



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

Fall 2014

EDSE 621 ML1: Applied Behavior Analysis: Empirical Bases

CRN: 77439, 3 - Credits

<b>Instructor:</b> Dr. Theodore Hoch	<b>Meeting Dates:</b> 8/25/2014 - 12/15/2014
<b>Phone:</b> 703-993-5245 703-987-8928	<b>Meeting Day(s):</b> Synchronous meetings on Tuesdays (9/2, 9/9, 11/11, 11/25, & 12/2 Only)
<b>E-Mail:</b> thoch@gmu.edu	<b>Meeting Time(s):</b> 5:30pm – 6:20pm on those dates listed above through Blackboard Collaborate; multiple times weekly, asynchronously, throughout the course, through Blackboard
<b>Office Hours:</b> Tuesday and Thursday from 12:30 – 2:30 in office, by phone, and through Blackboard Collaborate	<b>Meeting Location:</b> Mason Online, NET NET

**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.

### **DELIVERY METHOD:**

This course will be delivered online using both synchronous and asynchronous formats via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard course site using your Mason email name (everything before “@masonlive.gmu.edu) and email password. The course site will be available on 25 August 2014.

### **TECHNICAL REQUIREMENTS:**

To participate in this course, students will need the following resources:

- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox. Opera and Safari are not compatible with Blackboard;
- Consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course
- 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 the course requirements.
- The following software plug-ins for PCs and Macs respectively, available for free downloading by clicking on the link next to each plug-in:
  - Adobe Acrobat Reader: <http://get.adobe.com/reader/>
  - Windows Media Player: <http://windows.microsoft.com/en-US/windows/downloads/windows-media-player>
  - Apple QuickTime Player: [www.apple.com/quicktime/download/](http://www.apple.com/quicktime/download/)
- A headset microphone for use with the Blackboard Collaborate web conferencing tool

### **EXPECTATIONS:**

- **Course Week:** Refer to the asynchronous bullet below if your course is asynchronous or the synchronous bullet if your course is synchronous.
  - **Asynchronous:** Because online courses do not have a “fixed” meeting day, our week will **start** on Monday and **finish** on Sunday.
  - **Synchronous:** Our course week will begin on the day that our synchronous meeting takes place as indicated on the Schedule of Classes.
- **Log-in Frequency:** Refer to the asynchronous bullet below if your course is asynchronous or the synchronous bullet if your course is synchronous.
  - **Asynchronous:** Students must actively check the course Blackboard site and their GMU email for communications from the instructor, at a minimum this should be 2 times per week.
  - **Synchronous:** Students must log-in for all scheduled online synchronous meetings. In addition, students must actively check the course Blackboard site

and their GMU email for communications from the instructor, at a minimum this should be 2 times per week.

- **Participation:** Students are expected to actively engage in all course activities throughout the semester, which include viewing of 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 are expected to seek assistance if they are struggling with technical components of the course. Contact ITU (<http://itservices.gmu.edu/help.cfm>) at (703) 993-8870 or [support@gmu.edu](mailto:support@gmu.edu).
- **Technical Issues:** Students should expect that they could experience some technical difficulties at some point in the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- **Workload:** Expect to log in to this course **at least three times a week** to read announcements, participate in the discussions, and work on course materials. Remember, this course is **not** self-paced. There are **specific deadlines** and **due dates** listed in the **CLASS SCHEDULE** section of this syllabus to which you are expected to adhere. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

**Netiquette:** Our goal is to be **collaborative**, not combative. Experience shows that even an innocent remark in the online environment can be misconstrued. I suggest that you always re-read your responses carefully before you post them to encourage others from taking them as personal attacks. **Be positive in your approach to others and diplomatic with your words.** I will do the same. Remember, you are not competing with each other but sharing information and learning from one another as well as from the instructor.

### **Nature of Course Delivery**

Learning activities include the following:

1. Asynchronous Class lecture and discussion
2. Synchronous discussion
3. Application activities
4. Small group activities and assignments
5. Video and other media supports
6. Research and activities
7. 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

Cooper, J.O., Heron, T.E., & Heward, W.L. (2007). *Applied behavior analysis (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>

## Recommended Textbooks

None, although those wishing to complete the optional, extra credit assignment listed later in 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.

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.

## 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., Haberman, 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, 43* (4), 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., Regeher, 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 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 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. All assignments are due no later than two weeks after they first become available. 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 submitted after one has begun the final exam.

The Final Exam is available only between midnight on 3 December 2014 and 11:59 pm on 15 December 2014, 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

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
Embedded Quiz Questions	1 point per question	27 questions	27 points possible	89 points
Synchronous Disussions	5 points per discussion	5 discussions	25 points possible	114 points possible
Problem Sets	10 points per set	8 sets	80 points possible	194 points
Research Worksheets	10 points per worksheet	5 worksheets	50 points possible	244 points
CITI Human Subjects Module	10 points	1 module	10 points	254 points
Make Your Own Experiment	16 points per experiment	2 experiments	32 points possible	286 points
Final Exam	50 points per exam	1 exam	50 points possible	316 points
A = 301 – 316 points	A- = 284 - 300 points	B = 253 - 283 points	C = 222 - 252 points	F < 222 points

## Assignments

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

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 (**for the experimental scenario**), 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.

## **Performance-based Common Assignments (No TaskStream 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.

**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.

**CITI Training Module.** You will access and complete the CITI Human Subjects Protections training module during Week 12, and upload the certificate of completion in the link provided in that module. You will earn 10 points for completing this module.

### **Other Assignments.**

**Embedded Quiz Questions.** Several lesson recordings have quiz questions embedded in them. Please answer each of these questions. Each question is worth 1 point, and there are 27 questions embedded in the recordings.

**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 – YOU MAY COMPLETE AS MANY EXTRA CREDIT ASSIGNMENTS AS YOU WISH – BUT ONLY 20 POINTS FROM EXTRA CREDIT WILL BE COUNTED TOWARD YOUR FINAL GRADE. ALL EXTRA CREDIT MUST BE COMPLETED AND SUBMITTED PRIOR TO TAKING YOUR FINAL EXAM. NO EXTRA CREDIT SUBMITTED AFTER YOUR FINAL EXAM WILL BE ACCEPTED.**

**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.

**GMU ABA Workshop Attendance.** There will be four workshops this semester. Notices for them are posted under the GMU ABA Workshops tab. Each day of attendance at a workshop will earn you 5 points. **NOTE: YOU MUST ATTEND A FULL DAY TO EARN 5 POINTS. NO PARTIAL CREDIT WILL BE GIVEN.**

## 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. 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 of 8/25/14 Week 1	Review Syllabus  Pretest	<input type="checkbox"/> Complete pretest NLT 9/1/14 <input type="checkbox"/> Complete embedded quizzes NLT 9/8/14
Week of 9/1/14 Week 2	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 9/15/14 <input type="checkbox"/> Complete embedded quizzes NLT 9/15/14 <input type="checkbox"/> RBNR SAFMEDS Set 1 <input type="checkbox"/> Participate in Synchronous Discussion on 9/2 at 5:30 pm through Blackboard Collaborate
Week of 9/8/14 Week 3	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 9/22 <input type="checkbox"/> Complete embedded quizzes NLT 9/22 <input type="checkbox"/> Complete Problem Set 1 NLT 9/22 <input type="checkbox"/> RBNR SAFMEDS Set 2 <input type="checkbox"/> Participate in Synchronous Discussion on 9/9 at 5:30 pm through Blackboard Collaborate
Week of 9/15/14 Week 4	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 9/29 <input type="checkbox"/> Complete Problem Set 2 NLT 9/29 <input type="checkbox"/> RBNR SAFMEDS Set 3 <input type="checkbox"/> EC Opportunity – Carbone Workshop on 9/19 and 9/20
Week of 9/22/14 Week 5	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 10/6 <input type="checkbox"/> Complete embedded quizzes NLT 10/6 <input type="checkbox"/> Complete Problem Set 3 NLT 10/6 <input type="checkbox"/> RBNR SAFMEDS Set 4
Week of 9/29/14	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 10/13

Week 6		<input type="checkbox"/> Complete Problem Set 4 NLT 10/13 <input type="checkbox"/> RBNR SAFMEDS Set 5
Week of 10/6/14 Week 7	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 10/20 <input type="checkbox"/> Complete embedded quizzes NLT 10/20 <input type="checkbox"/> Complete Problem Set 5 NLT 10/20 <input type="checkbox"/> RBNR SAFMEDS Set 6 <input type="checkbox"/> EC Opportunity – Reid Workshops on 10/10 and 10/11
Week of 10/13/14 Week 8	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 10/27 <input type="checkbox"/> Complete Problem Set 6 NLT 10/27 <input type="checkbox"/> RBNR SAFMEDS Set 7
Week of 10/20/14 Week 9	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 11/3 <input type="checkbox"/> Complete Problem Set 7 NLT 11/3 <input type="checkbox"/> RBNR SAFMEDS Set 8
Week of 10/27/14 Week 10	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 11/10 <input type="checkbox"/> Complete DB 8 NLT 11/10 <input type="checkbox"/> RBNR SAFMEDS Set 9
Week of 11/3/14 Week 11	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 11/17 <input type="checkbox"/> RBNR SAFMEDS Set 10 <input type="checkbox"/> EC Opportunity – McKeon Workshop on 11/7 and 11/8
Week of 11/10/14 Week 12	Make Your Own Experiment Week!	<input type="checkbox"/> Read <u>CT</u> Ch 21 and 22 <input type="checkbox"/> Complete DB 21 and 22 NLT 12/1 <input type="checkbox"/> Complete CITI Training NLT 12/1 <input type="checkbox"/> RBNR SAFMEDS Set 11 <input type="checkbox"/> Participate in Synchronous Discussion on 11/11 at 5:30 pm through Blackboard Collaborate
Week of 11/17/14 Week 13	Make Your Own Experiment Week!	<input type="checkbox"/> Read <u>CT</u> chapters 23 and 24 <input type="checkbox"/> Complete DB 23 and 24 NLT 12/15 (before your final exam) <input type="checkbox"/> RBNR SAFMEDS Set 12 <input type="checkbox"/> Participate in Synchronous Discussion on <b>11/25</b> at

		5:30 pm through Blackboard Collaborate
Week of 12/1/14 Week 14	Measuring psychiatric symptoms and medication effects	<input type="checkbox"/> Read <u>CT</u> Chapters 25 and 26 <input type="checkbox"/> Complete DB 25 and 26 NLT 12/15 (before final exam) <input type="checkbox"/> RBNR SAFMEDS Set 13 <input type="checkbox"/> Participate in Synchronous Discussion on 12/2 at 5:30 pm through Blackboard Collaborate <input type="checkbox"/> EC Opportunity – Gerhardt Workshop on 12/5 and 12/6
12/3/14 – 12/15/14 Week 15	Final Exam – must complete online no later than 11:59 pm US Eastern Time on 12/15/14	<input type="checkbox"/> Read <u>CT</u> Ch 27 and 28 and Respond to DB Items 27 and 28 on Blackboard NLT 12/15 (before you take your final exam) <input type="checkbox"/> Submit your required research worksheets NLT 12/15 (before you take your final exam) <b>NOTE: THESE CAN BE SUBMITTED AT ANY TIME DURING THE SEMESTER, BEFORE YOU TAKE YOUR FINAL EXAM</b> <input type="checkbox"/> Submit Make Your own Experiments documents to Taskstream no later than 11:59 pm on 12/15 (before you take your final exam) <input type="checkbox"/> Complete your final exam (NOT 11:59 pm on 12/15)