



Master of Applied Psychology (MAP)
Graduate School of Applied and Professional Psychology (GSAPP)
Rutgers University
New Brunswick, New Jersey
Fall 2021

Introduction to Analysis and Single-Case Design
18:820:512
Credits: 3
Level: Graduate
Mondays 3:35 pm to 6:05 pm
[Nelson D340](#)

Instructor: Robert H. LaRue, Ph.D.

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Office Hours: By appointment

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

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.

MAP Statement: The program embraces the mission of the school by offering instruction that has an emphasis on civic and global citizenship, social justice and cultural diversity. This course of study provides 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.

The MAP degree will 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 programs (see examples of concentration areas listed below). In addition to completing the required coursework (36 credits), completion of the MAP degree will be marked by a culminating academic experience—Capstone project (either a research project/presentation (3 credits) and experiential learning activity (6-credit practicum training). 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/Overview:

This course will introduce the student to the process of analysis utilizing baseline logic and how it applies to single-case methodology. The course will provide an overview of behavior measurement and recording, and 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 discussed, as well as ethical considerations in research design and implementation. Students will practice applying the principles for research design and ethics to the interpretation of research literature

Objectives for the course:

The student 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 or 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

Assignments and Evaluation Method:

Mid-Term Exam	30%
Final Exam (cumulative)	40%
Paper/Presentation	20%
Attendance/Homework	10%

Homework:

Rather than submitting a homework question each week prior to class, you will complete homework questions assigned by the instructor. These questions are based on the readings assigned for the upcoming class. Students can bring hard copies of their questions to class or email them to me.

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 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 MAP and Graduate Certificate in ABA students must achieve a grade of B or better and maintain a GPA of 3.0, or academic remediation will be enforced

Required Text:

Kazdin, A. E. (2011). Single-Case research Designs: Methods for Clinical and Applied Settings. New York, NY: Oxford University Press. Boston, MA: Allyn & Bacon.

Additional articles to be assigned throughout the semester as needed.

Course Outline:**Week 1 (9/13):** Course Overview**Week 2 (9/20):** Introduction to Single Subject Design and Analysis

- Assigned Readings
 - Kazdin: Chapter 1: Introduction and Historical Perspective
 - Kazdin: Chapter 2: Underpinnings of Scientific Research
 - Baer D. M. (1977). Perhaps it would be better to not know everything. *Journal of Applied Behavior Analysis*, 10, 167-172.

Week 3 (9/27): Behavioral Assessment

- Assigned Readings
 - Kazdin: Chapter 3: Background and Key Measurement Considerations
 - Kazdin: Chapter 4: Methods of Assessment

Class 4 (10/4): Reliability/IOA

- Assigned Readings
 - Cooper: Chapter 5
 - Kazdin, A. E. (1977). Artifact, bias, and complexity of assessment: The ABCs of reliability. *Journal of Applied Behavior Analysis*, 10, 141-150.

Class 5 (10/11): Issues in the Quality of Behavior Measurement

- Assigned Readings
 - Graphic Data Displays - Cooper et al, Chapter 6
 - Bring laptops

Class 6 (10/18): Midterm Review**Class 7 (10/25):** Midterm Examination**Class 8 (11/1):** Reversal Designs

- Cooper et al, Chapter 8 part 1
- Kazdin: Chapter 6: Introduction to Single Case Research and ABAB Designs.

Class 9 (11/8): Multiple Baseline Design/Changing Criterion Designs

- Assigned Readings
 - Cooper: Chapter 9
 - Kazdin: Chapter 7: Multiple Baseline Designs
 - Kazdin: Chapter 8: Changing Criterion Designs

Class 10 (11/15): Alternating Treatment Designs/Additional Design Options

- Assigned Readings
 - Cooper et al, Chapter 8 part 2
 - Kazdin: Chapter 9: Multiple Treatment Designs
 - Kazdin: Chapter 10: Additional Design Options
 - Kazdin: Chapter 11: Quasi-Experimental Designs

Class 11 (11/22): Evaluating Single-case Data

- Assigned Readings
 - Kazdin: Chapter 12: Data Evaluation
 - Kazdin: Chapter 13: Graphic Display of Data for Visual Inspection
- Suggested Readings
 - Hagopian, L.P., Fisher, W.W., Thompson, R.H., Owen-DeSchryver, J., Iwata, B.A., Wacker, D.P. (1997). Toward the development of structured criteria for interpretation of functional analysis data. *Journal of Applied Behavior Analysis, 30(2)*, 313-25.
 - Kahng, S., Chung, K. M., Gutshall, K., Pitts, S. C., Kao, J.& Girolami, K. (2010). Consistent visual analyses of intrasubject data. *Journal of Applied Behavior Analysis, 43*, 35-45.

Class 12 (11/29): Perspectives and Contributions of the Designs

- Assigned Readings
 - Kazdin: Chapter 14: Evaluation of Single-Case Subject Designs: Challenges, Limitations, and Directions
 - Kazdin: Chapter 15: Summing Up: Single-Case Research in Perspective
 - Case presentations

Class 13 (12/6): Case Presentations**Class 14 (12/13): Course Review (Paper due)/Case presentations****Class 15 (12/20): Final Examination****Research Proposal/Presentation**

Research Proposal: Each student will be required to complete a 4-6 page paper (double-spaced) outlining a hypothetical study. Because this is a proposal, you will use future tense in your writing.

Components of the paper:

1. Introduction
 - a. Purpose/Background: Brief description of the purpose of the proposal
 - b. State your research question
2. Methods
 - a. Participants/Setting: Where you will run the student and with who
 - b. Measurement: What are you going to measure?
 - c. Research Design: Which design (e.g., multiple baseline, reversal)?
 - You should be able to discuss BASELINE LOGIC for your design
 - d. Procedure: How will it look when it runs?
 - e. Dummy Data: What you think the data might look like?

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. 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.

Presentation: Each student will do a 5-10 minute presentation summarizing their proposal for the class. Students should use Powerpoint slides for the presentation and be prepared to discuss.

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/>
APA Citation Style. All papers MUST be written using the APA style (6 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 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.