

Introduction to Analysis and Single-Case Design

Department of Applied Psychology
Graduate School of Applied and Professional Psychology (GSAPP)
Rutgers University, New Brunswick
18:820:512:80, Fall 2025

- Instructor:** Robert W. Isenhower, Ph.D., BCBA-D (he/him)
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Office Phone: (848) 932-4500
- Time/Place:** Monday, 5:00-7:30 PM: Tadie Conference Room at Eden School (2 Merwick Rd., Princeton, NJ)
- Office/Hours:** Office: DDDC, 151 Ryders Lane, New Brunswick, NJ 08901
Hours: M 4:15-4:45 PM, W 2:15-3:15 PM, and by appointment
***The instructor will make every reasonable effort to meet with students whenever necessary. Meetings may be held over Zoom or in person. Please email me to schedule.
- Purpose:** This course introduces you to the process of analysis using baseline logic and learning how it applies to single-case methodology. Provides an overview of behavior measurement and recording, visual analysis, and graphing. Basic single-case research designs will be discussed, including general characteristics, strengths, and considerations. General issues regarding internal and external validity will be explored, as well as ethical considerations in research design and implementation. Students will practice applying the principles of research design and ethics to the interpretation of research literature.
- Outcomes:** At the end of this course, you will be able to:
1. State the principles of baseline logic.
 2. Describe the process of planning and directing behavior recording procedures.
 3. Identify key features of visual data display and analysis.
 4. Identify and describe advantages and disadvantages of basic single-case designs.
 5. Discuss issues in planning, replicating, evaluating, and disseminating ABA research.
 6. Describe ethical principles as they related to ABA research.
 7. Interpret research articles from the behavior analytic literature.

Text/Readings:

Kazdin, A. E. (2021). *Single-case research designs: Methods for clinical and applied settings (3rd edition)*. Oxford University Press.

[Behavior Analyst Certification Board. Test Content Outline 6th ed \(2022\)](#)

Other readings are available on Canvas (See reading list at the end of the syllabus). These readings will facilitate discussion and allow further exploration of the topic.

Assessments:**Exams**

There are two exams in this course, one in Week 7 and another in Week 15. Exams will mainly be composed of **multiple-choice** (to simulate the BACB exam) and **short-answer** questions. Test material will be based on the assigned readings and the lectures. Any make-up exams must be scheduled in advance of the exam date and may follow a different format.

Objective Questions

Objective questions about the readings are posted on Canvas. Answer these questions and prepare to discuss them at the beginning of and/or during class. Questions are to be worked on individually. These questions are to facilitate class discussion and are considered homework. They are therefore due **prior to** the beginning of class.

In-Class Activities

Most weeks, we will engage in an in-class activity to help bring some of the course concepts to life. You **must be present** to earn credit for each in-class activity.

Research Proposal

Each student will be required to complete a 5–8-page paper (double-spaced) outlining a hypothetical behavior analytic study. Because this is a proposal, you will use future tense in your writing.

Components of the paper:

1. Introduction
 1. Purpose/Background: Provide a brief description of the purpose of the proposal.
 2. State your research question.
 3. Be sure to describe the relevant literature on your target behavior and independent variable.
2. Method
 1. Participants, Setting, and Materials: Where you will run the student and with whom? What will you need to complete the study?

2. Measurement: What is your operational definition? How will you score it? How will you measure interobserver agreement and treatment integrity?
3. Research Design: Which design (e.g., multiple baseline, reversal) and why?
4. Procedure: How will you conduct sessions?
3. Results
 1. Graph of hypothetical results.
 2. You should be able to discuss BASELINE LOGIC (prediction, verification, replication) for your design/results.
4. References
5. APA style & grammar

APA Citation Style: All papers MUST be written using APA style (7 ed.).

Important Note: Plagiarism essentially means that you cannot use the words and ideas of another person without giving them credit. Therefore, “quotation marks” should be used to indicate the exact words of another. That said, exact quotes should be kept to a minimum. Rather, each time you paraphrase another author, you will need to credit the source in the text. If you have any questions about what constitutes cheating or plagiarism, please see me. Students who plagiarize any material will earn a grade of F for the course. Please see the section on “academic integrity” below.

Presentation

Each student will deliver a presentation summarizing their proposal for the class. Students should use PowerPoint slides for the presentation and be prepared to discuss. Presentations will occur during Week 14 of the course.

Grading:

Assessment Tool (Category)	Percentage
Exams (x2)	40%
Objective Questions	15%
(In-class) Activities	15%
Research Proposal	20%
Presentation	10%
Total	100%

The following grading standards will be used in this class.

Grade	Description	Numerical Equivalent
A	Outstanding	89.5-100 (4.0)
B+	Intermediate grade	86.5-89.4 (3.5)
B	Good	79.5-86.4 (3.0)
C	Grades of <u>C</u> do not count toward graduation	69.5-79.4 (2.0)
F	Failing	69.4 or below (0.0)
INC	Incomplete	

- Standards:** All MABA students must achieve a grade of B or better and maintain a GPA of 3.0, or academic remediation will be enforced.
- Timeliness:** Be sure to pay close attention to deadlines. Late work may be accepted with a serious and compelling reason and approval. However, assignments submitted after the due date may be subject to a 10% penalty per day (with a 24-hour grace period).
- Technology:** If students expect to send or receive urgent emails, texts, or calls during class, their needs should be communicated to the instructor before class. All cell phones should be turned off or placed in silent mode. All computing devices should be used only for class-related activities.
- Email:** Prompt communication is essential. I will try my best on weekdays to respond to emails within 18 hours. Over the weekend, please allow 24-36 hours for a response.
- GSAPP Diversity:** The Graduate School of Applied and Professional Psychology (GSAPP) at Rutgers University-New Brunswick is committed to diversity, equity, and inclusion (DEI). We view individuals from a variety of backgrounds, lived-experiences, identities, and perspectives across our community members as critical to our threefold mission of world-class education, scholarship, and public service. We aim to honor diversity through a variety of means, such as inclusive groups, events, initiatives, curricula, and our organizational composition. We strive to create and maintain a safe space in which all voices are heard and valued, consistent with Rutgers University's Beloved Community. GSAPP acknowledges the current, historical, and systemic practices that have been used to marginalize and oppress some identities and give power and privilege to others in and beyond the United States. Additionally, we are keenly aware of the destructive effects, including on mental health and personal well-being, of prejudice, stigma, microaggressions, and violence in all its forms. We engage in a critical examination of our own

biases and behaviors, both past and present. We utilize evolving methods to address, incorporate, and celebrate DEI through our scholarship, service, and training of future health service professionals.

- Accessibility:** Rutgers University welcomes students with disabilities into all 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 they 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>
- Integrity:** <http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers/>
- Generative AI:** **Restricted and Cited Use of Generative AI:** Generative AI (e.g., ChatGPT, Gemeni, etc.) may be allowed under specific conditions that support student learning outcomes (SLOs), provided its use enhances rather than substitutes for learning. To ensure transparency and accurate assessment of SLOs, students must disclose any Generative AI assistance, allowing evaluations to reflect both their knowledge and the extent of generative AI usage. Students who misuse ChatGPT and similar programs are seeking to gain an unfair advantage, which means they are committing academic dishonesty (see above). That said, I encourage the use of [Grammarly](#) when writing, which Rutgers gives you for free.
- Resources:** <https://gsapp.rutgers.edu/current-students/important-links>
- Title IX:** <http://compliance.rutgers.edu/resources/resources-for-facultystaff>
- Counseling:** Students often experience personal problems or difficulties during the term that may interfere with learning and 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>. There are also helpful 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.

WEEKLY SCHEDULE

Modules/Meetings	Topics/Readings	Assignments/Activities
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Week 0	Start Here	Introduce Yourself Syllabus Quiz
Week 1 9/9	Introduction to Single Case Design and Analysis Kazdin Ch 1 (pp. 1-4) Baer, Wolf, & Risley (1968)	Course Introduction In-class: Seven dimensions of ABA
Week 2 9/15	Error in Research & Threats to Validity Kazdin Ch 1 (pp. 5-28) Kazdin Ch 2 Baer (1977)	Objective Questions (OQ) 1 In-class: Threats to Validity
Week 3 9/22	Assessment Considerations & Data Collection Basics Kazdin Ch 3 Kazdin Ch 4 LaBlanc et al (2016)	OQ 2 In-class: Data Recording Activity
Week 4 9/29	Integrity of the Dependent & Independent Variables Kazdin Ch 5 Vollmer et al (2008)	OQ 3 Proposal idea due In-Class: IOA Activity
Week 5 10/6	Graphical Data Displays Kadzin Ch 13 (pp. 340-352)	OQ 4 In-class: Graphing in Excel
Week 6 10/13	Introduction to Visual Inspection Kadzin Ch 13 (pp. 353-387) Review	OQ 5 In-class: Estimating Trend
Week 7 10/20		Exam 1 (in-class)
Week 8 10/27	Baseline Logic ABAB/Reversal Designs Kazdin Ch 6 Rehfeldt & Chambers (2003) Tasky et al. (2008)	OQ 6 In-class: Article Analysis I
Week 9 11/3	Multiple Baseline Designs & Probe Designs Kazdin Ch 7 Kazdin Ch 10	OQ 7 In-class: Article Analysis II

	Gil et al (2019) Sarakoff & Sturmey (2004)	In-class peer review I: Method & Results
Week 10 11/10	Changing Criterion Designs & Multielement/Alternating Treatment Designs Kazdin Ch 8 Kazdin Ch 9 Allen & Evans (2001)	OQ 8 In-class: Article Analysis III
Week 11 11/17	Additional Design Options Kazdin Ch 11 Kazdin Ch 12 Cannella-Malone et al (2006)	OQ 9 In-class: Article Analysis IV In-class peer review II: Complete draft
Week 12 11/24	Evaluation of Data & Design Kazdin Ch 15 Kazdin Ch 16	OQ 10 In-class: Data Evaluation
Week 13 12/1	Summing Up Kazdin Ch 17	Final Research Proposal Due
Week 14 12/8	Review	In-class: Presentations
Week 15 12/15		Exam 2 (in-class)

NOTE: The dates assigned to each topic are approximate. Instructor reserves the right to modify aspects of the course (e.g., readings) during the semester to better serve the needs of the students.

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 provide

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.

MABA Statement

The Master of Applied Behavior Analysis (MABA) Program in the Department of Applied Psychology at GSAPP trains students to become highly-skilled behavior analysts who apply evidence-based behavioral interventions that promote independence and address the behavioral challenges of individuals in need. This program perfectly aligns with Rutgers University's and GSAPP's mission to train professionals who can integrate scientific knowledge with innovation in delivering clinical care that helps individuals and the local, national, and global communities where they live. Students learn through coursework and real-world experiences in clinical, school, healthcare, and community-based settings. Graduates will be well-educated, qualified, and competent direct-service behavior analysts and clinical researchers with a special commitment to direct community involvement and underserved populations.

Students who enter our program will receive a 42-credit Master of ABA degree, which includes a strong **foundation** in conceptual knowledge alongside education and training in **applied** areas of behavior analysis.

- The **foundation** comprises the theory, philosophy, and science of ABA as well as our school's values--civic and global citizenship, social justice and helping the underserved, and cultural responsiveness. We expect that these values will become the lens through which students view human interactions and will be emphasized in their supervision groups.
- The **applied** emphasis of the program includes opportunities for students to receive training in socially significant areas of behavior analysis, participate in a practicum, and have opportunities to integrate their didactic and applied learning experiences. This program will prepare graduates to become BCBAs who can independently practice ABA or continue their education to obtain their doctorate in behavior analysis.