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

Fall 2013  
EDSE 621 DL1: Applied Behavior Analysis: Empirical Bases  
CRN: 77839, 3 - Credits  

<table>
<thead>
<tr>
<th>Instructor: Dr. Theodore Hoch</th>
<th>Meeting Dates: 8/26/2013 - 12/18/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone: 703.987.8928 / 703.993.5245</td>
<td>Meeting Day(s): 5 Synchronous Meetings on Tuesdays - 9/3, 9/10, 11/12, 11/26, &amp; 12/03 from 5:30 – 6:30 pm</td>
</tr>
<tr>
<td>E-Mail: <a href="mailto:thoch@gmu.edu">thoch@gmu.edu</a></td>
<td>Students must access course each week throughout the semester and work on asynchronous assignments</td>
</tr>
<tr>
<td>Office Hours: Mondays and Thursdays from 1:30 pm – 3:45 pm US Eastern Time</td>
<td>Meeting Location: Synchronous meetings in Blackboard Collaborate; Asynchronous work through Blackboard</td>
</tr>
</tbody>
</table>

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) 993-3145 for assistance. All other students should refer to their faculty advisor.
Nature of Course Delivery
[Instructors, please revise in accordance with your specific course format]

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 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 is available as part of the George Mason University Division of Special Education and disAbility Research Digital Library. 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.

- 3 years subscription $525 ISBN-13: 9781269541381
- Individual e-book(s) also available at the bookstore link above or at http://www.pearsonhighered.com/. Search by author, title, or ISBN.

Recommended Textbooks

None, although those wishing to complete the optional, extra credit assignment listed on page 6 of this document will need to purchase a subscription to the BCBA Examination Study software, available through Behavior Development Solutions at http://www.behaviordevelopmentsolutions.com/.

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.

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/. To obtain articles from the list published in other journals:

1. Go to the GMU library website at http://library.gmu.edu/.
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.

**Single subject design methodology:**


**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.

Students are expected to be present for the duration of every synchronous discussion, and
to participate in every synchronous discussion. Students may not reschedule missed
Synchronous Discussions or Research Profile presentations.

Late Work.

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.

Students are strongly encouraged to complete all assignments during the weeks they first
become available in order to keep up with the course. Discussion Board items will be
available for only two weeks (from 12:00 am on the first Monday of availability to 11:59
pm of the last Monday of availability). Lesson recordings and their embedded quizzes
will remain available for the duration of the course once they become available. Problem
sets submitted after the due date listed on the syllabus will be assessed a 10% possible
point penalty. No work may be edited or submitted after 18 December 2013 at 11:59 pm,
US Eastern Time.

Hoch - EDSE 621 DL1: Fall 2013
The Final Exam is available only between midnight on 9 December 2013 and 11:59 pm on 18 December 2013, both US Eastern Time. Students will not have access to this exam before or after those times.

**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**

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Possible Points per Instance</th>
<th>Number of instances</th>
<th>Points Possible for Assignment Type</th>
<th>Cumulative Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion Board items</td>
<td>2 points per item</td>
<td>26 items</td>
<td>52 points possible</td>
<td>52 points possible</td>
</tr>
<tr>
<td>Synchronous Discussions</td>
<td>5 points per discussion</td>
<td>5 discussions</td>
<td>25 points possible</td>
<td>77 points possible</td>
</tr>
<tr>
<td>Problem Sets</td>
<td>10 points per set</td>
<td>8 sets</td>
<td>80 points possible</td>
<td>157 points</td>
</tr>
<tr>
<td>Research Worksheets</td>
<td>10 points per worksheet</td>
<td>5 worksheets</td>
<td>50 points possible</td>
<td>207 points</td>
</tr>
<tr>
<td>Make Your Own Experiment</td>
<td>16 points per experiment</td>
<td>2 experiments</td>
<td>32 points possible</td>
<td>239 points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>50 points per exam</td>
<td>1 exam</td>
<td>50 points possible</td>
<td>289 points</td>
</tr>
</tbody>
</table>

\[
\begin{align*}
A &= 275 - 289 \\
A- &= 260 - 274 \\
B &= 231 - 259 \\
C &= 202 - 230 \\
F &< \text{Fewer than 202 points}
\end{align*}
\]
Assignments

NCATE/TaskStream Assignments.

There are two Taskstream Assignments for this course. They are:

Final Examination. This test will consist of 50 items, and will be given as a pretest on
the in the first week of class, and a parallel form as a final exam in the last week of class.
Credit toward your final score will only be given for your performance on this test on the
last night of class. After you have completed your final exam, you’ll be e-mailed a
document that details your performance by content area covered by the exam. You’ll
need to upload this document to Taskstream.

Make Your Own Experiment. The each class member will be assigned to a group. Each
group will be assigned two scenarios: one applied scenario and one basic research
scenario. For each, you will be asked to:
   A- 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);
   B- 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);
   C- develop a recording form for collecting data (2 points);
   D- write step by step instructions for collecting data (2 points);
   E- select a design that will best answer the question asked (and give the rationale for
      that design) (2 points);
   F- 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)
   G- Construct a graph of possible data that would show functional control of the
      intervention over the behavior, using the design you chose (2 points).
   H- Each group will present their experiments to the class for peer review during a
      Synchronous Discussion. A total of 16 points is possible for each experiment
      presented.
      Each group member will submit the written document for both the applied and basic
      experiments, with each group member’s name atop the first page, through Taskstream
      for grading.

Common Assignments.

Blackboard Discussion Board Items. For weeks indicated below, in
conjunction with your readings from Controversial therapies for developmental
disabilities, respond to the week’s two Discussion Board items. To respond, first
do the assigned reading. Next, go to the week’s Discussion Board items on
Blackboard. Read your instructor’s question and respond directly to that question for one point. Then, go back later that day or on another day and read your classmates’ posts. Respond to one or more of those posts for a second point.

**Problem Sets.** You will complete these per instructions contained on each problem set, and submit them by e-mail no later than at the end of the dates for which they are indicated as due in the schedule below. A total of 10 points is possible for each correctly completed Problem Set submitted on time; up to 9 points for those submitted late. *Incorrect responses may be corrected and resubmitted once, for up to ½ credit for each corrected response.* Corrected problem sets will be accepted up to the time of the final examination; none will be accepted afterward.

**Research Worksheets.** The Research Worksheet outline will be available on Blackboard, in Course Documents. You will select one set of articles from the list appearing earlier in this syllabus (other than the Single Subject Design Methodology articles) and complete a research worksheet for each article in that set (completing five research worksheets in all). Research worksheets are due no later than at the beginning of the course sessions indicated below. Worksheets turned in on time or early can earn a total of 10 possible points each; those turned in late can earn up to 9 points each.

**Other Assignments.**

**Synchronous Class Discussion.** You are expected to participate in each of the live class discussions held through Blackboard Collaborate. If you have questions, ask them. If you have a response to another student’s question, offer it. If you have a comment, make it. You will only learn by doing, and the more you do, the more you’ll learn. You will earn five points for attending and participating in a discussion. Missed Discussion points may not be made up.

**Extra Credit – Behavior Development Solutions.** Completing the following Behavior Development Solutions modules:
- [ ] Experimental Evaluation of Interventions
- [ ] Measurement of Behavior
and the certificates of completion for one or both of these modules to Blackboard (Extra Credit tab) will earn 10 points of extra credit per certificate submitted.

**Extra Credit – Research Worksheets.** Alternatively, one may complete research worksheets for an additional content area from the content areas listed earlier in this syllabus, submitting them through Blackboard (Extra Credit tab) no later than midnight on 18 December 2013, for up to 4 points per worksheet. Should one choose this option, one must complete a research worksheet for each of the five articles in the content area, and must submit all five, for a total of 20 possible points.
### Schedule

In the table below, **ABA** refers to the Cooper, Heron, and Heward text (Applied Behavior Analysis), and **CT** refers to the Controversial Therapies text.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
<th>Assignments / Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week of 8.26.13</td>
<td>Review Syllabus</td>
<td>Complete all activities in Week 1 folder</td>
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<tr>
<td>Week 1</td>
<td>Pretest</td>
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<tr>
<td>Week of 9.2.13</td>
<td>Introduction to Single-subject design</td>
<td>Read CT Ch 1 and 2, <strong>ABA</strong> Ch 1, pp. 65 – 69</td>
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<tr>
<td>Week 2</td>
<td></td>
<td>Complete all activities in Week 2 folder</td>
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<tr>
<td>Week 3</td>
<td></td>
<td>Complete all activities in Week 3 folder</td>
</tr>
<tr>
<td>Week of 9.16.13</td>
<td>Measurement – Indirect Measures of Behavior: accuracy, intensity, trials to criterion, percentage, percentage occurrence, percentage intervals occurrence, permanent products, and other estimates; Selecting appropriate measures; General data collection issues</td>
<td>Problem Set 1 Due</td>
</tr>
<tr>
<td>Week 4</td>
<td></td>
<td>Read CT Ch 5 and 6, <strong>ABA</strong> pp. 81 – 82, 85 – 87, 90 – 100</td>
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<tr>
<td>Week 5</td>
<td>Data Management: Graphic data display and graph preparation; maintaining data tables; data summary; equal interval graphs; cumulative count graphs</td>
<td>Problem Set 2 Due</td>
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<tr>
<td>Week 6</td>
<td></td>
<td>Read CT Ch 7 and 8, <strong>ABA</strong> Ch 6</td>
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<tr>
<td>Week of 9.30.13</td>
<td>Standard Behavior Charts</td>
<td>Problem Set 3 Due</td>
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<tr>
<td>Week 7</td>
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<td>Read CT Ch 9 and 10, <strong>ABA</strong> Ch 7</td>
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<tr>
<td>Week of 10.7.13</td>
<td>Withdrawal Designs (AB, ABA, ABAB, BAB, etc.); Component Analysis; Parametric Analysis</td>
<td>Problem Set 4 Due</td>
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<td>Read CT Ch 11 and 12, <strong>ABA</strong> pp. 177 – 186</td>
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<td>Complete all activities in Week 7 folder</td>
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<tr>
<td>Date</td>
<td>Topics</td>
<td>Assignments / Activities</td>
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<tr>
<td>Week of 10.14.13</td>
<td>Alternating Treatments Designs and Pairwise Comparison Designs</td>
<td>Problem Set 5 Due</td>
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<tr>
<td>Week 8</td>
<td></td>
<td>Read CT Ch 13 and 14, ABA pp. 187 - 194; Watson et al. (1985), Sindelar et al. (1985), &amp; McGonigle et al. (1987)</td>
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<tr>
<td>Week of 10.21.13</td>
<td>Multiple Baseline Designs</td>
<td>Problem Set 6 Due</td>
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<tr>
<td>Week 9</td>
<td></td>
<td>Read CT Ch 15 and 16, ABA Ch 9; Complete all activities in Week 9 folder</td>
</tr>
<tr>
<td>Week of 10.28.13</td>
<td>Measuring choice, preference, and other phenomena; Combining measurement and design elements to solve complex problems</td>
<td>Problem Set 7 Due</td>
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<tr>
<td>Week 10</td>
<td></td>
<td>Read CT Ch 17 and 18, ABA Ch 5, 10</td>
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<tr>
<td>Week 11</td>
<td></td>
<td>Read CT Ch 19 and 20; Complete all activities in Week 11 folder</td>
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<tr>
<td>Week of 11.11.13</td>
<td>Empirically supported interventions; Using measurement and experimental design in everyday situations and settings</td>
<td>Read CT Ch 21 and 22</td>
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<tr>
<td>Week 12</td>
<td></td>
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<tr>
<td>Week of 11.18.13</td>
<td>Make Your Own Experiment Week!</td>
<td>Read CT chapters 23 and 24</td>
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<tr>
<td>Week 13</td>
<td></td>
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<tr>
<td>Week of 12.2.13</td>
<td>Measuring psychiatric symptoms and medication effects</td>
<td>Read CT Chapters 25 and 26</td>
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<tr>
<td>Week 14</td>
<td></td>
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<tr>
<td>Week of 12.9.13</td>
<td>Final Exam – must complete online no later than 11:59 pm US Eastern Time on 12.16.13.</td>
<td>EXTRA CREDIT! Read CT Ch 27 and 28; Respond to DB Items 27 and 28 on Blackboard</td>
</tr>
<tr>
<td>Week 15</td>
<td></td>
<td>Submit all Research Worksheets and all revised problem sets by 11:59 pm on 12.16.13.</td>
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<td></td>
<td></td>
<td>Submit Make Your own Experiments documents to Taskstream no later than 11:59 pm on 12.16.13</td>
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Appendix

There is no appendix!