PSY 550: Research in Applied Settings
Spring/Summer 2025

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Office hours:	By appointment	By appointment
Meeting location:	Online through Blackboard	

COURSE DESCRIPTION
This course focuses on behavioral research methodologies to evaluate interventions in applied settings. Students will be taught to use single-case study methodologies to assess various dimensions of behavior and to evaluate the effects of treatment interventions on those behaviors.

COURSE OBJECTIVES

Upon successful completion of this course, students will be able to:
1. Describe the rationale and process for evaluating interventions implemented in applied settings.
2. Understand the similarities and differences between single subject and group designs.
3. Select single-case designs based on a research or treatment question.
4. Use single-subject experimental design to develop methods to evaluate the effectiveness of interventions.
5. Explain the process of visual data analysis and interpret graphically represented data.
6. Demonstrate an understanding of ethical principles in research and treatment evaluation.
7. Analyze and draw inferences from applied research articles that depict the use of various treatment designs.

READING MATERIALS

Books:
Riley-Tillman, T.C., Burns, M.K., & Kilgus, S.P. (2020). *Evaluating educational interventions: Single Case Design for measuring Response to Intervention* (2nd ed.). New York, NY: Guilford Press.

OTHER INFORMATION

Required Equipment (owned or accessible)
- High-speed internet access
- Operating system that meets current Blackboard browser requirements (see below)
- Computer with a sound card and speakers
- Microphone (built in or external)
- Computer camera for synchronous meetings (most laptops have a camera)

Blackboard Ultra is the Course Management System
This course utilizes Blackboard Ultra, GVSU's online course management system. Take a look at the GVSU Online Learning pages to find numerous materials about online learning: http://www.gvsu.edu/online/. GVSU's I.T. Department has also compiled Student resources related to Blackboard Ultra which may help you find answers to some of your questions.

Use of Blackboard is integral to this course and students must log on a few times each week in order to complete course requirements, receive important announcements and updates, and communicate with instructors and other students about course content.

Check the current technical requirements to use Blackboard and preferred browser information.

Technical difficulties with Blackboard
If you experience technical problems with Blackboard, contact the help desk by email or phone - helpdesk@gvsu.edu or 616-331-3513. The help website is https://www.gvsu.edu/it/

Accessing the Library
Many of GVSU's library resources can be accessed online through Distance and Off-Campus Learning Services, including many journal articles available on demand. You must have an active GVSU student account to take advantage of the library's resources and services.
Some courses may have reading materials in course reserve. To access course reserve, click here.

Writing Center
Graduate Writing Resources are available to assist with all kinds of writing tasks, and these resources are not just available for students who struggle with writing. They can help any student improve writing skills.

Accommodations for Students with Disabilities
If you need specific accommodations and you have a documented disability, you will need to contact the Disability Support Resources Office to coordinate accommodations. If you plan to request accommodations in this course, please let us know right away so we can assist you.

Course Organization and Assignments

Learning Units (2-week modules)
The learning units will be a foundational part of the course and this is where you will find directions for each two-week segment of the course including reading assignments, content presentations, course materials, lesson activities, quizzes and assignments. Units will be posted on the starting date listed on the syllabus and will be open throughout the course.

Readings
You will have book chapters and articles associated with each unit module. It is critical to stay up on the readings. This is where you will learn much of the ABA terminology, which is cumulative over the course of the ABA sequence and is necessary for course exams and the BACB exam. In addition, you will be asked to find several research studies independently.

Discussion Board Activities
You will have a discussion board activity for each unit. These activities may include responding to questions on a discussion board or reviewing and commenting on research articles. More information on each activity will be provided with each unit.

Content Quizzes
At the end of each unit, you will complete a content quiz. There will be 6 quizzes, each worth 10 points. Quizzes will be completed in Blackboard. Each quiz will consist of a variety of forced-choice questions and short-answer questions. The purpose of the quiz is to help you assess your knowledge of the content from the unit. The quiz must be completed by the last Sunday (at midnight) of the learning unit. Be sure to read the instructions, as the process may vary for specific quizzes.

Assignments
You will have 6 assignments to complete (1 for each unit). Most assignments are worth 20 points. More details about the individual assignments will be provided on Blackboard. All assignments must be prepared in a professional manner (typed, free from spelling/grammatical errors). Late assignments will only be accepted under extenuating circumstances. See late assignment policy.

Exams
There are two exams (a midterm and a final) in this class. Each exam is worth 40 points. You will be asked to use Respondus Lockdown when taking. Exams will consist of a variety of questions, including multiple choice and short answer.

Assignment	Points	Total Points for Semester
Discussion Board Activities (5)	5-10	35
Quizzes (6)	10	60
Assignments (6)	20	120
Exams (2)	40	80
TOTAL POINTS		295

Letter Grade	Percentage Range
A	94-100%
A-	90-93%
B+	87-89%
B	83-86%
B-	80-82%
C+	77-79%
C	70-76%
D	61-69%
F	0-60%

Additional Course Information

Late Assignment Policy

Late assignments are only accepted under extenuating circumstances. Be sure to allow ample time to complete the assignments (these are NOT assignments that can be completed the night before the due date!). You must contact the course instructor at least 24-hrs prior to the due date, and receive approval. All late assignments will receive a penalty of **2pts** per 24-hour period. You may only submit an assignment up to 5 days late (receive a 10-pt deduction). Assignments more than 5 days late will receive no credit. Please contact us ASAP if you anticipate having a difficult time meeting the deadlines.

Learning Support and Assistance

We are devoted to supporting your learning in this class. We can schedule individual meetings via Zoom or another technology or have phone calls to discuss your questions. Please reach out if there is anything we can help you with.

GVSU Course Policies

This course is subject to the GVSU policies listed at http://www.gvsu.edu/coursepolicies/. Please familiarize yourself with these policies.

Academic Integrity

Statement of Student Rights and Responsibilities: "Standards of conduct are established in order to foster a community and environment where the mission, vision and values of Grand Valley State University… can flourish. These standards are embodied within a set core of values that include **integrity**, **community**, **inclusion & equity**, **respect**, and **responsibility**. The University conduct process exists to protect the interests of the community and to challenge those whose behavior falls outside of these values and our policies."

Academic Misconduct Policies and Procedures According to GVSU Code STU 5.1, "Academic Misconduct is defined as any action or behavior that misrepresents one's contributions to or the results of any scholarly product submitted for credit, evaluation, or dissemination." Additional information about the following aspects of Academic Misconduct, including cheating, collusion, dual submission, falsification, and plagiarism is available here.

Course Schedule			
Unit and Dates	**Topics**	**Readings**	**Assignments**
Unit 1: Understanding and Using Experimental Control 5/5 – 5/18	• Research integrity training • Research in Educational Settings • Defining features of SSD	• Hodgetts et al. (2011) • Slavin (2003) • Cooper (2019) – Ch. 7 • Riley-Tillman (2020) – pg. 7-11 + Ch. 2	• Assignment 1: Research Compliance/ CITI training (due by June 1st at the end of Unit 2) • Discussion Board Activity 1 • Quiz 1
Unit 2: Measurement 5/19 – 6/1	• Dimensions of measurement • Identifying measurement procedures • IOA	• Briesch, Volpe, & Floyd (Ch 3, 4) • LeBlanc et al. (2016) • Fiske (2012)	• Assignment 1 • Assignment 2 • Discussion Board Activity 2 • Quiz 2
Unit 3: Reversal and Alternating Tx Designs 6/2 – 6/15	• Reversal design • Alternating treatments design • Graphing data	• Riley-Tillman (2020) – Ch. 3 **For Graphing:** • Blair & Mahoney (2022) • Riley-Tillman (2020) – Appendix A	• Assignment 3 • Discussion Board Activity 3 • Quiz 3
EXAM 1: **Tuesday, June 24** **Take using Respondus Lockdown**			
Unit 4: Multiple Baseline, Multiple Probe and Changing Criterion 6/16 – 6/29	• Multiple baseline • Multiple Probe • Changing criterion • Graphing Data	• Riley-Tillman (2020) – Ch. 4	• Assignment 4 • Discussion Board Activity 4 • Quiz 4
Semester Break **6/30 – 7/6**			
Unit 5: Evaluating Single Subject Designs 7/7 – 7/20	• Visual analysis and interpretation of graphed data	• Riley-Tillman (2020) – Ch. 5 & Ch. 6	• Assignment 5 • Quiz 5
Unit 6: Interpreting and Presenting Data 7/21 – 8/3	• Communicating findings • Research vs Case Studies • Social validity • Program evaluation	• Riley-Tillman (2020) – Ch. 8 • Wolf (1978) – social validity • Morrison & Harms (2018)- Ch. 5	• Assignment 6 • Discussion Board Activity 6 • Quiz 6
EXAM 2: **Tuesday, August 5th** **Take using Respondus Lockdown**			

Readings

Blair, B., & Mahoney, P. (2022). Creating single subject research graphs with Google applications. *Behavior Analysis in Practice, 15, 295-311.*

Briesch, A.M., Volpe, R.J. & Floyd, R.G. (2018). *School-based observation: A practical guide to assessing student behavior.* The Guilford Press.

Cooper, J. O., Heron, T. E., & Heward, W. L. (2019). *Applied behavior analysis* (3rd ed.). Upper Saddle River, NJ: Pearson Education. – Chapter 7

Fiske, K. & Delmolino, L. (2012). Use of discontinuous methods of data collection in behavioral intervention: Guidelines for practitioners. *Behavior Analysis in Practice, 5,* 77-81.

Hodgetts, S., Magill-Evans, J., & Misiaszek, J.E. (2011). Weighted vests, stereotyped behaviors and arousal in children with autism. *Journal of Autism and Developmental Disorders, 41*, 805-814.

Horner, R.H., Carr, E.G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. *Exceptional Children, 71*, 165-179.

LeBlanc, L.A. Raetz, P.B., Sellers, T.P., & Carr, J.E. (2016). A proposed model for selecting measurement procedures for the assessment and treatment of problem behavior. *Behavior Analysis in Practice, 9,* 77-83.

Morrison, J.Q. & Harms, A.L. (2018). *Advancing Evidence-Based Practice through program evaluation: A practical guide for school-based professionals.* New York: Oxford University Press.

Riley-Tillman, T.C., Burns, M.K., & Kilgus, S.P. (2020). *Evaluating Educational interventions: Single-case design for measuring response to intervention.* (2nd edition). New York: Guilford Press.

Slavin, R.E. (2003). A reader's guide to scientifically based research: Using data to improve student achievement. *Educational Leadership, 60*, 12-16.

Wolf, M.M. (1978). Social validity: The case for subjective measurement or How Applied Behavior Analysis is finding its heart. *Journal of Applied Behavior Analysis, 11*, 203-214.