

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

EDSE 623-6A6
APPLIED BEHAVIOR ANALYSIS: ASSESSMENT AND INTERVENTION
Spring 2011
3/17/11 – 5/26/11
Thursdays, 4:30 – 8:30

PROFESSOR

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COURSE DESCRIPTION

- A Prerequisite: EDSE 619
- B Description: Further expands on basic content of applied behavior analysis and teaches how to implement behavioral procedures and develop behavioral programs for clients with fundamental behavioral needs

NATURE OF COURSE DELIVERY

This course entails lecture, discussion, written assignments, in-class exercises, and asynchronous online discussion. Instruction focuses on conducting functional assessments and functional analyses; developing instructional and other intervention procedures based on outcome of these assessments and analyses; writing instructional or treatment procedures; implementing and training others to implement these procedures; managing implementation; data-based decision making in instructional and service delivery; and ethical issues in functional assessment, functional analysis, and function-relevant treatment or instructional delivery.

STUDENT OUTCOMES AND PROFESSIONAL STANDARDS

This course is designed to enable students to perform as described by the Council for Exceptional Children’s Standard 7 (Instructional Planning) and as described by the following objectives, which are taken from the Behavior Analyst Certification Board’s *Task List and Guidelines for Responsible Conduct*:

Course Objective Number	Objective	BACB TL or GRC Item
1	Obtain informed consent within applicable ethical and legal standards.	TL 1-4
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
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
4	Use the most effective assessment and behavior change procedures within applicable ethical	TL 1-8

	standards, taking into consideration the guideline of minimal intrusiveness of the procedure to the client.	
5	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
6	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
7	Interpret articles from the behavior analytic literature.	TL 2-7
8	State the primary characteristics of and rationale for conducting a descriptive assessment.	TL 4-1
9	Gather descriptive data.	TL 4-2
10	Select and use various assessment methods.	TL 4-2, 4-3, & 4-5 a & b
11	Organize and interpret descriptive data.	TL 4-3
12	State the primary characteristics of and rationale for conducting a functional analysis as a form of assessment	TL 4-4
13	Conduct functional analyses.	TL 4-5
14	Organize and interpret functional analysis data.	TL 4-6
15	Systematically manipulate independent variables to analyze their effects on treatment.	TL 5-1
16	Use competency based training for persons who are responsible for carrying out behavioral assessment and behavior change procedures.	TL 10-1
17	Use effective performance monitoring and reinforcement systems.	TL 10-2
18	Design and use systems for monitoring treatment integrity.	TL 10-3
19	Establish support for behavior analysis services from persons directly and indirectly involved with these services.	TL 10-4
20	Secure support of others to maintain the clients' behavioral repertoires in their natural environments.	TL 10-5
21	Provide behavior analysis services in collaboration with others who support and / or provide services to one's clients.	TL 10-6
22	Reliance on scientific knowledge	GRC 1.01
23	Professional and scientific relationships	GRC 1.06
24	Responsibility	GRC 2.02
25	Definition of client	GRC 2.01
26	Consultation.	GRC 2.03
27	Treatment efficacy.	GRC 2.09
28	Interrupting or terminating services.	GRC 2.15
29	Assessing behavior.	GRC 3.0
30	Environmental conditions that preclude implementation.	GRC 3.01
31	Environmental conditions that hamper implementation.	GRC 3.02
32	Functional Assessment.	GRC 3.03
33	Describing Program Objectives.	GRC 3.06
34	Behavioral Assessment Approval.	GRC 3.07
35	Describing conditions for program success.	GRC 3.08
36	Explaining assessment results.	GRC 3.09
37	The behavior analyst and the individual behavior change program.	GRC 4.0
38	Approving interventions.	GRC 4.01
39	Reinforcement / punishment.	GRC 4.02
40	Avoiding harmful reinforcers.	GRC 4.03
41	Ongoing data collection.	GRC 4.04
42	Program modifications.	GRC 4.05
43	Program modification consent.	GRC 4.06
44	Least restrictive procedures.	GRC 4.07
45	Termination criteria.	GRC 4.08
46	Terminating clients.	GRC 4.09
47	The behavior analyst as teacher and/or supervisor.	GRC 5.0
48	Designing competent training programs.	GRC 5.01
49	Limitations on training.	GRC 5.02

ATTENDANCE

You are expected to arrive on time for all class sessions, attend all class sessions, remain in class for the duration of each session, and to participate actively throughout the session.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

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.html>].
- 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/>].

EVIDENCE BASED PRACTICES

This course will incorporate the evidence-based practices (EBPs) relevant to developing safe, effective learning environments, Positive behavioral interventions and supports, and Functional behavioral assessments/Behavioral plans. These EBPs are indicated with an asterisk (*) in this syllabus. Evidence for the selected research-based practices is informed by meta-analysis, literature reviews/synthesis, the technical assistance networks which provide web-based resources, and the national organizations whose mission is to support students with disabilities. We address both promising and emerging practices in the field of special education. This course will provide opportunities for students to take an active, decision-making role to thoughtfully select, modify, apply, and evaluate EBPs in order to improve outcomes for students with disabilities.

TASKSTREAM

The signature assignment required for this course must be submitted electronically to Mason's NCATE management system, TaskStream via <https://www.taskstream.com>. Every student registered for any EDSE course as of the Fall 2007 semester is required to begin submitting signature assignments to TaskStream (regardless of whether a course is an elective or part of an undergraduate minor). TaskStream information is available at <http://gse.gmu.edu/programs/sped/>. Failure to submit the assignment to TaskStream may result in reporting the course grade as Incomplete (IN). See <http://gse.gmu.edu/programs/sped/taskstream/> for detailed steps.

REQUIRED TEXTS

Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis*, 2nd ed. Upper Saddle River, N.J.: Pearson Prentice Hall.

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.

Sidman, M. (2001). *Coercion and its fallout*. Boston, MA: Authors Cooperative.

REQUIRED INTERNET ACCESSIBLE TEXT MATERIALS

Go to the Behavior Analyst Certification Board's website (www.bacb.com) and download these two items: 1) Task List (4th Ed.) and 2) Guidelines for Responsible Conduct (2004 Ed.).

ARTICLES

Download articles by going to Journal Finder from the Library's website, clicking on the journal's title, then locating the article through the journal's contents. Articles published in *Journal of Applied Behavior Analysis* may be downloaded directly from that journal's website. Alternatively, you could: 1) search the article in PsychInfo and download it from that site, or 2) go to the Fenwick Library and copy the article.

Borgmeier, C., & Horner, R. H. (2006). An evaluation of the predictive validity of confidence ratings in identifying Functional Behavioral Assessment hypothesis statements. *Journal of Positive Behavior Interventions*, 8, 100-105.

Chapman, S.S., Ewing, C.B., & Mozzoni, M.P. (2005). Precision teaching and fluency training across cognitive, physical, and academic tasks in children with traumatic brain injury: A multiple baseline study. *Behavioral Interventions*, 20, 37-49.

Crone, D. A., & Horner, R. H. (2000). Contextual, conceptual, and empirical foundations of Functional Behavioral Assessment in schools. *Exceptionality*, 8(3), 161.

Ellis, J., & Magee, S.K. (1999). Determination of environmental correlates of disruptive classroom behavior: Integration of functional analysis into public school assessment process. *Education and Treatment of Children*, 22(3), 291-316).

- Ghezzi, P.M. (2007). Discrete trial teaching. *Psychology in the Schools, 44*(7), 667-679.
- Horner, R. H. (1994). Functional assessment: Contributions and future directions. *Journal of Applied Behavior Analysis, 27*, 401-404.
- Kerr, K.P., Smyth, P., & McDowell, C. (2003). Precision teaching in children with autism: Helping design effective programs. *Early Child Development and Care, 173*(4), 39-410.
- McIntosh, K., Borgmeier, C., Anderson, C., Horner, R. H., Rodriguez, B. J., & Tobin, T. J. (2008). Technical adequacy of the Functional Assessment Checklist: Teachers and staff (FACTS) FBA interview measure. *Journal of Positive Behavior Interventions, 10*, 33-45.
- Mueller, M.M., Piazza, C.C., Moore, J.W., Kelley, M.E., Bethke, S.A., Pruett, A.E., Oberdorff, A.J., & Layer, S.A. (2003). Training parents to implement pediatric feeding protocols. *Journal of Applied Behavior Analysis, 36*(4), 545-562.
- Paclawskyj, T.R., & Vollmer, T.R. (1995). Reinforcer assessment for children with developmental disabilities and visual impairments. *Journal of Applied Behavior Analysis, 28*(2), 219-224.
- Park, K.L. (2007). Facilitating effective team-based Functional Behavior Assessments in typical school settings. *Beyond Behavior, 17*, 21-31.
- Park, K.L. & Scott, T.M. (2009). Antecedent-based interventions for young children at-risk for Emotional and Behavioral Disorders. *Behavioral Disorders, 34*, 196-212.
- Schanding, G.T., Tingstrom, D.H., & Sterling-Turner, H.E. (2009). Evaluation of stimulus preference assessment methods with general education students. *Psychology in the Schools, 46*(2), 89-99.
- Schepis, M.M., Ownbey, J.B., Parsons, M.B., & Reid, D.H. (2000). Training support staff for teaching young children with disabilities in an inclusive preschool setting. *Journal of Positive Behavior Interventions, 2*(3), 170-178.
- Scott, T. M., Nelson, C. M., & Zabala, J. (2003). Functional behavior assessment training in public schools: Facilitating systemic change. *Journal of Positive Behavior Interventions, 5*(4), 216-225.
- Sugai, G., & Lewis, T. J. (1996). Preferred and promising practices for social skills instruction. *Focus on Exceptional Children, 29*(4), 1-16.
- Stichter, J., & Conroy, M. (2005). Using structural analysis in natural settings: A responsive functional assessment strategy. *Journal of Behavioral Education, 14*(1), 19-34.

As has been the practice in other courses in this sequence, we'll use Blackboard for communication, class management, and asynchronous discussion. You have been enrolled in Blackboard for this course, and your username and password are the same as they were when you last used Blackboard. The web address for GMU's Blackboard system is <http://blackboard.gmu.edu>.

COURSE REQUIREMENTS

Requirements, Performance Based Assessments, and Criteria for Evaluation

1. Final Examination. You will complete a 50 item, multiple choice test covering the entire course content during the last evening of class. Up to 25 points possible.
2. Blackboard Discussion Board Forums. For weeks indicated below, and in conjunction with readings from Sidman (2001), respond to assigned Discussion Board Forums. Read the instructor's question and your classmates' responses. Next, respond directly to the instructor's question or to content posted by your classmates. Posts must be made before the class session for which they're assigned. Posts made on time earn two points. Up to 15 points possible.
3. Written Assignments. 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 will lose 1 point per week.

Project 1: Indirect assessment measures. Identify the behavior(s) you are trying to reduce and operationalize it. Conduct a structured interview then a functional behavior assessment checklist. Analyze the antecedent and consequence events that seem to contribute to the occurrence and nonoccurrence of problem behaviors. Compare the results of the two indirect measures to generate a hypothesis of the function of the behavior.

Skill objectives	Point value	Points earned
Behavior is specific, observable, and measureable	2	
Indirect measures conducted	2	
Comprehensive analysis completed	3	
Summary hypothesis	3	
	10 points total	

Project 2: Descriptive Assessment Data Project. You will be provided with completed descriptive assessment data. Based on these, you will correctly describe patterns regarding occurrence and nonoccurrence, identify the types of contingencies most likely to be evoking and maintaining these behaviors, and hypothesize a summary statement. You will also recommend follow up actions.

Skill objectives	Point value	Points earned
Patterns of occurrence are associated with specific routines	2	
Setting events, antecedents,	4	

and consequences are identified		
Hypothesis summary statement is linked to assessment data	2	
Follow up action is provided	2	
	10 points total	

Project 3: Direct methods. Guided by the analysis of the indirect information (collected in project 1), conduct systematic direct observations. Confirm the occurrence of the problem behavior(s) and the antecedent and consequence events that reliably occur.

Skill objectives	Point value	Points earned
Plan to conduct direct methods is guided by indirect information	2	
Scatterplot conducted	2	
Behavioral recording of the problem behavior	2	
Antecedent , behavior, consequent (ABC)	2	
Correctly identifies the type of contingency maintaining the behavior	2	
	10 points total	

Project 4: Function Relevant Treatment and Instruction Project. You will be provided with the text of a completed functional assessment, which will include an operational definition of the targeted behavior, a completed FAI, ABC data collection records, and a scatterplot. You will need to complete the Competing Behavior Model as described by O’Neill et al. (1997) and develop a function-based intervention plan with specific teaching procedures. Components of the assessment and intervention project will include the following skills: operational definitions of the problem behavior, operational definitions of the replacement behavior, normative rate for the problem behavior, behavioral objective for the terminal state of the problem behavior, and step-by-step instructional procedures to teach the replacement behavior. The intervention plan will include strategies that will neutralize/eliminate the setting event, remove irrelevant triggers, teach a more efficient behavior that serves the same function as the problem behavior, and manipulate consequence events to remove ineffective reinforcers.

Skill objectives	Point value	Points earned
Problem and replacement behaviors are operationally defined	2	
Assessment procedures are described	2	
Hypothesis statement is supported by assessment data	4	
Setting event, antecedent, and consequence events associated with the problem behavior are identified	6	

Behavioral objective for the problem behavior is socially relevant and measureable	2	
Setting events are neutralized or eliminated	2	
Antecedent manipulations add relevant or remove irrelevant triggers	2	
Instructional plan includes process to teach replacement behavior to be more efficient	6	
Consequence manipulations add effective and remove ineffective reinforcers	2	
Intervention plan includes specific action plan with evaluation measures and timelines	2	
	30 points total	

Please note: This assignment is the Signature Assignment for this course. You will need to submit it on paper in class, and electronically to Taskstream. The paper submitted to Taskstream will be rated using the following rubric:

Does not meet expectations	Meets expectations	Exceeds expectations
Earned a score of less than 21 points on Function Relevant Treatment and Instruction Project	Earned a score of 22 – 29 points on Function Relevant Treatment and Instruction project	Earned a score of 30 points on Function Relevant Treatment and Instruction project

GRADING SCALE AND CRITERIA

The distribution of total possible points per assignment type and grading scale are:

Description	Point value
Discussion Board Forums	15 points
Project 1: Indirect assessment methods	10 points
Project 2: Descriptive assessment data	10 points
Project 3: Direct assessment methods	10 points
Project 4: Function relevant treatment and instruction (Taskstream submission)	30 points
Final Examination	25 points
	Total Points
	100 points
Grading Criteria	95 – 100% = A 90 – 94% = A- 85 – 89% = B 80 – 84% = B- 70 – 79% = C < 70% = F

COURSE SCHEDULE

Session	Read Before Class	Do Before Class / Submit at Beginning of Class	Do During Class
1			Review syllabus Functional approach to problem behavior, Positive and negative reinforcement *
2	Sidman, Ch 1 Crone & Horner (2000) Park (2007)	Respond to DB 1 & 2	Conceptual and empirical foundations Continuum of FBA procedures School-wide Positive Behavior Support*
3	Sidman, Ch 2 O'Neill chpt 1	Respond to DB 3 & 4	Behavior Objectives Lecture, discussion, and practice on how to write behavioral (operational) definitions, determining normative rates, and writing behavioral objectives
4	Sidman, Ch 3 and 4 Borgmeier & Horner (2006) McIntosh, Borgmeier, Anderson, Horner, Rodriguez, & Tobin (2008), Schanding et al. (2009)	Respond to DB 5 & 6	Conducting the FBA: Descriptive assessment procedures * Lecture, discussion, and practice on how to conduct descriptive assessment measures- functional assessment interviews (FAI), functional assessment checklist for teachers and staff (FACTS)
5	Sidman Ch. 5 O'Neill pgs 35-53	Respond to DB 7 & 8 Submit Project 1	Conducting the FBA: Direct assessment procedures * Lecture, discussion, and practice on direct observations, ABC data collection, and scatterplots
6	Sidman Ch. 6 & 7 Ellis & Magee (1999) Iwata et.al (2004) Stichter & Conroy (2005)	Respond to DB 9 & 10 Submit Project 2	Experimental manipulations and analysis Lecture, discussion, and practice on experimental functional analysis and structural analysis procedures
7	Sidman Ch. 8 Ghezzi (2007) Sugai & Lewis (1996)	Respond to DB 11 & 12 Submit Project 3	Developing the intervention * Reinforcer Assessments, Competing pathways, effective instruction
8	Sidman Ch. 9 & 10 Paclawskyj & Vollmer (1995) Chapman, Ewing, & Mozzoni (2005) Kerr, Smyth, & McDowell (2003)	Respond to DB 13 & 14	Developing the intervention Discrete trial teaching, incidental teaching, precision teaching
9	Sidman Ch. 12 Mueller, Piazza, Moore, Kelley, Bethke, Pruett, Oberdorff, & Layer, (2003) Schepis, Ownbey, Parsons, & Reid, D.H. (2000)	Respond to DB 15	Implementing the intervention * Treatment fidelity, skills assessment, training staff and parents to implement procedures Facilitating systematic change
10		Submit Project 4	Final Examination