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

Spring 2014  
EDSE 621 688: Applied Behavior Analysis: Empirical Bases  
CRN: 17981, 3 - Credits

<table>
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<tr>
<th>Instructor: Dr. Maranda Trahan</th>
<th>Meeting Dates: 01/09/14 - 03/27/14</th>
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<tr>
<td>Phone: 703-993-3670</td>
<td>Meeting Day(s): Thursday</td>
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<tr>
<td>E-Mail: <a href="mailto:mtrahan2@gmu.edu">mtrahan2@gmu.edu</a></td>
<td>Meeting Time(s): 4:30pm – 8:00pm</td>
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<td><a href="mailto:mtrahan@umbc.edu">mtrahan@umbc.edu</a></td>
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<tr>
<td>Office Hours: By appointment; before class</td>
<td>Meeting Location: C-11B @ Fairfax Ridge</td>
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**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

**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:
• 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 celeration 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

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

- 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
Given the possibility of computer or internet difficulties some students may experience from time to time, students must consider and identify alternative availability of computers and internet access (e.g., public libraries, their employer (if permissible by the employer), internet cafes, etc.) within the first week of this course to ensure that they will be able to complete their assignments in a timely manner.

Go to the Behavior Analyst Certification Board website (www.bacb.com) and download the Task List (4th ed.) and the Guidelines for Responsible Conduct. We will refer to these documents throughout this course and all others in this Certificate Program. ALSO IN COOPER BOOK.

One of the extra credit options listed in this document will need to purchase a subscription to the BCBA Examination Study software, available through Behavior Development Solutions at http://www.behaviordevelopmentssolutions.com/.
Additional Readings
Articles listed below published in the *Journal of Applied Behavior Analysis* may be downloaded directly from the journal’s website at [http://www.ncbi.nlm.nih.gov/pmc/journals/309/](http://www.ncbi.nlm.nih.gov/pmc/journals/309/). To obtain articles from the list published in other journals:

2. Click on Databases.
3. Scroll down to, and click on Psych Info.
4. Type in the title or other relevant information in the search term boxes.
5. Hit Search.
6. Locate the reference for the article in the resulting list.
   a. If there is a doi number with the reference, click on it. A pdf of the article will appear shortly.
   b. If there is no doi number, click on MasonLink.
      i. Select the article from the information that pops up next, or
      ii. Request a copy of the article through interlibrary loan if it is not available through our library.
7. Alternatively, you may visit or phone the Fenwick library (703.993.2250) on the GMU Fairfax, Virginia campus and ask a librarian for assistance.

**Automatically reinforced behavior:**


**College instruction:**


**Community applications:**

Compliance:

Driver safety:

Education:

Functional analysis methodology:
Geriatrics:

Parenting:

Psychiatric issues:

Sports applications:
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. The CEC standard that will be addressed in this class is Standard 8: Assessment.

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/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.
It is expected that students attend all class sessions. Please arrive on time and remain in class for the entire class session. Participation in class activities are designed to enhance learning objectives and often used as guided practice on assignments due for the course.

Late Work.
Assignments are due as scheduled on the calendar below Late work penalties can range from -1 point to minus half of the project. See below for further detail.

TaskStream Submission
Every student registered for any Special Education course with a required performance-based assessment is required to submit this assessment, 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

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<th>Course Requirement</th>
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<tr>
<td>Pre-Test</td>
<td>10</td>
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<td>Discussion Board: Comment to Instructor</td>
<td>28</td>
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<tr>
<td>Discussion Board: Comment to Peer</td>
<td>28</td>
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<tr>
<td>Problem Sets</td>
<td>80</td>
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<td>Research Outlines</td>
<td>20</td>
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<td>Make Own Experiment: Basic</td>
<td>16</td>
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<td>Make Own Experiment: Applied</td>
<td>16</td>
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<td>Make Own Experiment Presentation</td>
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<td>Final Exam</td>
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<td><strong>TOTAL POINTS</strong></td>
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<td>Bonus Points</td>
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<tr>
<td>95-100%</td>
<td>90-94%</td>
<td>85-89%</td>
<td>80-84%</td>
<td>70-79%</td>
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<td>246-260 pts</td>
<td>233-245 pts</td>
<td>220-232 pts</td>
<td>207-219 pts</td>
<td>181-206 pts</td>
<td>≤180 pts</td>
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Assignments

**Performance-based Assessment (TaskStream submission required).**
- Make Own Experiment: Basic and Applied
- Final Exam

**Performance-based Common Assignments (No TaskStream submission required).**
- Pretest
- Discussion Board Comments
- Research Outlines
- Problem Sets
- Extra Credit

**Other Assignments.**
- Make Own Experiment Presentations
**PRETEST:** Due MONDAY, January 13 by 8AM  
10 pts  
The assignment can be accessed by BlackBoard. Points for for COMPLETION NOT CORRECTNESS. You will have to print out documents, complete documents, scan documents into computer as PDFs, and submit the documents. Email me to confirm that your pretest is completed. Late submissions will receive half points (5 pts).

**DISCUSSION BOARD:** COMMENT TO INSTRUCTOR: Due MONDAYs by 8AM  
1 pt ea  
Each week after class, I will post 2-4 questions about the JFM chapters. Each chapter will have ONE question. You need to make a comment about the question, based on your reading of the chapter. Each question is worth 1 pt and there are 28 chapters in the book (totaling 28pts). Your comments must be THOUGHTFUL. Comments that only include statement of agreement (e.g., “I agree with Maranda’s comments”) will not be scored thoughtful. Late comments will receive no points.

**DISCUSSION BOARD:** COMMENT TO PEER: Due THURSDAYs by 8AM  
1 pt ea  
Each week, you’ll also need to add a comment to a peer’s comment. You’ll need to make 1 peer comment for every chapter in the book (1 pt x 28 chapters = 28 points). Peer comments should also be THOUGHTFUL. These are due the morning of class. Late comments will receive no points.

**PROBLEM SETS:** Due at the beginning of class  
10pt ea  
Problem sets provide additional practice on specific objectives in measurement, assessment, and experimental design concepts. Problem sets due on the date assigned BY CLASS TIME. There will be 8 problem sets throughout the course, each worth 10 points. Submit through Blackboard. For every 24 hour period the problem set is late, 1 point is deducted. **Incorrect responses may be corrected and resubmitted once, for up to ½ credit for each corrected response.** Correct problem sets will be accepted within ONE WEEK after the date it is returned to the student. None will be accepted after that date.

**RESEARCH OUTLINES:** Due any time between first class and March 13  
10pt ea  
Students will review and interpret 2 articles from the behavior-analytic literature (from the list appearing earlier in the syllabus). The student will provide a written 1-paged outlined summary of the article using a research worksheet for each. Worksheets can be found on Blackboard. Worksheets can be turned in at anytime throughout the semester, up until Week 10. After class on March 13, no more research outlines will be accepted. You’ll need to complete 2 in the semester (at 10 points each = 20 points).

**MAKE OWN EXPERIMENT:** BASIC: Submission due by March 28 at 10pm  
16pt  
This is a TaskStream assignment. Each class member will be assigned to a group. Each group will be assigned two scenarios: one basic and one applied research scenario. For each, you’ll be
asked to answer a variety questions (described below). Each group member will submit a written document, with each group member’s name atop the first page through TaskStream for grading.

**MAKE OWN EXPERIMENT: APPLIED:** Submission due by March 28, 10pm

This is a TaskStream assignment. Each class member will be assigned to a group. Each group will be assigned two scenarios: one basic and one applied research scenario. For each, you’ll be asked to answer a variety questions (described below). Each group member will submit a written document, with each group member’s name atop the first page through TaskStream for grading.

**MAKE OWN EXPERIMENT: PRESENTATION:** March 27

Each group will present both Make Own Experiment projects to the class. Students will need to create a powerpoint presentation and describe each graded aspect of the project to the class. Each presentation will be NO LONGER THAN 10 MIN. The class will provide feedback. Using this feedback, group members can revise the project before submitted to TaskStream.

**MAKE OWN EXPERIMENT RUBRIC**

1. Develop a Declaration of Professional Practice (for the applied scenario) based on the sample provided or an informed consent form for participants, based on the BACB Guidelines for Responsible Conduct (2 points)
2. Develop a behavioral definition for the identified problem behavior (1 point); select a measure for the behavior of interest (and give the rationale for selecting this measure) (1 point)
3. Develop a recording form for collecting data (2 points)
4. Write step by step instructions for collecting data (2 points)
5. Select a design that will best answer the question asked (and give the rationale for that design) (2 points)
6. Describe, step by step, how you will implement that design, indicating
   a. How you will begin baseline data collection (1 point)
   b. Decision rules for introducing your intervention (1 point)
   c. Decision rules for withdrawing and for reintroducing your intervention (if appropriate) or for introducing your intervention in another setting (or for another therapist, subject, behavior, etc.) (if appropriate) (1 point); and
   d. How you will control for relevant threats to internal validity (1 point)
7. Construct a graph of possible data that would show functional control of the intervention over the behavior, using the design you chose (2 points)
**FINAL EXAM**: Due Friday, March 28 at midnight  
50 pts  
This is a TaskStream assignment. 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 test will consist of 50 items and will be similar to the pretest. Pretest is due by FRIDAY, March 28 at midnight.

**BONUS POINTS**: Due by beginning of class, March 13  
15pts  
There are 4 extra credit options. Each worth 5-15 points. Points can be turned in at any point throughout the semester until the time of class on March 13. No extra credit points will be accepted after that date.

Option 1: Research Worksheets  
Each additional research worksheet you complete may earn you an additional 5pts (depending on correctness). Extra worksheets should be uploaded to Blackboard.

Option 2: Behavior Development Solutions  
You may complete either the a) Experimental Evaluation of Interventions or b) Measurement of Behavior modules. Each certification of completion is worth 7.5 extra points. Certificates should be uploaded to Blackboard. Access to the BDS website is described above.

Option 3: GMU ABA Workshops  
Students may attend the GMU ABA Workshop entitled, “Board Certified Behavior Analyst Supervisor Training: Effective Supervisors Do What It Takes”. After attending the workshop, the student should submit via Blackboard a) provide proof of attendance and b) a one-page description of 3 take aways.

Option 4: Human Subjects Training  
Complete the GMU Human Subjects Training online. Upload the Completion Certificate to Blackboard and receive 10 pts.
## Schedule

CHH=Cooper, Heron, & Heward  
JFM=Jacobson, Foxx, Mulick

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<th>Wk</th>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
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| 1  | Jan 9 | Introductions with students  
  Introduction to course  
  Syllabus Review  
  Pre-test | CHH Ch 1  
  CHH Ch 2 65-69  
  JFM Ch 1  
  JFM Ch 2  
  JFM Ch 3 |
| 2  | Jan 16 | What Makes Behavior Analysis Unique  
  Introduction to SS Research  
  On What We Base Our Practice | SAFMEDS List 1  
  Complete all assignments in Week 2 folder |
| 3  | Jan 23 | Introduction & Behavioral Definitions Described  
  Topographical & Functional Definitions  
  Practice Measuring & Counting: Count data, Cumulative, Duration, Rate, Latency, IRT, Extensity, Intensity, Partial-Whole- and Momentary Time Sampling  
  Direct Measures, Indirect Measures  
  PLACHEK | CHH Ch 4 (73-100)  
  JFM Ch 4  
  JFM Ch 5  
  JFM Ch 6  
  SAFMEDS Lists 2,3  
  Complete all assignments in Week 3 folder |
| 4  | Jan 30 | Measurement Con't: Accuracy, Trials to Criterion, Permanent Products, General issues  
  Introduction to Equal Interval Graphs & Histograms  
  IOA  
  Graphing  
  Cumulative Count Graphs  
  Standard Celeration Charts | Problem Set 1 & 2  
  CHH Ch 4 (73-80; 83-90)  
  CHH Ch 7  
  JFM Ch 7  
  JFM Ch 8  
  JFM Ch 9  
  SAFMEDS Lists 4,5  
  Complete all assignments in Week 4 folder |
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<td>Standard Celeration Charts Wrap-Up</td>
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<td>Intro to Functional Relations &amp; Internal</td>
<td>CHH Ch 5 177-186</td>
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<td>Alternative Treatments</td>
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<td>Pairwise Comparison</td>
<td>CHH Ch 5 187-194</td>
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<td>alternating treatments design for instructional research. *Education and</td>
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<td>Treatment of Children*, 8 (1), 67-76.</td>
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<td>Analysis*, 20 (2), 171-178.</td>
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<td>7</td>
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<td>Multiple Baseline</td>
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<td>11</td>
<td>Measuring Psychiatric Symptoms&lt;br&gt;Make Own Experiments Discussion&lt;br&gt;Make Up Day?</td>
<td>SAFMEDS Lists 12,13&lt;br&gt;Complete all assignments in Week 11 folder</td>
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<td>12</td>
<td>Make Own Experiment Presentations</td>
<td>Submit Projects After Presentation&lt;br&gt;Final Exam / Post-Test</td>
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**Appendix**

N/A