S., Chung, K., Gutshall, K., Pitts, S.C., Kao, J., & Girolami, K. (2010). Consistent visual analysis of intrasubject data. *Journal of Applied Behavior Analysis, 43*(1), 35-45.

Lattimore, L.P., Parsons, M.B., & Reid, D.H. (2008). Simulation training of community job skills for adults with autism: A further analysis. *Behavior Analysis in Practice, 1*(1), 24-29.

**Week 4 (9/27/22): Respondent Conditioning***Quiz 4 & Participation 4***Textbook Reading**

Chapter 4 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

**Article Readings**

Friman, P.C., Hayes, S.C., & Wilson, K.G. (1998). Why behavior analysts should study emotion: The example of anxiety. *Journal of Applied Behavior Analysis*, 31(1), 137-156.

Siegel, S. (1977). Morphine tolerance acquisition as an associative process. *Journal of Experimental Psychology: Animal Behavior Processes*, 3(1), 1-13.

**Week 5 (10/4/22): Reinforcement***Quiz 5 & Participation 5***Textbook Readings**

Chapter 5 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

Chapter 6 – Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

**Article Readings**

Luczynski, K.C. & Hanley, G.P. (2010). Examining the generality of children's preference for contingent reinforcement via extension to different responses, reinforcers, and schedules. *Journal of Applied Behavior Analysis*, 43(3), 397-409.

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

**Week 6 (10/11/22): Extinction and Differential Reinforcement***Quiz 6 & Participation 6***Textbook Reading**

Chapter 7 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

**Article Readings**

Athens, E.S., & Vollmer, T.R. (2010). An investigation of differential reinforcement of alternative behavior without extinction. *Journal of Applied Behavior Analysis*, 43(4), 569-589.

Iwata, B.A., Dorsey, M.F., Slifer, K.J., Bauman, K.E., & Richman, G.S. (1994). Toward a functional analysis of self-injury. *Journal of Applied Behavior Analysis*, 27(2), 197-209.

**Week 7 (10/18/22): Primary and Conditioned Reinforcement & Shaping***Quiz 7 & Participation 7***Textbook Reading**

Chapter 8 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

**Article Readings**

Athens, E.S., Vollmer, T.R., & St. Peter Pipkin, C.C. (2007). Shaping academic task engagement with percentile schedules. *Journal of Applied Behavior Analysis*, 40(3), 475-488.

Fiske, K.E., Isenhower, R.W., Bamond, M.J., Delmolino, L., Sloman, K.N., & LaRue, R.H. (2015). Assessing the value of token reinforcement for individuals with autism. *Journal of Applied Behavior Analysis*, 48(2), 448-453.

**Week 8 (10/25/22): Midterm Exam**

### **Week 9 (11/1/22): Motivation, Reinforcer Efficacy, & Habit Formation**

#### *Quiz 8 & Participation 8*

#### **Textbook Reading**

Chapter 9 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

#### **Article Readings**

DeLeon, I.G., Fisher, W.W., Rodriguez-Catter, V., Maglieri, K., Herman, K., & Marhefka, J. (2001). Examination of relative reinforcement effects of stimuli identified through pretreatment and daily brief preference assessments. *Journal of Applied Behavior Analysis*, 34(4), 463-473.

Laraway, S., Snyckerski, S., Michael, J., & Poling, A. (2003). Motivating operations and terms to describe them: Some further refinements. *Journal of Applied Behavior Analysis*, 36(3), 407-414.

### **Week 10 (11/8/22): Punishment & Ethical Considerations of Its Use**

#### *Quiz 9 & Participation 9*

#### **Textbook Reading**

Chapter 10 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

#### **Article Readings**

DiGennaro Reed, F.D., & Lovett, B.J. (2008). Views on the efficacy and ethics of punishment: Results from a national survey. *Journal of Behavioral Consultation and Therapy*, 4(1), 61-67.

Hanley, G.P., Piazza, C.C., Fisher, W.W., & Maglieri, K.A. (2005). On the effectiveness of and preference for punishment and extinction components of function-based interventions. *Journal of Applied Behavior Analysis*, 38(1), 51-65.

### **Week 11 (11/15/22): Complex Contingencies of Reinforcement**

#### *Quiz 10 & Participation 10*

#### **Textbook Reading**

Chapter 11 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

#### **Article Readings**

Iannaccone, J.A., & Jessel, J. (2021). A translational comparison of contingency-based progressive delay procedure and their effects on contextually appropriate behavior. *Journal of Applied Behavior Analysis*, 54(1), 231-247.

Poling, A., & Normand, M. (1999). Noncontingent reinforcement: An inappropriate description of time-based schedules that reduce behavior. *Journal of Applied Behavior Analysis*, 32(2), 237-238.

### **Week 12 (11/29/22): Stimulus Control**

#### *Quiz 11 & Participation 11*

#### **Textbook Reading**

Chapter 12 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

#### **Article Readings**

Fisher, W.W., Kodak, T., & Moore, J.W. (2007). Embedding an identity-matching task within a prompting hierarchy to facilitate acquisition of conditional discriminations in children with autism. *Journal of Applied Behavior Analysis*, 40(3), 489-499.

Terrace, H.S. (1963). Errorless transfer of a discrimination across two continua. *Journal of the Experimental Analysis of Behavior*, 6(2), 223-232.

### **Week 13 (12/6/22): Choice**

*Quiz 12 & Participation 12*

#### **Textbook Reading**

Chapter 13 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

#### **Article Readings**

Borrero, C.S.W., Vollmer, T.R., Borrero, J.C., Bourret, J.C., Sloman, K.N., Samaha, A.L., & Dallery, J. (2010). Concurrent reinforcement schedules for problem behavior and appropriate behavior: Experimental applications of the matching law. *Journal of the Experimental Analysis of Behavior*, 93(3), 455-469.

Tiger, J.H., Hanley, G.P., & Hernandez, E. (2006). An evaluation of the value of choice with preschool children. *Journal of Applied Behavior Analysis*, 39(1), 1-16.

### **Week 14 (12/13/22): Verbal Behavior, Rule-Following, & Clinical Behavior Analysis**

*Quiz 13 & Participation 13*

#### **Textbook Reading**

Chapter 14 — Madden, G.J., Reed, D.D., & DiGennaro Reed, F.D. (2021). *An introduction to behavior analysis*. John Wiley & Sons Ltd.

#### **Article Readings**

Carbone, V.J., Sweeney-Kerwin, E.J., Attanasio, V., & Kasper, T. (2010). Increasing the vocal responses of children with autism and developmental disabilities using manual sign mand training and prompt delay. *Journal of Applied Behavior Analysis*, 43(4), 705-709.

Iannaccone, J.A., Hagopian, L.P., Javed, N., Borrero, J.C., & Zarcone, J.R. (2020). Rules and statements of reinforcer loss in differential reinforcement of other behavior. *Behavior Analysis in Practice*, 13(1), 81-89.

#### **Finals Week**

TBD – Tentatively December 20th at 3:35?

### **GSAPP and Applied Dept. Policies**

**Important Dates:** Add/Drop ends 9/15/22

#### **Attendance and Participation:**

Attendance and class participation are a major part of this class. You are expected to attend all classes and arrive on time. *Only two (2) excused/unexcused absences are permitted. Missing more than 2 classes will result in a 5%-point deduction for each additional day of absence from your final grade point.* If you are forced to miss an excessive amount of classes, you will be encouraged to withdraw from the class. Students who arrive to class more than 15 minutes after the class has started are considered tardy and will be marked absent if they arrive more than 30 minutes after class has started. After 3 late arrivals, an unexcused absence will be marked in your record. The only excused absences are those that are serious or required (e.g., personal medical emergencies or serious illness/injury; death or serious illness in the family; military duties; jury duty). If you miss class, you will be responsible for obtaining any missed material from a classmate.

### **Computer/Cell Phone Use in Class**

If students are expected to send or receive urgent e-mails, texts, or calls during class, their unanticipated and urgent needs should be communicated to and approved by the instructor prior to class. All cell phones should be turned off or in silent mode. All computing devices should be used only for the purpose of class-related activities.

### **Academic Integrity**

All Rutgers students should review and adhere to the University principles of academic integrity, available at: <http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers/>

**APA Citation Style.** All papers MUST be written using the APA style (7th ed.).

### **Student Resources**

**For more information visit:** <https://gsapp.rutgers.edu/current-students/important-links>

### **Accommodations due to Disability**

If you seek accommodations due to a documented disability, you may arrange for these through the Office of Disability Services, Kreeger Learning Center, 151 College Avenue; [dfoffice@rci.rutgers.edu](mailto:dfoffice@rci.rutgers.edu) or you can visit: <https://ods.rutgers.edu/students/documentation-guidelines>.

**Title IX:** <http://compliance.rutgers.edu/resources/resources-for-facultystaff/>

**Counseling services.** Students often experience personal problems or difficulties during the term that may interfere with learning and their daily activities. If you or someone you know needs to talk to someone regarding such personal issues, the University provides free counseling services through the Counseling and Psychological Services (CAPS) and their information can be found at: <http://psychologicalservices.rutgers.edu>. They also offer a number of useful workshops for general stress management and techniques for promoting mental health. If you have any questions about CAPS or other services, I am happy to speak with you privately.

### **Intellectual Property**

Lectures and materials utilized in this course, including but not limited to videocasts, podcasts, visual presentations, assessments, and assignments, are protected by United States copyright laws as well as Rutgers University policy. As the instructor of this course, I possess sole copyright ownership. You are permitted to take notes for personal use or to provide to a classmate also currently enrolled in this course. Under no other circumstances is distribution of recorded or written materials associated with this course permitted to any internet site or similar information-sharing platform without my express written consent. Doing so is a violation of the university's [Academic Integrity Policy](#).

Similarly, these copyright protections extend to original papers you produce for this course. In the event that I seek to share your work further, I will first obtain your written consent to do so. Finally, as the instructor for this course, I have the responsibility to protect students' right to privacy. Classroom recordings of students will therefore be treated as educational records under the Family Educational Rights and Privacy Act (FERPA), the U.S. federal law that governs access to educational information and records. Instructors and students must provide notification if any part of online sessions are to be recorded, and such recordings *cannot be circulated outside the course*.

### **Mask policy**

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-facecoverings.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. If you have questions about Rutgers University policies and practices, please see [Navigating Our Classrooms and Student Spaces](#)

### **Respect for Diversity**

It is my goal that students from all backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

*Important Note:* It is imperative that there be an atmosphere of trust and safety in the classroom. I will attempt to foster an environment in which each class member is able to hear and respect each other. It is critical that each class member show respect for all worldviews expressed in class. It is expected that some of the material in this course may evoke strong emotions, please be respectful of others' emotions and be mindful of your own. Please let me know if something said or done in the classroom, by either myself or other students, is particularly troubling or causes discomfort or offense. While our intention may not be to cause discomfort or offense, the impact of what happens throughout the course is not to be ignored and is something that I consider to be very important and deserving of attention. If and when this occurs, there are several ways to alleviate some of the discomfort or hurt you may experience:

1. Discuss the situation privately with me. I am always open to listening to students' experiences and want to work with students to find acceptable ways to process and address the issue.
2. Discuss the situation with the class. Chances are there is at least one other student in the class who had a similar response to the material. Discussion enhances the ability for all class participants to have a fuller understanding of context and impact of course material and class discussions.
3. Notify me of the issue through another source such as your advisor, a trusted faculty member, or a peer. If for any reason you do not feel comfortable discussing the issue directly with me, I encourage you to seek out another, more comfortable avenue to address the issue.

*-This statement was adapted from Lynn Hernandez, Behavioral and Social Sciences, School of Public Health, Brown University*