Rev. September 16, 2022



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

18:820:523:01 Applied Behavior Analysis & Autism Credits: 3

Level: Post Baccalaureate M, Th: 10:20 a.m. – 11:40 a.m.

Location: Nelson Biology Laboratories, D340b

Instructor: <u>SungWoo Kahng, Ph.D., BCBA-D</u> Office: Nelson Biology Laboratories, Rm D315

Phone: 848-445-8131

E-mail: <u>S.Kahng@rutgers.edu</u> Office Hours: By appointment

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

Course Description

Through weekly reading assignments, group discussions, and brief lectures, students will learn the principles and techniques currently employed to support individuals with autism spectrum disorder (ASD) acquire functional language, appropriate social behavior, and general academic and living skills, as well as decrease problematic behaviors. Students will have the option to participate in the coursework for Registered Behavioral Technician (RBT) certification.

Course Overview

This class will be conducted using an interteach format. Interteach is an alternative format to traditional lecture that was developed by Boyce & Hineline (2002) and has also been referred to as peer tutoring or peer teaching. Interteach has been demonstrated in research studies to be more effective than traditional lecture formats (Saville, Zinn, Neef, Norman, & Ferreri, 2006). Interteach consists of small group discussions based on study guides and readings, brief assessment, and brief lecture. Each class period will begin with 10-15 minutes of small group discussion, where students will work together in groups of 2-3 to discuss the reading materials for that class period. Each student will come prepared with a study guide to help drive the group discussion. After the discussion, the instructor will conduct a brief assessment using polling software and then will deliver a short lecture covering any content that the students may still need help with. Following the short lecture, the students will take a short question quiz based on the material for that day.

Because the much of class will be spent in small group discussion, it is vital that all students come to class prepared to discuss the readings. Students will complete study guides before each class period and will use those study guides in class to guide their discussions.

Objectives for the course:

The student will be able to:

- To identify and describe key features of applied behavior analysis (ABA), particularly as it applies to interventions for children with ASD
- To identify and describe key issues in curricular design, program development, and evidence-based interventions in ASD
- To become familiar with key outcome research in behavioral interventions for children with ASD
- To become familiar with key research on language, social skills, self-help skills, and problem behavior reduction as these areas relate to the behavioral treatment of ASD

Assignments and Evaluation Method:

<u>Study guides</u>: Students will complete and submit a study guide for each class period worth 5 pts. All study guides will be submitted electronically (via Canvas) by 11:59 p.m. on the day of class. This will give you the opportunity to make edits to the study guide based on class discussions. Students must bring a copy of the study guide to class, either electronically or a hard copy. The grading rubric for all study guides is as follows:

- $0 \rightarrow$ did not complete the study guide
- $3 \rightarrow$ study guide is incomplete with some inaccuracies
- 4→ study guide is complete with some inaccuracies OR study guide is accurate but incomplete
- $5 \rightarrow$ study guide is complete and accurate

<u>Group discussion</u>: Each class period will begin with a 10 to 15-minute small group (2-3 people) discussion. Students should make every effort to partner with different people each class period.

Study Guide Evaluation:

Starting in week 2, you will break up into groups of 2 or 3 to discuss the study guide. You will provide an evaluation of the discussion during your discussions after class. You will only receive points for completing the evaluation. I will be the only person to see the evaluations.

<u>Formative Assessment:</u> During each class period, a brief formative assessment will be given following the group discussion. This assessment will be given using polling software and will serve as a quick check to see if there is any content that the instructor should review via lecture before giving the quiz.

<u>Quizzes</u>: Students will take a short quiz at the end of each class period. Each quiz will be worth 10 points. The quizzes will cover the content for that class period (the readings and discussion from that day on the course schedule). The lowest quiz score will be dropped at the end of the semester. Each quiz will have 7 questions:

- 2 factual multiple choice, worth 1 pt each
- 2 factual fill-in-the blank, worth 1 pt each
- 2 factual short answer, worth 2 pts each
- 1 interpretive problem solving short answer, 2 pts each

Exams: Four in-class exams will be held on the dates shown in the course schedule. Exams will be worth 50 points each and will consist of multiple choice, fill-in-the blank, and short-answer questions. In order to be eligible to take the test, you must be in the classroom within 15 minutes of the class start time. In most cases, I will limit makeup exams to special circumstances (e.g.,

your hospitalization, death in immediate family, subpoenaed court appearance). If you think you are eligible for a makeup, check with me as soon as possible. If you know in advance (e.g., athletic participation, obligatory religious holidays, previously scheduled surgery), it is best for you to arrange to take the makeup before the scheduled exam date. I usually need to know <u>at least one week before the exam</u> to make such arrangements.

- <u>Exam content</u>. You are responsible for ALL course material. The exams concentrate on assigned chapters but later material depends on concepts presented earlier. Ordinarily, vocabulary and factual material make up the main content, but I might also ask details such as names of prominent researchers.
- <u>Exam review and return</u>. I will review an exam in the class immediately following an exam. I will only review items on which students did poorly overall. During office hours, I can show you a copy of the entire test. You will not be allowed to keep copies of the exams.

LockDown Browser

This course requires the use of LockDown Browser for quizzes and exams. For instruction on downloading the browser and using it to take quizzes and exams, go here: https://canvas.rutgers.edu/documentation/external-apps/rldb-monitor-students/

Research Article Summary: Each student will complete a 1-page summary of assigned research articles, worth 10 points. The summary should include brief descriptions of the following:

- 1. Rationale What is the background that made this study "necessary?"
- 2. Experimental question or, if applicable, the hypothesis In one statement, what is the research question that the investigators are trying to answer.
- 3. Experimental design What were the experimental arrangements used to answer that question and demonstrate experimental control?
- 4. Results
- 5. Take-home message Describe briefly how this experiment has added to our knowledge base. Specifically, how should we, as applied behavior analysts, alter our professional behavior in reaction to this experiment?
- 6. Limitations of the study what procedural or conceptual difficulties were encountered that may limit how firmly we should buy into the study's results.

The summary should be in your own words and not merely a copy of the manuscript.

Extra Credit: There may be opportunities to earn extra credit points throughout the semester. Bonus points will be added to the point total from exams or as separate assignments. Bonus points can be earned as part of the exams or announced IN CLASS ONLY.

<u>Questions affecting grades</u>. Grades for all assignments will be posted on Canvas (on a regular basis). <u>You should check your grades regularly</u> to insure against scoring or record-keeping errors. If you have questions affecting grades (e.g., discrepancies on Canvas, problem with an exam grade, alternative answer to a question, etc.), you should present it in writing (via email) and indicate if you think the resolution of the problem should apply only to you or to everyone in class.

Points and Grades

Assignment	Total Points
Study Guides (23 x 5 pts ea.)	115
Study Guide Evaluation (23 x pt each)	23
Quizzes (22 x 10 pts ea.)	220
Exams (4 x 50 pts ea.)	200
Research Article Summary (20pts)	10
Total Points:	568

Grades and Grading Policy

<u>Grade</u>	<u>Description</u>	Numerical Equivalent
A	Outstanding	90-100 (4.0)
B+	Intermediate Grade	87-89 (3.5)
В	Good	80-86 (3.0)
C	Average	70-79 (2.0)
F	Failure	69 or below (0.0)
INC	Incomplete	

Required Text:

- Miltenberger, R. G. (2015). *Behavior modification: Principles and procedures (6th Ed.)*. Boston, MA: Cengage Learning.
- Students can access other required readings through Canvas. Some journal articles are also available through the RU library website.

Suggested Texts:

• American Psychological Association. (2019). *Publication manual of the American Psychological Association (7th ed.)*. Washington, DC: Author.

Important Dates:

Please make sure to follow the GSAPP and RU academic calendars: https://gsapp.rutgers.edu/about/academic-administrative-calendar https://scheduling.rutgers.edu/scheduling/academic-calendar

Class Format

This is an in-person course. The expectation is that students will attend in person, unless there is a change made by the university and/or the instructor, which would be announced to the students in a timely fashion. Students must wear masks during class. Students NOT following this guideline will be asked to put on their masks or to leave class. Students drinking or eating during class must replace their masks quickly. Please do NOT attend class in person if you are experiencing symptoms of illness.

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 10 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 are serious or required (e.g., personal medical emergencies or serious illness/injury; death or serious illness in the family; military duties; jury duty). They will always require some form of documentation: Examples include a doctor's note (on letterhead and signed by the doctor); obituary or funeral program; court order/notice; etc.). You must always supply me with the original or a copy of your documentation, which I will keep on file. Only students with approved documentation can be given an excused absence.

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/

Student Resources

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

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).

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*.

FAQ

Will this be on the test?

This course is designed to teach you to apply the principles of BA/ABA. This means that all material covered throughout this semester is important to being a behavior analyst. The tests are necessary to measure your understanding of the material; however, I do not "teach to the test." The bottom line is that all content in this course is important.

What should I do if I'm having difficulty with the material?

You can/should ask questions in class because chances are other students may also have similar questions. Additionally, although I do not have specific office hours, I have an open door policy and anyone is welcome to come by. I'm generally in my office during the regular work hours and I'm more than happy to schedule an appointment to ensure that I'm available. In addition to meeting in person, you can call my office or send me an email. For suggestions on how to write an email, please go here https://www.insidehighered.com/views/2015/04/16/advice-students-so-they-dont-sound-silly-emails-essay.

I'm not able to get a copy of the reading in time. Can you send it to me? If, for some reason, you're unable to get the reading by class time, please ask your fellow students for assistance.

Will you write me a letter of recommendation for graduate school?

Normally, I'm happy to write recommendation letters for graduate school. However, I may decline your request if our only interaction has been one course. (Although there are exceptions such as you were an exceptional student in my course.) Generally, you should seek recommendation letters from faculty (and staff) who can provide a meaningful recommendation. Letters that clearly indicate the letter writer does not know you well will only hurt your application.

Semester Schedule

Week	<u>Semester Schedu</u> <u>Monday</u>	<u>Thursday</u>
9/5	Wk1a: No Class	Wk1b: Course Introduction
210	WRITE. TWO CHASS	WRIO. Course introduction
9/12	 Wk2a: Introduction to ABA Study Guide 01 Readings: Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. <i>Journal of Applied Behavior Analysis</i>, 1, 91-97. Miltenberger – Ch. 1, Introduction to Behavior Modification 	 Wk2b: Observation and Measurement Study Guide 02 Readings Miltenberger – Ch. 2, Observing and Recording Behavior Kahng, S., Ingvarsson, E., T., Quigg, A. M., Seckinger, K. E., & Teichman, H. M. (2011). Defining and measuring behavior. In W. W. Fisher, C. C. Piazza, & H. S. Roane (Eds.). Defining and measuring behavior (pp. 113-131). New York: Guilford Press.
9/19	Wk3a: Graphing and Measuring Behavior Change Study Guide 03 Readings Miltenberger – Ch. 3, Graphing Behavior and Measuring Change Foxylearning.com Tutorial: Mastering the Basics of Visual Analysis (open access; see Canvas for access information, select Free Preview)	Wk3b: Behavioral Principles - Reinforcement Study Guide 04 Readings • Miltenberger – Ch. 4, Reinforcement Higbee, T.S. (2009). Reinforcer identification strategies and teaching learner readiness skills. Pages 7-15 only.
9/26	 Wk4a: Behavioral Principles – Extinction Study Guide 05 Readings Miltenberger – Ch. 5, Extinction Cooper, Heron, & Heward (2008). Ch. 21 Extinction (pgs.456-464) Williams (1959). The elimination of tantrum behavior by extinction procedures. The Journal of Abnormal and Social Psychology, 59, 269. 	Wk4b: Behavioral Principles – Punishment Study Guide 06 Readings: Miltenberger – Ch. 6, Punishment Cooper, Heron, & Heward Ch. 14 Punishment by stimulus presentation (pgs. 326-338)
10/3	***MEET IN D302*** Wk5a: Exam 1	Wk5b: Introduction to Autism & Etiology Study Guide 07 Readings: Early Signs Video (link on Canvas) Autism Speaks, What is Autism? And Learn the Signs (link on Canvas)
10/10	Wk6a: Behavioral Interventions for Autism and Treatment Outcomes Study Guide 08 Readings: Granpeesheh, D., Tarbox, J., Dixon, D. R. (2009). Applied behavior analytic	***REMOTE*** Wk6b: Science vs Pseudoscience Study Guide 09 Readings:

	 interventions for children with autism: A description and review of treatment research. Annals of Clinical Psychiatry, 21, 162-173. Green, G., Brennan, L. C., & Fein, D. (2002). Intensive behavioral treatment for a toddler at high risk for autism. Behavior Modification, 26, 69-102. Makrygianni, M., K., Gena, A., Katoudi, S., & Galanis, P. (2018). The effectiveness of applied behavior analytic interventions for children with Autism Spectrum Disorder: A meta-analytic study. Research in Autism Spectrum Disorders, 51, 18-31. Smith, D. P., Hayward, D. W., Gale, C. M., Eikeseth, S., & Klintwall, L. (2019). Treatment gains from early and intensive behavioral intervention (EIBI) are maintained 10 years later. Behavior Modification. https://doi.org/10.1177/0145445519882895 	 Maurice, Green, & Luce (1996). Ch.2 Evaluating claims about treatments for autism Lerman et al., (2008). Using behavior analysis to examine the outcomes of unproven therapies: An evaluation of hyperbaric oxygen therapy for children with autism. <i>Behavior Analysis in Practice</i>, 50-58 Online videos (links on Canvas) Matt Broadhead: "Science or Snake Oil" PBS Frontline – Prisoners of Silence on Autism and Facilitated Communication.
10/17	<u>Wk7a: Exam 2</u>	***REMOTE*** Wk7b: Behavior Change—Stimulus Control & Prompting Study Guide 10 Readings: Miltenberger – Ch. 7, Stimulus Control: Discrimination and Generalization Miltenberger – Ch. 10, Prompting and Transfer of Stimulus Control
10/24	Wk8a: Behavior Change – Shaping & Chaining Study Guide 11 Readings: • Miltenberger – Ch. 9, Shaping • Miltenberger – Ch. 11, Chaining	***REMOTE*** Wk8b: Teaching New Skills—Play Study Guide 12 Readings: Wolfberg, P. J. (2003). Peer play and the autism spectrum (Chapters 1-2, pp. 3-33). Shawnee Mission, KS: Autism Asperger Publishing Co. (Ch. 1 only, pg. 1-18) D'Ateno, P., Mangiapanello, K., Taylor, B. A. (2003). Using video modeling to teach complex play sequences to a preschooler with autism. Journal of Positive Behavior Interventions, 5(1), 5-11. Akers, J. S, Higbee, T.S., Pollard, J. S., Pellegrino, A J., & Gerencser, K R. (2016). An evaluation of photographic activity schedules to increase independent playground

		skills in young children with autism. Journal of Applied Behavior Analysis, 49, 954-959.
10/31	 Wk9a: Teaching New Skills—Language Study Guide 13 Readings: Sundberg & Partington (1998). Appendix: A behavioral approach to language. Sundberg, M. L. & Michael, J. (2000). The Benefits of Skinner's analysis of verbal behavior for children with autism. Behavior Modification, 25, 698-724. Sundberg & Partington (1998). Ch. 13 The need for both discrete trial and natural environment training. 	 Wk9b: Teaching New Skills – Social Skills Study Guide 14 Readings: Taylor, B. A. (2001). Teaching peer social skills to children with autism. In C. Maurice, G. Green, & R. M. Foxx (Eds.), Making a difference: Behavioral interventions for autism (pp. 83-96). Austin: Pro-Ed. Betz. A. M., Higbee, T. S., & Reagon, K. A. (2008). Using joint activity schedules to promote peer engagement in preschoolers with autism. Journal of Applied Behavior Analysis, 41, 237-241. Brown, J. L., Krantz, P. J., McClannahan, L. E., & Poulson, C. L. (2008). Using script fading to promote natural environment stimulus control of verbal interactions among youths with autism. Research in Autism Spectrum Disorder, 2, 480-497.
11/7	Wk10a: Exam 3	 Wk10b: Reducing Problem Behaviors – Introduction to Problem Behaviors and Behavioral Assessments Study Guide 15 Readings: Miltenberger – Ch. 13, Understanding Problem Behaviors through Functional Assessment Iwata, Dorsey, Slifer, Bauman, & Richman (1982/1994). Towards a functional analysis of self-injury. Journal of Applied Behavior Analysis, 27, 197-209. (Optional) Kahng, S., & DeLeon, I. G. (2007). Behavior management. In P. J. Accardo (Ed.), Capute & Accardo's Neurodevelopmental Disabilities in Infancy and Childhood: Vol. 1 Neurodevelopmental Diagnosis and Treatment (3rd Edition, pp. 553-576). Baltimore, MD: Paul H. Brookes Publishing Co.
11/14	Wk11a: Reducing Problem Behaviors – Behavioral Treatment: Extinction	Wk11b: Reducing Problem Behaviors – Behavioral Treatment: Dif Reinforcement

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	 Study Guide 16 Readings: Miltenberger – Ch. 14, Applying Extinction Iwata, B. A., Pace, G. M., Cowdery, G. E., & Miltenberger, R. G. (1994). What makes extinction work: An analysis of procedural form and function. <i>Journal of Applied</i> Behavior Analysis, 27, 131-144. 	 Study Guide 17 Readings: Miltenberger – Ch. 15, Differential Reinforcement Carr, E. G., & Durand, V. M. (1985). Reducing behavior problems through functional communication training. Journal of Applied Behavior Analysis, 18, 111-126.
11/21	Wk12a: Reducing Problem Behaviors — Behavioral Treatment: Antecedent Study Guide 18 Readings: Miltenberger – Ch. 16, Antecedent Control Procedures Vollmer, T. R., Iwata, B. A., Zarcone, J. R., Smith, R. G., & Mazaleski, J. L. (1993). The role of attention in the treatment of attention-maintained self-injurious behavior: Noncontingent reinforcement and differential reinforcement of other behavior. Journal of Applied Behavior Analysis, 21, 9-21.	Wk12b: No Class – Thanksgiving Break
11/28	Wk13a: Reducing Problem Behaviors – Behavioral Treatment: Punishment Study Guide 19 Readings: Miltenberger – Ch. 17, Using Punishment: Time-out and Response Cost Miltenberger – Ch. 18, Positive Punishment Procedures and the Ethics of Punishment Vollmer, T. R. (2002). Punishment happens: Some comments on Lerman and Vorndran's review. Journal of Applied Behavior Analysis, 35, 469-473	 Wk13b: Problem Behaviors – Application of ABA in Clinical Settings Study Guide 20 Readings: Miltenberger – Ch. 22, The Token Economy Miltenberger – Ch. 23, Behavioral Contracts Barrish, Saunders, & Wolf (1969). Good behavior game: Effects of individual contingencies for group consequences on disruptive behavior in a classroom. Journal of Applied Behavior Analysis, 2, 119-124 *Research summary due*
12/5	Wk14a: Behavioral Treatment: Training, Generalization, Social Validity, and Treatment Integrity Study Guide 21 & 22 Readings: • Miltenberger – Ch. 12, Behavioral Skills Training Procedures • Miltenberger – Ch. 19, Promoting Generalization • Wolf, M. M. (1978). Social Validity: The case for subjective measurement or how	Wk14b: Ethics TBD

 applied behavior analysis is finding its heart. <i>Journal of Applied Behavior Analysis</i>, 11, 203-214. Hanley, G. P. (2010). Toward effective and preferred programming: A case for the objective measurement of social validity with recipients of behavior-change programs. <i>Behavior Analysis and Practice</i>, (3)1, 13-21. Fryling, M. J., Wallace, M. D., & Yassine, J. N. (2012). Impact of treatment integrity on intervention effectiveness. <i>Journal of Applied Behavior Analysis</i>, 45, 449-453 	
<u>Wk15a: Exam 4</u>	
	1
Finals week: OPTIONAL LECTURE FOR RBT TRAINING Readings: Bailey & Burch (2010). Ch. 1 Business Etiquette Bailey & Burch (2010). Ch. 7 Ethics in daily life Bailey & Burch (2010). Ch. 20 Knowing when to seek help (and how	
	heart. Journal of Applied Behavior Analysis, 11, 203-214. Hanley, G. P. (2010). Toward effective and preferred programming: A case for the objective measurement of social validity with recipients of behavior-change programs. Behavior Analysis and Practice, (3)1, 13-21. Fryling, M. J., Wallace, M. D., & Yassine, J. N. (2012). Impact of treatment integrity on intervention effectiveness. Journal of Applied Behavior Analysis, 45, 449-453 Wk15a: Exam 4 Finals week: OPTIONAL LECTURE FOR RBT TRAINING Readings: Bailey & Burch (2010). Ch. 1 Business Etiquette Bailey & Burch (2010). Ch. 7 Ethics in daily life