



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

Spring 2017

EDSE 621 DL1: Applied Behavior Analysis: Empirical Bases

CRN: 13345, 3 – Credits

PSYC 592 DL1: Applied Behavior Analysis: Empirical Bases

CRN: 21736, 3 – Credits

Instructor: Dr. Theodore Hoch	Meeting Dates: 01/23/17 – 05/12/17
Phone: 703-987-8928 (can also text at this number)	Meeting Day(s): Tuesday; 2/7, 2/14, 4/18, 4/25, & 5/2 ONLY
E-Mail: thoch@gmu.edu	Meeting Time(s): 5:30pm – 6:30pm US Eastern Time
Office Hours: Monday and Wednesday 1:30 – 4:00 (US Eastern Time), and by appointment	Meeting Location: Internet,
Office Location: Suite 100, Finley Building / MS 1F2 / 4400 University Drive / Fairfax, VA 22030	Sype: drtheodorehoch

Note: This syllabus may change according to class needs. Teacher Candidates/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): B- or higher in EDSE 619 must be completed prior to or concurrently with EDSE 621.

Prerequisite(s) enforced by registration system.

Corequisite(s): EDSE 619

Schedule Type: LEC

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 teacher candidates/students should contact the Special Education Advising Office at (703) 993-3670 for assistance. All other teacher candidates/students should refer to their faculty advisor.

Advising Tip

Have you met with an advisor? All students should make an appointment to meet with an advisor to outline a plan for completing coursework and non-course requirements such as testing. To make an appointment by phone or in person, go to <http://gse.gmu.edu/special-education/advising/>.

Course Delivery Method

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

This course will be delivered online (76% or more) using both Asynchronous and Synchronous formats via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on 20 January 2017.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox is required (note: Opera and Safari are not compatible with Blackboard).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.

- Students will need a headset microphone for use with the Blackboard Collaborate web conferencing tool.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
 - Adobe Acrobat Reader: <https://get.adobe.com/reader/>
 - Windows Media Player: <https://windows.microsoft.com/en-us/windows/downloads/windows-media-player/>
 - Apple Quick Time Player: www.apple.com/quicktime/download/

Expectations

- Course Week:

Because asynchronous courses do not have a “fixed” meeting day, our week will start on Monday and finish on Sunday.

- Log-in Frequency:

Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least four (4) times per week. In addition, students must log-in for all scheduled online synchronous meetings.

- Participation:

Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.

- Technical Competence:

Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.

Technical Issues:

Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.

- Workload:

Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus.

It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

- **Instructor Support:**

Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.

- **Netiquette:**

The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.

- **Accommodations:**

Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Outcomes

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

1. Describe philosophical assumptions underlying data-based decision making in applied behavior analysis.
2. Define, describe, identify, exemplify, and use direct measures of behavior.
3. Define, describe, identify, exemplify, and use indirect measures of behavior.
4. Construct and interpret equal interval graphs.
5. Construct and interpret standard acceleration charts.
6. Describe, identify, and exemplify single subject experimental design.
7. Describe and exemplify data-based decision making using visual inspection of graphically presented behavioral data in the context of single subject experimental designs.
8. Describe and identify utility and factors affecting use of single subject designs for evaluating instructional, behavioral, and other interventions in applied settings.
9. 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.
10. Read, interpret, and evaluate articles from the behavior analytic literature.

Course Relationship 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. 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 Professional and Ethical Compliance Code for Behavior Analysts. The Professional and Ethical Compliance Code for Behavior Analysts is listed on the following website: <http://bacb.com/wp-content/uploads/2016/03/160321-compliance-code-english.pdf>. For more information on the Board and the examination, please visit the Board's website at www.bacb.com.

Required Textbooks

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

Foxx, R.M., & Mulick, J.A. (2015). *Controversial therapy for autism and intellectual disabilities: Fad, fashion, and science in professional practice (2nd Edition)*. New York, NY: Routledge. ISBN 978-1-138-80223-0

Recommended Textbooks

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

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.

Students will need to have access to a scanner in order to scan and upload their completed assignments. Each assignment must be scanned into a single document and saved as a pdf file. No photographs will be accepted. Likewise, multiple one page scans (e.g., 5 single page pdf files instead of a single 5 page file) will also not be accepted. Many home printers have scanning capability, and one can also scan at Fedex Office, Staples, or other stores. Finally, one's employer may be able to make scanning available on request.

Only assignments submitted in Microsoft Word or in PDF files will be accepted. No assignments in any other file format will be accepted.

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:

Dermer, M.L., & Hoch, T.A. (1999). Improving descriptions of single-subject experiments in research texts written for undergraduates. *Psychological Record*, 49 (1), 49-66.

McGonigle, J.J., Rojahn, J., Dixon, J., & Strain, P.S. (1987). Multiple treatment interference in the alternating treatments design as a function of the intercomponent interval length. *Journal of Applied Behavior Analysis*, 20 (2), 171-178.

Sindelar, P.T., Rosenberg, M.S., & Wilson, R.J. (1985). An adapted alternating treatments design for instructional research. *Education and Treatment of Children*, 8 (1), 67-76.

Watson, J.E., Singh, N.N., & Winton, A.S. (1985). Comparing interventions using the alternating treatments design. *Behaviour Change*, 2 (1), 13-20.

Automatically reinforced behavior:

Contrucci Kuhn, S.A., & Triggs, M. Analysis of social variables when an initial functional analysis indicates automatic reinforcement as the maintaining variable for self-injurious behavior. *Journal of Applied Behavior Analysis*, 42 (3), 679-683.

- Falcomata, T.S., Roane, H.S., Hovanetz, A.N., Kettering, T.L., & Keeney, K.M. (2004). An evaluation of response cost in the treatment of inappropriate vocalizations maintained by automatic reinforcement. *Journal of Applied Behavior Analysis, 37* (1), 83-87.
- Groskreutz, M.Pl, Groskreutz, N.C., & Higbee, T.S. (2011). Response competition and stimulus preference in the treatment of automatically reinforced behavior: A comparison. *Journal of Applied Behavior Analysis, 44* (1), 211 – 215.
- Ing, A.D., Roane, H.S., & Veenstra, R.A. (2011). Functional analysis and treatment of coprophagia. *Journal of Applied Behavior Analysis, 44* (1), 151 – 155.
- Rapp, J.T. (2006). Toward an empirical method for identifying matched stimulation for automatically reinforced behavior: A preliminary investigation. *Journal of Applied Behavior Analysis, 39* (1), 137-140.

College instruction:

- Critchfield, T.S., & Fienup, D.M. (2010). Using stimulus equivalence technology to teach statistical inference in a group setting. *Journal of Applied Behavior Analysis, 43* (4), 763-768.
- Fienup, D.M., Hamelin, J., Reyes-Giordano, K., & Falcomata, T.S. (2011). College-level instruction: Derived relations and programmed instruction. *Journal of Applied Behavior Analysis, 44* (2), 413-416.
- Perrin, C.J., Miller, N., Haberlin, A.T., Ivy, J.W., Meindl, J.N., & Neef, N.A. (2011). Measuring and reducing college students' procrastination. *Journal of Applied Behavior Analysis, 44* (3), 463-474.
- Saville, B.K., Zinn, T.E., Neef, N.A., Van Norman, R., & Ferreri, S.J. (2006). A comparison of interteaching and lecture in the college classroom. *Journal of Applied Behavior Analysis, 39* (1), 49-61.
- Walker, B.D., Rehfeldt, R.A., & Ninness, C. (2010). Using the stimulus equivalence paradigm to teach course material in an undergraduate rehabilitation course. *Journal of Applied Behavior Analysis, 43* (615-633).

Community applications:

- Belfiore, P.J., Browder, D.M., & Mace, F.C. (1993). Effects of community and center-based settings on the alertness of persons with profound mental retardation. *Journal of Applied Behavior Analysis, 26* (3), 401-402.
- Cope, J.G., & Allred, L.J. (1991). Community intervention to deter illegal parking in spaces reserved for the physically disabled. *Journal of Applied Behavior Analysis, 24* (4), 687-693.
- Ledgerwood, D.M., Alessi, S.M., Hanson, T., Godley, M.D., & Petry, N.M. (2008). Contingency management for attendance to group substance abuse treatment

- administered by clinicians in community clinics. *Journal of Applied Behavior Analysis*, 41 (4), 517-526.
- Manuel, J.C., Sunseri, M.A., Olson, R., & Scolari, M. (2007). A diagnostic approach to increase reusable dinnerware selection in a cafeteria. *Journal of Applied Behavior Analysis*, 40 (2), 301-310.
- O'Connor, R.T., Lerman, D.C., Fritz, J.N., & Hodde, H.B. (2010). Effects of number and location of bins on plastic recycling at a university. *Journal of Applied Behavior Analysis*, 43 (4), 711-715.

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.
- Scjhiff, 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.

Driver safety:

- Arnold, M.L., & Van Houten, R. (2011). Increasing following headway with prompts, goal setting, and feedback in a driving simulator. *Journal of Applied Behavior Analysis*, 44(2), 245-254.
- Clayton, M., Helms, B., & Simpson, C. (2006). Active prompting to decrease cell phone use and increase seat belt use while driving. *Journal of Applied Behavior Analysis*, 39 (3), 341-349.
- Crowley-Koch, B.J., Van Houten, R., & Lim, W. (2011). Effects of pedestrian prompts on motorist yielding at crosswalks. *Journal of Applied Behavior Analysis*, 44 (1), 121-126.

Van Houten, R., Hilton, B., Schulman, R., & Reagan, I. (2011). Using accelerator pedal force to increase seat belt use of service vehicle drivers. *Journal of Applied Behavior Analysis, 44* (1), 41 – 49.

VanWagner, M., Van Houten, R., & Betts, B. (2011). The effects of a rectangular rapid-flashing beacon on vehicle speed. *Journal of Applied Behavior Analysis, 44* (3), 629-633.

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.

Functional analysis methodology:

Bloom, S.E., Iwata, B.A., Fritz, J.N., Roscoe, E.M., & Carreau, A.B. (2011). Classroom application of a trial based functional analysis. *Journal of Applied Behavior Analysis, 44* (1), 19-31.

Dicesare, A., McAdam, D.B., Toner, A., & Varrell, J. (2005). The effects of methylphenidate on a functional analysis of disruptive behavior: A replication and extension. *Journal of Applied Behavior Analysis, 38* (1), 125-128.

Langthorne, P., & McGill, P. (2011). Assessing the social acceptability of the functional analysis of problem behavior. *Journal of Applied Behavior Analysis, 44* (2), 403-407.

Piazza, C.C., Fisher, W.W., Brown, K.A., Shore, B.A., Patel, M.R., Katz, R.M., Sevin, B.M., Gulotta, C.S., & Blakely-Smith, A. (2003). Functional analysis of inappropriate mealtime behaviors. *Journal of Applied Behavior Analysis, 36* (2), 187-204.

Rispoli, M., O'Reilly, M., Lang, R., Machalicek, W., Davis, T., Lancioni, G., & Sigafos, J. (2011). Effects of motivating operations on problem behavior and academic behavior in classrooms. *Journal of Applied Behavior Analysis, 44* (1), 187-192.

Geriatrics:

- Buchanan, J.A., & Fisher, J.E. (2002). Functional assessment and noncontingent reinforcement in the treatment of disruptive vocalization in elderly dementia patients. *Journal of Applied Behavior Analysis, 35* (1), 99-103.
- Burgio, L.D., & Burgio, K.L. (1986). Behavioral gerontology: Application of behavioral methods to the problems of older adults. *Journal of Applied Behavior Analysis, 19* (4), 321-328.
- Dwyer-Moore, K.J., & Dixon, M.R. (2007). Functional analysis and treatment of problem behavior of elderly adults in long-term care. *Journal of Applied Behavior Analysis, 40* (4), 679-683.
- Gallagher, S.M., & Keenan, M. (2000). Independent use of activity materials by the elderly in a residential setting. *Journal of Applied Behavior Analysis, 33* (3), 325-328.
- Trahan, M.A., Kahng, S.W., Fisher, A.B., & Hausman, N.L. (2011). Behavior analytic research on dementia in older adults. *Journal of Applied Behavior Analysis, 44* (3), 687-691.

Parenting:

- Allen, K.D., & Warzak, W.J. (2000). The problem of parental nonadherence in clinical behavior analysis: Effective treatment is not enough. *Journal of Applied Behavior Analysis, 33* (3), 373-391.
- Gortmaker, V.J., Daly, E.J., McCurdy, M., Persampieri, M.J., & Hergenrader, M. (2007). Improving reading outcomes for children with learning disabilities: Using brief experimental analysis to develop parent-tutoring interventions. *Journal of Applied Behavior Analysis, 40* (2), 203-221.
- Lafasakis, M., & Sturmey, P. (2007). Training parent implementation of discrete-trial teaching: Effects on generalization of parent teaching and child correct responding. *Journal of Applied Behavior Analysis, 40* (4), 685-689.
- Phaneuf, L., & McIntyre, L.L. (2007). Effects of individualized video feedback combined with group parent training on inappropriate maternal behavior. *Journal of Applied Behavior Analysis, 40* (4), 737-741.
- Thompson, R.H., Bruzek, J.L., & Cotnoir-Bichelman, N.M. (2011). The role of negative reinforcement in infant caregiving: An experimental simulation. *Journal of Applied Behavior Analysis, 44* (2), 295 – 304.

Psychiatric issues:

- Dozier, C.L., Iwata, B.A., & Worsdell, A.S. (2011). Assessment and treatment of foot-shoe fetish displayed by a man with autism. *Journal of Applied Behavior Analysis, 44* (1), 133-137.

- Lang, R., Regeister, A., Mulloy, A., Rispoli, M., & Botout, A. (2011). Behavioral intervention to treat selective mutism across multiple social situations and community settings. *Journal of Applied Behavior Analysis, 44* (3), 623-628.
- Reyes, J.R., Vollmer, T.R., & Hall, A. (2011). Replications and extensions in arousal assessment for sex offenders with developmental disabilities. *Journal of Applied Behavior Analysis, 44* (2), 369-373.
- Sparling, J., Wilder, D.A., Kondash, J., Boyle, M., & Compton, M. (2011). Effects of interviewer behavior on accuracy of children's responses. *Journal of Applied Behavior Analysis, 44* (3), 587-592.
- Travis, R., & Sturmey, P. (2010). Functional analysis and treatment of the delusional statements of a man with multiple disabilities: A four year follow-up. *Journal of applied Behavior Analysis, 43* (4), 745-749.

Sports applications:

- Reed, D.D., Critchfield, T.S., & Martens, B.K. (2006). The generalized matching law in elite sport competition: Play calling as operant choice. *Journal of Applied Behavior Analysis, 39* (3), 281-297.
- Smith, S.L., & Ward, P. (2006). Behavioral interventions to improve performance in collegiate football. *Journal of Applied Behavior Analysis, 39* (3), 385-391.
- Stokes, J.V., Luiselli, J.K., & Reed, D.D. (2010). A behavioral intervention for teaching tackling skills to high school football athletes. *Journal of Applied Behavior Analysis, 43* (3), 509 – 512.
- Stokes, J.V., Luiselli, J.K., Reed, D.D., & Fleming, R.K. (2010). Behavioral coaching to improve offensive line pass-blocking skills of high school athletes. *Journal of Applied Behavior Analysis, 43* (3), 463-472.
- Vollmer, T.R., & Bourret, J. (2000). An application of the matching law to evaluate the allocation of two-and three-point shots by college basketball players. *Journal of Applied Behavior Analysis, 33* (2), 137-150.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

Tk20 Performance-Based Assessment Submission Requirement

It is critical for the special education program to collect data on how our students are meeting accreditation standards. Every teacher candidate/student registered for an EDSE course with a required Performance-based Assessment (PBA) is required to upload the PBA to Tk20 (regardless of whether a course is an elective, a one-time course or part of an undergraduate minor). A PBA is a specific assignment, presentation, or project that best demonstrates one or more CEC, InTASC or other standard connected to the course. A PBA is evaluated in two ways.

The first is for a grade, based on the instructor's grading rubric. The second is for program accreditation purposes. Your instructor will provide directions as to how to upload the PBA to Tk20.

For EDSE 621, the required PBA is Make Your Own Experiment and Final Exam Feedback. Failure to submit the assignment to Tk20 will result in reporting the course grade as Incomplete (IN). Teacher candidates/students have until five days prior to the University-stated grade change deadline to upload the required PBA in order to change the course grade. When the PBA is uploaded, the teacher candidate/student is required to notify the instructor so that the "IN" can be changed to a grade. If the required PBA is not uploaded five days prior to the University-stated grade change deadline and, therefore, the grade not changed, it will become an F. Please check to verify your ability to upload items to Tk20 before the PBA due date.

Assignments

Performance-based Assessment (Tk20 submission required)

Final Examination. This test will consist of 50 items (worth 2 points each), and will be given as a pretest on the first night of class, and a parallel form as a final exam on the last night 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 TK20 after receiving it.

Make Your Own Experiment. You will be provided with 10 scenarios. You will choose two scenarios for which you will complete this project. You will use a different experimental design and a different data collection method for each of the two scenarios you choose. For each of these scenarios, instructions are as follows:

- A- develop a behavioral definition for the identified problem behavior (2 points);
- B- select a measure for the behavior of interest (and give the rationale for selecting this measure) (2 points);
- C- develop a recording form for collecting data (2 points);
- D- write step by step instructions for collecting data, ensuring that these instructions:
 - a. are bulleted
 - b. use active voice
 - c. specify only one implementer behavior per step
 - d. instruct the implementer what *to do*
 - e. use only as many words as is necessary
 - f. provide steps in linear order
 - g. include only necessary steps (necessary)
 - h. include all necessary steps (sufficient) (8 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- Scan all of this into a single document, and submit, in PDF form.

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.

A total of 40 points (20 for each scenario selected) is possible.

College Wide Common Assessment (Tk20 submission required)

Not applicable.

Performance-based Common Assignments (No Tk20 submission required.)

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. Making both posts on time earns up to 2 points per discussion board forum. Links for discussion board forums will only be available until the week after postings were due; no postings can be made after that time. Missed posts will earn zero points.

Problem Sets. You will complete these per instructions contained on each problem set, and submit them through Blackboard 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. ALL PROBLEM SETS MUST BE SUBMITTED AS EITHER SINGLE WORD DOCUMENTS OR SINGLE PDF FILES. NO OTHER FORMATS WILL BE ACCEPTED. MULTIPLE FILES WILL NOT BE SUBMITTED – ONLY A SINGLE FILE PER PROBLEM SET. ALL GRAPHS MUST BE HAND DRAWN, ON GRAPH PAPER, AND MUST BE SCANNED FULL SIZE AND INCLUDED IN THE SINGLE DOCUMENT WITH THE REST OF THE PROBLEM SET. JPGS, OR PHOTOGRAPHS DROPPED INTO WORD DOCUMENTS OR OTHER DOCUMENTS WILL NOT BE ACCEPTED.

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). For each article, simply download the appropriate Research Worksheet outline for your article, and answer the questions that are there – in phrases or sentences, but no paragraphs. Where you are asked for references for other works written by the authors, give APA Sixth Edition references for no more than four from each of the article's authors. 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.

CITI Training Module. You will access and complete the CITI Human Subjects Protections training module before Week 8, and upload the certificate of completion in the link provided in the Week 8 folder. You will earn 10 points for completing this module.

Other Assignments

Extra Credit – Research Worksheets. 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 9 April 2017, for up to 4 points per worksheet. No more than 5 extra credit Research Worksheets may be submitted. **NO EXTRA CREDIT RESEARCH WORKSHEETS WILL BE ACCEPTED AFTER 12 MAY 2017.**

Course Policies and Expectations

Attendance/Participation

All students are expected to be present, in Blackboard Collaborate, and ready to work, at 5:30 pm on Synchronous Discussion days. Your instructor will take a screen shot of the listing of those present at the beginning of each session. All whose names are listed at in that screen shot will earn 1 point for being present on time. All students are expected to remain for the entire Synchronous Discussion session, each session. Your instructor will likewise take a screen shot of the listing of names at the end of each Synchronous Discussion session, and all students whose names are on the list at that time will earn 1 point for being present at that time. Arriving late, leaving early, or absence from a Synchronous Discussion will preclude opportunity for earning attendance points. Each student is expected to contribute to each Synchronous Discussion by speaking. This means that each student's microphone must work; participating from a computer without a working microphone will preclude opportunity to participate. Likewise, typing one's comments or questions will not count toward contribution points. Contributing to a synchronous discussion by speaking will earn 2 points per synchronous discussion. Absence from a discussion precludes opportunity to earn participation points.

Late Work

There is much to be done in this course, and it is very easy for one to become behind if one doesn't keep up. All work is due by the dates listed in the schedule, below. Late submissions will be assessed a 10% possible point penalty. No work will be accepted after the final exam has been submitted.

Grading Scale

Assignment Type	Possible Points per Instance	Number of instances	Points Possible for Assignment Type	Cumulative Points
Discussion Board items	2 points per item	26 items	52 points possible	52 points possible
Problem Sets	10 points per set	8 sets	80 points possible	132 points
Research Worksheets	10 points per worksheet	5 worksheets	50 points possible	182 points
CITI Human Subjects Module	10 points	1 module	10 points possible	192 points
Make Your Own Experiment	20 points per experiment	2 experiments	40 points possible	232 points
Final Exam	100 points per exam	1 exam	100 points possible	332 points
Attendance (Synchronous Discussions)	2 points per Synchronous Discussion	5 Synchronous Discussions	10 points possible	342 points
Participation (Synchronous Discussions)	2 points per Synchronous Discussion	5 Synchronous Discussions	10 points possible	352 points
A = 334 – 352 points	A- = 316 - 333 points	B = 281 – 315 points	C = 246 - 280 points	F < 246 points

Professional Dispositions

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

Core Values Commitment

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

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason 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.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/api/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://course support.gmu.edu/>.
- 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/>).
- 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/>).

- The George Mason University Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to <http://studentsupport.gmu.edu/>, and the OSS staff will follow up with the student.

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/>.

Class Schedule

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

In the table below, ABA refers to the Cooper, Heron, and Heward text (Applied Behavior Analysis), and CT refers to the Controversial Therapies text. NLT means No Later Than, RBNR means Recommended But Not Required, and EC means Extra Credit. Note: All extra credit assignments are optional, and not participating or completing them will have no impact on your final grade.

Date	Topics	Assignments / Activities
Week 1 Week of 23 Jan 17	Review Syllabus Review Honor Code Pretest	<input type="checkbox"/> Complete pretest online NLT 4:30 pm 1/30/17
Week 2 Week of 30 Jan 17	Introduction to Single-subject design	<input type="checkbox"/> Read <u>CT</u> Ch 1 and 2 <input type="checkbox"/> Read <u>ABA</u> Ch 1, pp. 65 – 69 <input type="checkbox"/> Complete DB 1 and 2 NLT 4:30 pm 2/6/17
Week 3 Week of 6 Feb 17	Measurement – Why bother? Direct Measures of Behavior: count, cumulative count, duration, rate, latency, interresponse time, extensity, intensity	<input type="checkbox"/> Read <u>CT</u> Ch 3 and 4 <input type="checkbox"/> Read <u>ABA</u> pp. 73 – 80, 83 – 90 <input type="checkbox"/> Complete DB 3 and 4 NLT 4:30 pm 2/13/17 <input type="checkbox"/> Complete Problem Set 1 NLT 4:30 pm 2/13/17 <input type="checkbox"/> SYNCHRONOUS DISCUSSION THRU BLACKBOARD COLLABORATE ON TUES 7 FEB AT 5:30 PM US EASTERN TIME

Date	Topics	Assignments / Activities
Week 4 Week of 13 Feb 17	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	<input type="checkbox"/> Read <u>CT</u> Ch 5 and 6 <input type="checkbox"/> Read <u>ABA</u> pp. 81 – 82, 85 – 87, 90 – 100 <input type="checkbox"/> Complete DB 5 and 6 NLT 4:30 pm 2/20/17 <input type="checkbox"/> Complete Problem Set 2 NLT 4:30 pm 2/20/17 <input type="checkbox"/> SYNCHRONOUS DISCUSSION THRU BLACKBOARD COLLABORATE ON TUES 14 FEB AT 5:30 PM US EASTERN TIME
Week 5 Week of 20 Feb 17	Data Management: Graphic data display and graph preparation; maintaining data tables; data summary; equal interval graphs; cumulative count graphs	<input type="checkbox"/> Read <u>CT</u> Ch 7 and 8 <input type="checkbox"/> Read <u>ABA</u> Ch 6 <input type="checkbox"/> Complete DB 7 and 8 NLT 4:30 pm 2/27/17 <input type="checkbox"/> Complete Problem Set 3 NLT 4:30 pm 2/27/17
Week 6 Week of 27 Feb 17	Standard Behavior Charts	<input type="checkbox"/> Read <u>CT</u> Ch 9 and 10 <input type="checkbox"/> Read <u>ABA</u> Ch 7 <input type="checkbox"/> Complete DB 9 and 10 NLT 4:30 pm 3/6/17 <input type="checkbox"/> Complete Problem Set 4 4:30 pm NLT 3/6/17
Week 7 6 Mar 17	Withdrawal Designs (AB, ABA, ABAB, BAB, etc.); Component Analysis; Parametric Analysis	<input type="checkbox"/> Read <u>CT</u> Ch 11 and 12 <input type="checkbox"/> Read <u>ABA</u> pp. 177 – 186 <input type="checkbox"/> Complete DB 11 and 12 NLT 4:30 pm 3/20/17 <input type="checkbox"/> Complete Problem Set 5 NLT 4:30 pm 3/20/17 <input type="checkbox"/> CITI Training Certificate due NLT 4:30 pm 3/20/17
Week 8 Week of 20 Mar 17	Alternating Treatments Designs and Pairwise Comparison Designs	<input type="checkbox"/> Read <u>CT</u> Ch 13 and 14 <input type="checkbox"/> Read <u>ABA</u> pp. 187 – 194 <input type="checkbox"/> Read Watson et al. (1985), Sindelar et al. (1985), & McGonigle et al. (1987) <input type="checkbox"/> Complete DB 13 and 14 NLT 4:30 pm 3/27/17 <input type="checkbox"/> Complete Problem Set 6 NLT 4:30 pm 3/27/17
Week 9 Week of 27 Mar 17	Multiple Baseline Designs	<input type="checkbox"/> Read <u>CT</u> Ch 15 and 16 <input type="checkbox"/> Read <u>ABA</u> Ch 9 <input type="checkbox"/> Complete DB 15 and 16 NLT 4:30 pm 4/3/17 <input type="checkbox"/> Complete Problem Set 7 NLT 4:30 pm 4/3/17
Week 10 Week of 3 Apr 17	Measuring choice, preference, and other phenomena; Combining measurement and design elements to solve complex problems	<input type="checkbox"/> Read <u>CT</u> Ch 17 and 18 <input type="checkbox"/> Read <u>ABA</u> Ch 5, 10 <input type="checkbox"/> Complete DB 17 and 18 NLT 4:30 pm 4/10/17 <input type="checkbox"/> Complete DB 8 NLT 4:30 pm 4/10/17 <input type="checkbox"/> RW 1 Due NLT 4:30 pm 4/10/17

Date	Topics	Assignments / Activities
Week 11 Week of 10 Apr 17	General Issues in Measurement and Experimental Design – Review of Designs and Functional Control	<input type="checkbox"/> Read <u>CT</u> Ch 19 and 20 <input type="checkbox"/> Complete DB 19 and 20 NLT 4:30 pm 4/17/17 <input type="checkbox"/> RW 2 and 3 Due NLT 4:30 pm 4/17/17
Week 12 Week of 17 Apr 17	Make Your Own Experiment Week! Discussion and peer review	<input type="checkbox"/> Read <u>CT</u> Ch 21 and 22 <input type="checkbox"/> Complete DB 21 and 22 NLT 4/24/17 <input type="checkbox"/> RW 4 and 5 due NLT 4:30 pm 4/24/17 <input type="checkbox"/> SYNCHRONOUS DISCUSSION THRU BLACKBOARD COLLABORATE AT 5:30 PM US EASTERN TIME ON 18 APR
Week 13 Week of 24 Apr 17	Make Your Own Experiment Week! Discussion and peer review	<input type="checkbox"/> Read <u>CT</u> chapters 23 and 24 <input type="checkbox"/> Complete DB 23 and 24 NLT 4:30pm 5/1/17 <input type="checkbox"/> SYNCHRONOUS DISCUSSION THRU BLACKBOARD COLLABORATE ON 25 APR AT 5:30 PM US EASTERN TIME
Week 14 Week of 1 May 17	Measuring psychiatric symptoms and medication effects Final Make Your Own Experiment discussion and peer review	<input type="checkbox"/> Read <u>CT</u> Chapters 25 and 26 <input type="checkbox"/> EXTRA CREDIT: Complete DB 25 and 26 NLT 4:30 pm 5/8/17 <input type="checkbox"/> SYNCHRONOUS DISCUSSION THRU BLACKBOARD COLLABORATE ON 2 MAY AT 5:30 PM US EASTERN TIME
Week 15 Week of 8 May 17	Final Exam Final Exam and Make Your own Experiment Project Due No Later than 12 May at 11:59 pm!	<input type="checkbox"/> EXTRA CREDIT Read <u>CT</u> Ch 27 and 28 and Respond to DB Items 27 and 28 on Blackboard before 11:59 pm on 5/12/17 <input type="checkbox"/> Submit Make Your own Experiments documents to TK20 no later than 11:59 pm on 5/12/17 <input type="checkbox"/> Complete your final exam online by 5/12/17

Assessment Rubric(s)
Included with each assignment.