

GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
APPLIED BEHAVIOR ANALYSIS CERTIFICATE PROGRAM

EDSE 623 6A7 - Alternative Paths Training School (APTS) Cohort
ABA: ASSESSMENTS AND INTERVENTIONS
Spring 2011
Wednesdays 4:00 – 8:00 pm
5632 Mount Vernon Memorial Highway, Alexandria, VA 22309

INSTRUCTOR/CONTACT INFORMATION

Name: Sue Gross, M.A., B.C.B.A.
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Contact/Meetings: Your instructor does not have an office at George Mason University. Out-of-class meetings with the instructor will be held at the APTS Alexandria office, above, and can be arranged as needed by either phoning or e-mailing her.

COURSE DESCRIPTION

A Prerequisite

Completion of EDSE 619

B Description

This course further expands on the basic content of applied behavior analysis and teaches how to implement behavioral procedures and to develop behavioral programs for clients with fundamental behavioral needs.

NATURE OF COURSE DELIVERY

Lecture, discussion, written assignments, in-class exercises, and class discussion.

STUDENT OUTCOMES AND PROFESSIONAL STANDARDS

This course is designed to enable students to perform as described by the following objectives, which are taken from the Behavior Analyst Certification Board's *Task List and Guidelines for Responsible Conduct*, or from NCATE's *Program Standards*, as indicated below. (NCATE Standards are as follows:

Standard

- 1 Foundations
- 2 Development and Characteristics of Learners
- 5 Learning Environments and Social Interactions
- 6 Language
- 7 Instructional Planning

#Standard

- 3 Individual Learning Differences
- 4 Instructional Strategies
- 8 Assessment
- 9 Professional and Ethical Practice
- 10 Collaboration

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Course Objective Number	Objective	BACB TL or GRC Item	NCATE Program Standard										
			1	2	3	4	5	6	7	8	9	10	
1	Obtain informed consent within applicable ethical and legal standards.	TL 1-4								X	X	X	X
2	Assist the client with identifying lifestyle or systems change goals and targets for change that are consistent with applied dimension of applied behavior analysis, applicable laws, and the ethical and professional standards of the profession of applied behavior analysis.	TL 1-5, a-c		X	X					X	X	X	X
3	Initiate, continue, modify, or discontinue behavior analysis services only when the risk-benefit ratio of doing so is lower than the risk-benefit ratio of taking alternative actions.	TL 1-6								X	X	X	X
4	Use the most effective assessment and behavior change procedures within applicable ethical standards, taking into consideration the guideline of minimal intrusiveness of the procedure to the client.	TL 1-8			X	X				X	X	X	
5	Ensure that the dignity, health, and safety of one's clients are fully protected at all times.	TL 1-11					X			X	X	X	X
6	Give preference to assessment and intervention methods that have been scientifically validated, and use scientific methods to evaluate those that have not yet been scientifically validated.	TL 1-12	X							X	X	X	X
7	Explain and behave in accordance with the philosophical assumptions of behavior analysis, such as the lawfulness of behavior, empiricism, experimental analysis, and parsimony.	TL 2-1	X							X	X	X	X
8	Interpret articles from the behavior analytic literature.	TL 2-7	X	X	X	X	X	X	X	X	X	X	X
9	State the primary characteristics of and rationale for conducting a descriptive assessment.	TL 4-1								X	X	X	
10	Gather descriptive data.	TL 4-2								X	X	X	
11	Select and use various assessment methods.	TL 4-2, 4-3, & 4-5 a & b								X	X	X	
12	Organize and interpret descriptive data.	TL 4-3								X	X	X	
13	State the primary characteristics of and rationale for conducting a functional analysis as a form of assessment	TL 4-4								X	X	X	
14	Conduct functional analyses.	TL 4-5								X	X	X	
15	Organize and interpret functional analysis data.	TL 4-6								X	X	X	
16	Systematically manipulate independent variables to analyze their effects on treatment.	TL 5-1								X	X	X	
17	Use competency based training for persons who are responsible for carrying out behavioral assessment and behavior change procedures.	TL 10-1					X					X	X
18	Use effective performance monitoring and reinforcement systems.	TL 10-2					X					X	X
19	Design and use systems for monitoring treatment integrity.	TL 10-3					X					X	X
20	Establish support for behavior analysis services from persons directly and indirectly involved with these services.	TL 10-4					X					X	X
21	Secure support of others to maintain the clients' behavioral repertoires in their natural environments.	TL 10-5					X					X	X
22	Provide behavior analysis services I collaboration with others who support and / or provide services to one's clients.	TL 10-6					X					X	X
23	Reliance on scientific knowledge	GRC 1.01	X			X				X	X	X	
24	Professional and scientific relationships	GRC 1.06B								X	X	X	X

25	Responsibility	GRC 2.02	X	X						X	X	X	X
26	Definition of client	GRC 2.01										X	X
27	Consultation.	GRC 2.03										X	X
28	Treatment efficacy.	GRC 2.09	X		X	X				X	X	X	X
29	Interrupting or terminating services.	GRC 2.15								X	X	X	X
30	Assessing behavior.	GRC 3.0								X	X	X	
31	Environmental conditions that preclude implementation.	GRC 3.01				X	X			X	X	X	X

32	Environmental conditions that hamper implementation.	GRC 3.02				X	X		X	X	X	X
33	Functional Assessment.	GRC 3.03	X	X	X	X	X	X	X	X	X	X
34	Describing Program Objectives.	GRC 3.06						X	X	X	X	
35	Behavioral Assessment Approval.	GRC 3.07						X	X	X	X	
36	Describing conditions for program success.	GRC 3.08				X	X	X	X		X	X
Course Objective Number	Objective	BACB TL or GRC Item	NCATE Standard									
			1	2	3	4	5	6	7	8	9	10
37	Explaining assessment results.	GRC 3.09				X	X	X	X	X	X	X
38	The behavior analyst and the individual behavior change program.	GRC 4.0	X			X	X		X		X	X
39	Approving interventions.	GRC 4.01			X	X			X		X	X
40	Reinforcement / punishment.	GRC 4.02			X	X			X		X	X
41	Avoiding harmful reinforcers.	GRC 4.03			X	X			X		X	X
42	Ongoing data collection.	GRC 4.04	X			X			X	X	X	X
43	Program modifications.	GRC 4.05	X			X			X	X	X	X
44	Program modification consent.	GRC 4.06				X			X	X	X	X
45	Least restrictive procedures.	GRC 4.07	X			X			X	X	X	X
46	Termination criteria.	GRC 4.08									X	X
47	Terminating clients.	GRC 4.09									X	X
48	The behavior analyst as teacher and/or supervisor.	GRC 5.0	X				X				X	X
49	Designing competent training programs.	GRC 5.01	X				X				X	X
50	Limitations on training.	GRC 5.02	X				X				X	X
51	Providing behavior analysis principles in teaching.	GRC 5.07	X				X				X	X

REQUIRED TEXTS

Cooper, J.O., Heron, T.E., & Heward, W.L. (1987). *Applied behavior analysis*. Upper Saddle River, NJ: Prentice Hall. ISBN 0-675-20223-X.

O'Neill, R.E., Horner, R.H., Albin, R.W., Sprague, J.R., Storey, K., & Newton, J.S. (1997). *Functional assessment and program development for problem behavior: A practical handbook*. (2nd Ed.). New York, NY: Brooks/Cole. ISBN 0-534-26022-5.

Sidman, M. (2001). *Coercion and its fallout*. Boston, MA: Authors Cooperative. ISBN 1-888-83001-8

ADDITIONAL TEXT MATERIALS

You will need a copy of the Behavior Analyst Certification Board's *Task List and Guidelines for Responsible Conduct*. Download both from the Board's website at www.bacb.com.

ARTICLES

The following articles **provided on CD** are also available through the GMU Library website, at e-reserves. Each may be downloaded by going to Journal Finder from the Library's website, then clicking on the journal's title, then locating the article through the journal's contents. Articles marked with an **asterisk** are not assigned, but are **strongly recommended** reading to enhance the learner's breadth and scope of understanding of this topic.

Adkins, A.D., Singh, N.N., McKeegan, G.F., Lanier, A.E., & Oswald, D.P. (2002). Behavior treatment programs, readability, and treatment outcomes. *Research in Developmental Disabilities, 23*, 253-265.

Borrero, C.S.W., Vollmer, T.R., & Borrero, J.C. (2004). Combining descriptive and functional analysis logic to evaluate idiosyncratic variables maintaining aggression. *Research in Developmental Disabilities, 19*, 247-262.

- Carr, J.E., Austin, J.L., Britton, L.N., Kellum, K.K., & Bailey, J.S. (1999). An assessment of social validity trends in applied behavior analysis. *Behavioral Interventions, 14*, 223-231.
- Crosland, K.A., Zarcone, J.R., Lindauer, S.E., Valdovinos, M.G., Zarcone, T.J., Hellings, J.A., & Schroeder, S.R. (2003). Use of functional analysis methodologies in the evaluation of medication effects. *Journal of Autism and Developmental Disabilities, 33* (3), 271-279.
- Ellis, J., & Magee, S. (2004). Modifications to basic functional analysis procedures in school settings: A selective review. *Behavioral Interventions, 19*, 205-228.
- *English, C.L., & Anderson, C.M. (2004). Effects of familiar versus unfamiliar therapists on responding in the analog functional analysis. *Research in Developmental Disabilities, 25*, 39-55.
- Galiatsatos, G.T., & Graff, R.B. (2003). Combining descriptive and functional analysis to assess and treat screaming. *Behavioral Interventions, 18*, 123-138.
- Hagopian, L.P., Fisher, W.W., Thompson, R.H., Owen-DeSchryver, J., Iwata, B.A., & Wacker, D.P. (1997). Toward the development of structured criteria for interpretation of functional analysis data. *Journal of Applied Behavior Analysis, 30* (2), 313-326.
- Hanley, G.P., Iwata, B.A., & McCord, B.E. (2003). Functional analysis of problem behavior: A review. *Journal of Applied Behavior Analysis, 36* (2), 147-185.
- *Holden, B. (2002). Some limitations of functional analysis: Treatment of problem behaviors based on the study of alternative responses. *Behavioral Interventions, 17*, 191-209.
- Holden, B., & Gitlesen, J.P. (2004). Psychotropic medication in adults with mental retardation: Prevalence and prescription practices. *Research in Developmental Disabilities, 25*, 509-521.
- Jahr, E. (1998). Current issues in staff training. *Research in Developmental Disabilities, 19*, 73-87.
- *LeBlanc, L.A., Hagopian, L.P., Marhefka, J.M., & Wilke, A.E. (2001). Effects of therapist gender and type of attention on assessment and treatment of attention maintained destructive behavior. *Behavioral Interventions, 16*, 39-57.
- Matson, J.L., Luke, M.A., & Mayville, S.B. (2004). The effects of antiepileptic medications on the social skills of individuals with mental retardation. *Research in Developmental Disabilities, 25*, 219-228.
- *McAdam, D.B., DiCesare, A., Murphy, S., & Marshall, B. (2004). The influence of different therapists on functional analysis outcome. *Behavioral Interventions, 19*, 39-44.
- O'Brien, W.H. (1995). Inaccuracies in the estimation of functional relationships using self-monitoring data. *Journal of Behavior Therapy and Experimental Psychiatry, 26*, 351-357.
- *Patel, M.R., Carr, J.E., Kim, C., Robles, A., & Eastridge, D. (2000). Functional analysis of aberrant behavior maintained by automatic reinforcement: Assessments of specific sensory reinforcers. *Research in Developmental Disabilities, 21*, 393-407.
- Pelios, L., Morren, J., Tesch, D., & Axelrod, S. (1999). The impact of functional analysis methodology on treatment choice for self-injurious and aggressive behavior. *Journal of Applied Behavior Analysis, 32* (2), 185-195.

- Pyles, D.A.M., Muniz, K., Cade, A., & Silva, R. (1997). A behavioral diagnostic paradigm for integrating behavior analytic and psychopharmacological interventions for people with a dual diagnosis. *Research in Developmental Disabilities, 18* (3), 185-214.
- Reid, D.H., Parsons, J.B., Lattimore, L.P., Towery, D.L., & Reade, K.K. (2005). Improving staff performance through clinician application of outcome management. *Research in Developmental Disabilities, 26*, 101-116.
- *Richman, D.M., & Hagopian, L.P. (1999). On the effects of "quality" of attention in the functional analysis of destructive behavior. *Research in Developmental Disabilities, 20* (1), 51-62.
- Sevin, J.A., Bowers-Stephens, C., Hamilton, M.L., & Ford, A. (2001). Integrating behavioral and pharmacological interventions in treating clients with psychiatric disorders and mental
- *Smith, R.G., & Churchill, R.M. (2002). Identification of environmental determinants of behavior disorders through functional analysis of precursor behaviors. *Journal of Applied Behavior Analysis, 35* (2), 125-136.
- Sterling-Turner, H.E., & Watson, T.S. (2002). An analogue investigation of the relationship between treatment acceptability and treatment integrity. *Journal of Behavioral Education, 11* (1), 39-50.
- Sturme, P. (2001). The functional analysis checklist: Inter-rater and test-retest reliability. *Journal of Applied Research in Intellectual Disabilities, 14*, 141-146.
- Sturme, P. (2002). Mental retardation and concurrent psychiatric disorder: Assessment and treatment. *Current Opinion in Psychiatry, 15*, 480-495.
- *Tang, J.C., Patterson, T.G., & Kennedy, C.H. (2003). Identifying specific sensory modalities maintaining the stereotypy of students with multiple profound disabilities. *Research in Developmental Disabilities, 24*, 433-451.
- *Tarbox, J., Wallace, M.D., Tarbox, R.S.F., Landaburu, H.J., & Williams, W.L. (2004). Functional analysis and the treatment of low rate problem behavior in individuals with developmental disabilities. *Behavioral Interventions, 19*, 187-204.
- Vollmer, T.R., & Smith, R.G. (1996) Some current themes in functional analysis research. *Research in Developmental Disabilities, 17* (3), 229-249.

COURSE REQUIREMENTS

Requirements, Performance Based Assessments, and Criteria for Evaluation

Class Discussion Forums. For each of the weeks indicated in the schedule below, and in conjunction with your readings from the **Sidman (2001)** text, respond to the week's two Discussion Forums in class. It is very important to do the assigned reading prior to class in order to be a productive discussion participant.

Written Assignments. Each of these must be typed, and must be submitted on paper, in class. Each assignment is described below. Each assignment is due at the time of the class session indicated on the syllabus. On-time submissions can potentially earn all of the points for the given assignment; late submissions up to 90% of the possible points.

Research Worksheets. You will complete one research worksheet for each of two articles from our reading list, of which one must be an asterisked article, and submit both. You will choose one of these reviewed articles to present in class on the session indicated. **Up to 10 points for each research worksheet submitted.**

Operational Definition, Normative Rate, and Behavioral Objective Project. Involves writing an operational definition for the behavioral descriptors provided by the instructor; determining normative rate for each of the behaviors; and writing a behavioral objective targeting improvement toward slightly better than the normative rate for each. **Up to 60 points: 5 points for each of parts a-d for each of 3 target behaviors.**

Scatterplot Interpretation Project. You will be provided with three stimulus control scatterplots, and responses to interview questions asked about the scatterplots. Based on these, you will correctly describe patterns regarding occurrence and nonoccurrence of the targeted behaviors with regard to time and other events; and based on this analysis you will describe at least two initial changes directly and logically related to the scatterplot data and analysis to improve the situation. **Up to 30 points: 10 points for each scatterplot (6 points for each pattern description including information from both the scatterplot and the interview, 2 points for each of the two recommended changes).**

Function Relevant Treatment Project. You will be provided with the text of a completed functional assessment, which will include an operational definition of the targeted behavior, a scatterplot, text of the interview regarding the scatterplot, a behavioral diagnostic interview, and a completed QABF. Based on this completed assessment package, you will: 1) determine the normative rate for the behavior; 2) write a behavioral objective for the terminal state of the behavior; 3) describe the contingencies currently maintaining the problem behavior; 4) determine the normative rate for the alternative, replacement behavior specified; 5) write a behavioral objective for the terminal state of the alternative behavior; 6) compose preventive procedures to prevent occurrence of the targeted problem behavior; 7) compose instructional procedures to increase frequency of the alternative behavior (in the situations in which the problem behavior initially occurs); 8) compose reactive procedures to be conducted when the targeted problem behavior does occur; and submit all of this (including a project outline due on the session indicated, for instructor approval), with proper spelling, grammar, and punctuation, in a timely manner. **Up to 70 points: 2 points for each of parts 1-5, 20 points for each of 6-8.**

Extra Credit. Completing the following Behavior Development Solutions modules:

- ❖ Behavior Change Procedures
- ❖ Selecting Intervention Outcomes and Strategies

and e-mailing or hand delivering to your instructor the certificates of completion for each of these modules will earn 10 points of extra credit per certificate submitted.

Grading Scale

Given these assignments, the distribution of total possible points per assignment type and grading scale are as follows:

Description	Possible Points
Discussion Board Forums	16 points
Research Worksheets	20 points
OD, NR, & BO Project	60 points
Scatterplot Interpretation Project	30 points
Function Relevant Treatment Project	70 points
Total Possible Points	196 points

A=177-196 points; B=157-176 points; C=137-156 points; F < 137 points

TaskStream Assignment for EDSE 623: "Function Relevant Treatment" Project

Note: Every student registered for any EDSE course as of the Fall 2007 semester is required to submit signature assignments to TaskStream (regardless of whether a course is an elective, a one time course, or part of an undergraduate minor). TaskStream information is available at <http://gse.gmu.edu/programs/sped/>. Failure to submit the assignment to TaskStream will result in the course instructor reporting the course grade as Incomplete (IN). Unless this grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

SCHEDULE

Throughout the following table, ABA refers to the Cooper, Heron, and Heward (1987) text, Sidman refers to the Sidman (2001) text, O'Neill refers to the O'Neill et al. (1997) text, TL refers to the Task List, and GRC refers to the Guidelines for Responsible Conduct.

Class Week	Read Before Class	Do Before Class / Submit at Beginning of Class	Do During Class
1 1/5/11	N/A	N/A	Review syllabus Introduction to functional assessment, functional analysis, and correct composition
2 1/12	<u>ABA</u> Ch 3, pp. 509-511; <u>Sidman</u> Chs 1-2	Respond to Discussion Forums 1 & 2	Operational definitions, normative rate studies, developing overall goals and initial objectives Functional assessment screens (QABF, FAST, MAS)
3 1/19	<u>ABA</u> pp. 53-55, 143-144, 506-510; <u>Sidman</u> Chs 3-5	Respond to Discussion Forums 3 & 4 Scatterplot in-class exercise	Stimulus Control Scatterplots; ABC data collection; Intro to Interviewing; Bx Diag Int
4 1/26	<u>O'Neill</u> pp. 1-54 (FAI), 54-64 (FA procedures); <u>ABA</u> pp. 504-506; Borrero et al. (2004); Ellis & Magee (2004); <u>Sidman</u> Chs 6-8;	Respond to Discussion Forums 5 & 6 Oper Def, Norm Rate, & Beh Obj Project due Bx Diag Int in-class exercise	Functional Assessment Interview (FAI) Functional Analysis procedures and considerations

5 2/2	Pyles et al. (1997); Crosland et al (2003); Galiatsatos & Graff (2003); Holden & Gitlesen (2004); Matson et al. (2004); Sevin et al. (2001); <u>Sidman</u> Chs 9-11	Respond to Discussion Forums 7 & 8 FAI in-class exercise	Selecting and developing function-relevant treatment and instructional procedures Medications and physiological variables as dependent variables and various medication and physiology related issues
6 2/9	<u>ABA</u> pp. 511-524; <u>O'Neill</u> pp. 65-91; O'Brien 1995); Hagopian et al. (1997); Hanley et al. (2003); Jahr (1998); Sturmev (2001); Sturmev (2002); Reid et al. (2005); Sterling-Turner & Watson (2002); Adkins et al. (2002)	Scatterplot Interpretation Project due	Ensuring proper procedural implementation - where, when, by whom, etc.; training others to implement procedures; controlling for errors in implementation; studying effects of errors; integrity; and reliability
7 2/16	<u>ABA</u> Ch 28 Carr et al. 1999; <u>Sidman</u> Chs 12-14	Take a breath, since you'll be working <u>non-stop</u> on your Function Relevant Tx project for the next couple of weeks, and also since it counts for over 35% of your grade (no pressure)	Planning for generality and durability of behavior change Developing and incorporating social validity; Consumer satisfaction assessment
8 2/23	<u>Sidman</u> Chs 15-16	FRT Project Outline due	Termination and follow-up, and related ethical issues
9 3/2	Review <u>ABA</u> Chs 7-9; <u>Sidman</u> Chs 17-19	Research Worksheets due	Research Presentations
10 3/9	N/A	Function Relevant Treatment Project due	Submit projects: Complete course evaluations

ATTENDANCE

The instructor will take attendance at the beginning of each class session. Students are expected to attend all sessions of this course, be present on time, and remain in attendance and attentive throughout each class session. Students will not be able to make up Discussion Forums missed due to absence. Students missing a class session will be responsible for obtaining the notes for that session from a classmate.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].
- 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/>].

- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.htm>].
- 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.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

Campus Resources

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