



**College of Education and Human Development  
Division of Special Education and disAbility Research**

Spring 2015

EDSE 621 001: Applied Behavior Analysis: Empirical Bases

CRN: 17225, 3 - Credits

<b>Instructor:</b> Dr. Kristy Park	<b>Meeting Dates:</b> 1/20/2015 - 5/13/2015
<b>Phone:</b> 703 993 5251	<b>Meeting Day(s):</b> Thursdays
<b>E-Mail:</b> <a href="mailto:kparkc@gmu.edu">kparkc@gmu.edu</a>	<b>Meeting Time(s):</b> 4:30 pm-7:10 pm
<b>Office Hours:</b> By appointment	<b>Meeting Location:</b> Fairfax-Krug Hall #15

***Note:** This syllabus may change according to class needs. Students will be advised of any changes immediately through George Mason e-mail and/or through Blackboard.*

**Course Description**

Focuses on basic content of applied behavior analysis. Teaches how to implement behavioral procedures and develop behavioral programs for clients with fundamental behavioral needs. Prerequisite(s): EDSE 619 Corequisite(s): EDSE 619 Hours of Lecture or Seminar per week: 3 Hours of Lab or Studio per week: 0

**Prerequisite(s):** EDSE 619

**Co-requisite(s):** EDSE 619

**Advising Contact Information**

Please make sure that you are being advised on a regular basis as to your status and progress through your program. Mason M.Ed. and Certificate students should contact the Special Education Advising Office at (703) 993-3670 for assistance. All other students should refer to their faculty advisor.

**Nature of Course Delivery**

Learning activities include the following:

1. Class lecture and discussion

2. Application activities
3. Small group activities and assignments
4. Video and other media supports
5. Research and presentation activities
6. Electronic supplements and activities via Blackboard

### **Learner Outcomes**

Upon completion of this course, students will be able to:

- Describe philosophical assumptions underlying data-based decision making in applied behavior analysis.
- Define, describe, identify, exemplify, and use direct measures of behavior.
- Define, describe, identify, exemplify, and use indirect measures of behavior.
- Construct and interpret equal interval graphs.
- Construct and interpret standard celebration charts.
- Describe, identify, and exemplify single subject experimental design.
- Describe and exemplify data-based decision making using visual inspection of graphically presented behavioral data in the context of single subject experimental designs.
- Describe and identify utility and factors affecting use of single subject designs for evaluating instructional, behavioral, and other interventions in applied settings.
- Describe, identify, and exemplify ethical factors regarding data collection, data management, and data based decision making as described by the Guidelines for Responsible Conduct and the Disciplinary Standards.
- Read, interpret, and evaluate articles from the behavior analytic literature.

### **Required Textbooks**

Cooper, J.O., Heron, T.E., & Heward, W.L. (2007). *Applied behavior analysis for teachers* (2<sup>nd</sup> Ed.). Upper Saddle River, NJ: Pearson Merrill Prentice Hall. ISBN 0-13-142113-1

Jacobson, J.W., Foxx, R.M., & Mulick, J.A. (2005). *Controversial therapies for developmental disabilities: Fad, fashion, and science in professional practice*. Mahwah, NJ: Lawrence Erlbaum Associates. ISBN 0-8058-4192-X.

### **Digital Library Option**

The Pearson textbook(s) for this course **may be** available as part of the **George Mason University Division of Special Education and disAbility Research Digital Library**. Please note that not all textbooks are available through this option. Visit the links below before purchasing the digital library to ensure that your course(s) text(s) are available in this format.

The division and Pearson have partnered to bring you the Digital Library; a convenient, digital solution that can save you money on your course materials. The Digital Library offers you access to a complete digital library of **all Pearson textbooks** and MyEducationLabs used across the Division of Special Education and disAbility Research curriculum at a low 1-year or 3-year subscription price. Access codes are available in the school bookstore. Please visit <http://gmu.bncollege.com> and search the ISBN. To register your access code or purchase the Digital Library, visit:

<http://www.pearsoncustom.com/va/gmu/digitallibrary/education/index.html>

- 1 year subscription \$200 ISBN-13: 9781269541411
- 3 years subscription \$525 ISBN-13: 9781269541381
- Individual e-book(s) also available at the bookstore link above or at <http://www.pearsoncustom.com/va/gmu/digitallibrary/education/index.html>

### **Required Resources**

Go to the Behavior Analyst Certification Board website ([www.bacb.com](http://www.bacb.com)) and download the Task List (4<sup>th</sup> ed.) and the Guidelines for Responsible Conduct. We will refer to these documents throughout this course and all others in this Certificate Program.

### **Additional Readings**

Additional Readings may be assigned at the discretion of the course instructor. These readings will be available through Blackboard. Students are responsible for reading any supplemental materials.

### **Course Relationships to Program Goals and Professional Organizations**

This course is part of the George Mason University, Graduate School of Education (GSE), Special Education Program for Applied Behavior Analysis Graduate Certificate. This program complies with the standards for teacher licensure established by the Council for Exceptional Children (CEC), the major special education professional organization. The CEC Standards are listed on the following website:

<http://www.cec.sped.org/Content/NavigationMenu/ProfessionalDevelopment/ProfessionalStandards/>. The content of the courses in this program is derived from the Task List published by the national Behavior Analyst Certification Board (BACB) as well as the Board's Guidelines for Responsible Conduct. The BACB Standards are listed on the following website: For more information on the Board and the examination, please visit the Board's website at [www.bacb.com](http://www.bacb.com). The CEC standard that will be addressed in this class is Standard 4: Assessment. (Updated Fall 2014 to align with the revised CEC Standards)

### **GMU POLICIES AND RESOURCES FOR STUDENTS:**

- a. Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/the-mason-honor-code/>].
- b. Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>].
- c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].

## **PROFESSIONAL DISPOSITIONS**

Students are expected to exhibit professional behaviors and dispositions at all times.

## **CORE VALUES COMMITMENT**

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. [See <http://cehd.gmu.edu/values/>]

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <http://gse.gmu.edu/>]

## **Course Policies & Expectations**

Attendance.

Students are expected to attend all class meetings. It is the student's responsibility to make up all missed work if they are absent for any reason. Course materials are available

on Blackboard for those who either missed class or need additional time with the materials.

**Late Work.**

Work is considered on-time if it is submitted by 4:30pm on the date that it is due. Work submitted after the assigned due date will be assessed a 2 point penalty each week past the due date. Points are deducted after the assignment has been graded.

No work will be accepted after the final examination has been submitted. Work must be submitted onto Blackboard with the exception of assignments required to be submitted through Taskstream (Make Your Own Experiment and Final Exam Feedback Form).

**TaskStream Submission**

Every student registered for any Special Education course with a required performance-based assessment is required to submit these assessments, Make Your Own Experiment and Final Exam Feedback to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete(IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

If you have never used TaskStream before, you MUST use the login and password information that has been created for you. This information is distributed to students through GMU email, so it is very important that you set up your GMU email. For more TaskStream information, go to <http://cehd.gmu.edu/api/taskstream>.

**Grading Scale**

A	= 95-100%	B+	= 87-89%	C+	= 77-79%
A-	= 90-94%	B	= 83-86%	C	= 73-76%
		B-	= 80-82%	C-	= 70-72%
F	= <69%				

Assignment	Points
Make your own experiments: Applied	20
Basic	15
5 Problem Sets (10 points each)	50
4 Quizzes (10 points each)	40
<i>Controversial Therapies</i> discussion leader	10
3 Research Outlines (5 points each)	15
Final Exam (Feedback form to Taskstream)	50

## **Assignments**

### **Performance-based Assessment (TaskStream submission required).**

#### **Make Your Own Experiment: Basic and Applied (TASKSTREAM)**

Both basic and applied research add to the field of behavior analysis. Experimental behavior analysis involves basic research designed to add to the knowledge about behavior, whereas; applied behavior analysis focus on the application of these behavior principles to real-world situations. Given two hypothetical scenarios (one basic, one applied), you will define, describe, and exemplify the use of data- based decision making in a single subject research design. As you identify, measure, and assess behaviors, you will incorporate ethical and professional guidelines outlined by the BACB. The components of the assignment are listed in the evaluation rubric. The Make Your Own Applied project is worth 20 points and the Basic project is worth 15 points, for a total of **35 points**.

#### **Final Exam Feedback Form (TASKSTREAM)**

A final exam will be given to test knowledge of measurement, assessment, and experimental design concepts. Each test item is correlated to the BACB Task List to help the student identify strengths and weaknesses in empirical methods. The instructor will provide written feedback on students' correct and incorrect response. Upload the final exam feedback form onto Taskstream. **(50 Points)**

### **Performance-based Common Assignments (No TaskStream submission required).**

#### **Weekly Discussion Boards**

Students will be divided into groups to complete the weekly discussion boards. Each week, a writing prompt will be developed for your group based upon readings, coursework, and field experiences. Discussion Board prompts will be open-ended enough that there will be room for discussion.

You are responsible for posting a response that answers the writing prompt as it relates to your experience in clinical and educational settings, the readings, class discussion, and your own personal experience. You must also leave a comment on the post of *at least* one of your group members. Build comments from other group members' ideas and connect to other ideas we have explored in class. When posting or commenting, it is important to stay on-topic, and to treat other individuals and their comments with respect. Please refrain from using specific names, agencies, or school personnel. Derogatory conversation will not be tolerated, and may result in a 0 for the poster. Discussion boards will not be graded after one week past the due date unless arrangements are made with the instructor in advance. Once the discussion board is graded, the student may not edit or add to the post to increase their grade.

Students will earn 2 points for each discussion board prompt, 1 point for comments and 1 point for responses. **(2 Points for 13 DB prompts, 26 Points total)**

### **Quizzes**

Students will be responsible for a 20 item multiple choice quiz that students will take through Blackboard. Students are encouraged to complete guided lecture notes, all activities and readings, and actively participate in study groups, as these are the basis for the weekly quizzes. **(4 quizzes, each 10 points, for a total of 40 points)**

### **Research Outlines**

Students will review and interpret 3 articles from the behavior-analytic literature. To complete this assignment, students will complete a research article template provided within the course folder on BB. Below are examples of articles within different research areas. If there is an alternate article that you would like to complete, please inform the professor. **(3 research outlines, each 10 points, for a total of 30 points)**

#### ***Science, Theory, and Technology***

Hayes, S.C., Rincover, A., & Solnick, J.V. (1980). The technical drift of applied behavior analysis. *Journal of Applied Behavior Analysis, 13* (2), 275 – 285.

Iwata, B.A. (1991). Applied behavior analysis as a technological science. *Journal of Applied Behavior Analysis, 24*(3), 421 – 424.

Mace, F.C. (1991). Technological to a fault or faculty approach to technology development? *Journal Applied Behavior Analysis, 44* (3), 433 – 435.

Morris, E.K. (1991). Deconstructing “Technological to a fault.” *Journal of Applied Behavior Analysis, 24*(3), 411 – 416.

#### ***Compliance:***

Normand, M.P., & Beaulieu, L. (2011). Further evaluation of response-independent delivery of preferred stimuli and child compliance. *Journal of Applied Behavior Analysis, 44* (3), 665 – 669.

Normand, M.P., Kestner, K., & Jessel, J. (2010). An analysis of stimuli that influence compliance during the high-probability instruction sequence. *Journal of Applied Behavior Analysis, 43* (4), 735-738.

Schiff, A., Tarbox, J., Lanagan, T., & Farag, P. (2011). Establishing compliance with liquid medication administration in a child with autism. *Journal of Applied Behavior Analysis, 44* (2), 381-385.

Stephenson, K.M., & Hanley, G.P. (2010). Preschoolers’ compliance with simple instructions: A descriptive and experimental evaluation. *Journal of Applied Behavior Analysis, 43* (2), 229-247.

Wilder, D.A., Allison, J., Nicholson, K., Abellon, O.E., & Saulnier, R. (2010). Further evaluation of antecedent interventions on compliance: The effects of rationales to increase compliance among preschoolers. *Journal of Applied Behavior Analysis*, 4 (43), 601-613.

**Education:**

Hofstadter-Duke, K.L., & Daly, E.J. (2011). Improving oral reading fluency with a peer mediated intervention. *Journal of Applied Behavior Analysis*, 44 (3), 641-646.

Lannie, A.L., & Martens, B.K. (2004). Effects of task difficulty and type of contingency on students' allocation of responding to math worksheets. *Journal of Applied Behavior Analysis*, 37 (1), 53-65.

Melchiori, L.E., deSouza, D.G., & deRose, J.C. (2000). Reading, equivalence, and recombination with students with different learning histories. *Journal of Applied Behavior Analysis*, 33 (1), 97-100.

Moore, J.W., & Edwards, R.P. (2003). An analysis of aversive stimuli in classroom demand contexts. *Journal of Applied Behavior Analysis*, 36 (3), 339-348.

Resetar, J.L., & Noell, G.H. (2008). Evaluating preference assessments for use in the general education population. *Journal of Applied Behavior Analysis*, 41 (3), 447-451.

**Other Assignments.**

**Extra Credit**

**Extra Credit –Behavior Development Solutions.**

Completing the following Behavior Development Solutions modules:

- Experimental Evaluation of Interventions
- Measurement of Behavior

*Certificates of completion will earn 1 points of extra credit for each certificate submitted*

**SAFMEDS Demonstration**

SAFMEDS is an acronym for Say All Fast Minute Each Day Shuffled. Students will be given a list of terms and definitions. You will demonstrate fluency with the SAFMEDS terms assigned for that week by responding correctly to each card within the specified time limit. There are 10 SAFMEDS opportunities for 2 points of extra credit for each SAFMEDS set. Two points are earned by responding correctly to all cards within the specified time limit (30sec).

**Schedule**

Date	Concepts	Readings prior to	Assignments Due
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		the class	
Week 1 1/22	<ul style="list-style-type: none"> <li>- Review course requirements</li> <li>- BB course tour</li> <li>- Synchronous learning through BB Collaborate</li> </ul>	- Course Syllabus on Blackboard	-Sign up for a CT chapter
Week 2 1/29	<p>Asynchronous Online Behavioral Model and Evidence-based Practice</p> <p>Complete Pre-Test on Blackboard</p>		Complete Pre-Test
Week 3 2/5	<p>Science and the Philosophical assumptions of behavior analysis</p> <p><i>Controversial Therapies: General Issues</i></p> <p>SAFMEDS Set 1</p>	<p>Read ABA Chpt 1 65-69; Chpt 2, 159-164</p> <p>Read CT Ch 1, 2</p>	
Week 4 2/12	<p>General issues of measurement</p> <p>Prioritize and operationalize behaviors</p> <p><i>Student facilitated discussion: Nature and value of empirically validated interventions</i></p> <p>SAFMEDS Set 2</p>	<p>Read ABA Chpt 4</p> <p>Read <u>CT</u> Chpt 13</p>	
Week 5 2/19	<p>Data collection methods</p> <p>Direct measures of behavior</p> <p>Selecting appropriate measures,</p> <p><i>Student facilitated discussion: Controversial therapies: The appeal</i></p>	<p>Read ABA pp. 73 – 80, 83 – 90</p> <p>Read CT Chpt 4</p>	- PS 1
Week 6 2/26	<p>Data collection methods</p> <p>Indirect measures of behavior</p> <p>Selecting appropriate measures,</p> <p><i>Student facilitated discussion: Fads in Speech language pathology</i></p>	<p>Read ABA pp. 81 – 82, 85 – 87, 90 – 100</p> <p>Read <u>CT</u> Chpt 14</p>	- PS 2
Week 7 3/5	<p>Single Subject Research Designs</p> <p>Research designs: Withdrawals and Reversals</p> <p>Alternating Treatments (i.e., multi-element design)</p>	<p>Read ABA Chpt 1 65-69; 167-174</p> <p>ABA 187-194</p> <p>Read <u>ABA</u> Chpt 8</p> <p>Read CT Chpt 16</p>	- <i>Research outline #1 Due</i>

	<p><i>Student facilitated discussion: Controversial Therapies: Autism, Helping Parents</i></p> <p>SAFMEDS Set 3</p>		
<p>Week 8  3/12</p>	<p>Research designs: Multiple Baseline Designs and Multiple Probe Design</p> <p>SAFMEDS Set 4</p>	<p>ABA 201-219</p>	<p>- Research outline #2 Due</p> <p>- PS 3</p>
<b>GMU Spring Break</b>			
<p>Week 9  3/19</p>	<p>Component Analysis and Parametric Analysis</p> <p>Constructing graphs</p> <p><i>Student facilitated discussion: Severe Aggression and Self-Destructive Bx: Mentalistic</i></p>	<p>Read ABA 162-166 Chpt 6</p> <p>Read <u>CT</u> Chpt 17 Read <u>CT</u> Chpt 18</p>	<p>- Research outline #3 Due</p>
<p>Week 10  3/26</p>	<p>Visual Analysis of data</p> <p><i>Student facilitated discussion: Nonaversive and Gentle Teaching</i></p>	<p>Read ABA Chpt 7</p> <p>Read <u>CT</u> Chpt 24 Read <u>CT</u> Chpt 25</p>	<p>- PS 4</p> <p>- Quiz 1</p>
<p>Week 11  4/2</p>	<p>Standard Celeration Charting</p> <p><i>Student facilitated discussion: Field Specific: Education and Special Education, Neutralization of Sped</i></p>	<p>Read <u>CT</u> Chpt 11 Read <u>CT</u> Chpt 12</p>	<p>--Quiz 2</p>
<p>Week 12  4/9</p>	<p>Research ethics and participant protection; Consent</p> <p><i>Student facilitated discussion: Controversial Therapies- Ethics</i></p>	<p>Read <u>CT</u> Chpt 26</p>	<p>- PS 5</p> <p>- Quiz 3</p>
<p>Week 13  4/16</p>	<p>Review of Single Subject Research Designs</p> <p>Controversial Therapies</p>	<p>Read <u>CT</u> Chpt 19 Read <u>CT</u> Chpt 24 Read <u>CT</u> Chpt 20 Read <u>CT</u> Chpt 21 Read <u>CT</u> Chpt 22</p>	<p>Declaration of professional practice</p> <p>- Quiz 4</p>

	<p><i>Student facilitated discussion: Intervention specific- PCP, Nonaversive</i></p> <p><i>Student facilitated discussion: Intervention specific- SIG, AIG, FC</i></p>		
<p>Week 14 4/23</p>	<p>Basic and Applied Research Scenarios Selecting behaviors, measurement systems, research designs, graphing, and interpreting results</p> <p>In class group work: Basic and Applied Experiment Designs</p>	<p>Make your own experiment rubric and assignment description</p>	
<p>Week 15 4/30</p>	<p>Course evaluations</p> <p>Final Exam through BB using Respondus open</p>		<p>Make your own Experiment (applied and basic) Due and submit onto Taskstream!</p>
<p>5/7</p>	<p><b>Submit Final Exam Feedback onto Taskstream by 7:10pm</b></p>		<p>Submit Final Exam Feedback onto Taskstream</p>

## Appendix