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

EDSE 623 5S1 and PSYC 623 001
APPLIED BEHAVIOR ANALYSIS: ASSESSMENT AND INTERVENTION
Spring 2010
Thursdays, 4:30 – 7:10
Room 103, Kellar Annex

PROFESSOR

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COURSE DESCRIPTION

A   Prerequisite

Completion of EDSE 619 or consent of instructor.

B   Description

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

NATURE OF COURSE DELIVERY

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

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

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

REQUIRED TEXTS

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

REQUIRED INTERNET ACCESSIBLE TEXT MATERIALS

Download a **Task List (3rd Ed.)** and **Guidelines for Responsible Conduct (2004 Ed.)** from the Behavior Analyst Certification Board's website (www.bacb.com).

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.

Asmus, J.M., Vollmer, T.R., & Borrero, J.C. (2002). Functional behavioral assessment: A school-based model. *Education and Treatment of Children, 25* (1), 37-90.

Bosma, A., & Mulick, J.A. (1990). Brief report: Ecobehavioral assessment using transparent scatter plots. *Behavioral Residential Treatment, 5* (2), 167-140.

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.

Charlop-Christy, M.H., & Carpenter, M.H. (2000). Modified incidental teaching sessions: A procedure for parents to increase spontaneous speech in their children with autism. *Journal of Positive Behavior Interventions, 2* (20), 98-112.

Crosland, K.A., Dunlap, G., Sager, W., Neff, B., Wilcox, C., Blanco, A., & Giddings, T. (2008). The effects of staff training on the types of interactions observed at two group homes for foster care children. *Research on Social Work Practice, 18* (5), 410-420.

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 trials teaching. *Psychology in the Schools, 44* (7), 667-679.

Gresham, F.M., & Elliot, S.N. (1987). The relationship between adaptive behavior and social skills: Issues in definition and assessment. *The Journal of Special Education, 21* (1), 167-181).

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.

Hoch, T.A. (2007). Why is my kid doing this and what can I do? Facilitating family problem solving using scatterplots. In D. Linville and K.M. Hertlein (Eds.), *The therapist's notebook for family health care.* Binghamton, NY: Haworth Press, pp. 83-89.

Houlihan, D., Sloane, H.N., Jenson, W.R., & Levine, H.D. (1991). Treating preschool children with multiple behavior problems: Testing for the response covariation phenomenon. *Behavioral Residential Treatment, 6* (5), 321-340.

Kahng, S.W., Iwata, B.A., Fischer, S.M., Page, T.J., Treadwell, K.R.H., Williams, D.E., & Smith, R.G. (1998). Temporal distributions of problem behavior based on scatter plot analysis. *Journal of Applied Behavior Analysis, 31* (4), 593-604.

Kerr, K.P., Smyth, P., & McDowell, C. (2003). Precision teaching in children with autism: Helping design effective programmes. *Early Child Development and Care, 173* (4), 39-410.

Kuhn, S.A.C., Lerman, D.C., & Vorndran, C.M. (2003). Pyramidal training for families of children with problem behavior. *Journal of Applied Behavior Analysis, 36* (1), 77-88.

Mason, S.A., McGee, G.G., Farmer-Dougan, V., & Risley, T.R. (1989). A practical strategy for ongoing rienforcer assessment. *Journal of Applied Behavior Analysis, 22* (2), 171-179.

Matson, J.L., Mayville, S.B., & Laud, R.B. (2003). A system of assessment for adaptive behavior, social skills, behavioral function, medication side-effects, and psychiatric disorders. *Research in Developmental Disabilities, 24*, 75 – 81.

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.

O'Reilly, M.F. (1997). Functional analysis of episodic self-injury correlated with recurrent otitis media. *Journal of Applied Behavior Analysis, 30* (1), 165 – 167.

Paclawskyj, T.R., & Volllmer, T.R. (1995). Reinforcer assessment for children with developmental disabilities and visual impairments. *Journal of Applied Behavior Analysis, 28* (2), 219-224.

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.

Symons, F.J., Davis, M.L., & Thompson, T. (2000). Self-injurious behavior and sleep disturbance in adults with developmental disabilities. *Research in Developmental Disabilities, 21*, 115 – 123.

Tertinger, D.A., Green, B.F., & Lutzker, J.R. (1984). Home safety: Development and validation of one component of an ecobehavioral treatment program for abused and neglected children. *Journal of Applied Behavior Analysis, 17* (2), 159-174.

Wilder, D.A., Schadler, J., Higbee, T.S., Haymes, L.K., Bajagic, V., & Register, M. (2008). Identification of olfactory stimulus reinforcers ion individuals with autism: A preliminary inestigation. *Behavioral Interventions, 23*, 97-103.

BLACKBOARD

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

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; late posts earn one point. Up to **56 points**.

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 up to 90% of the possible points.

Project 1: Behavioral Definition, Normative Rate, and Behavioral Objective Project. You will be given links to three behavioral scenarios, and you'll be told which behavior (and whose) to consider. For each, you'll write either a topographical or a functional behavioral definition for the behavior. Next, you'll conduct a normative rate study for each of the behaviors. Finally, you'll write a behavioral objective for each of the behaviors using the format provided in class. **Up to 10 points (1 for each correctly written definition; 1 for each correctly derived normative rate; 1 for each correctly written objective; and 1 for correct spelling, grammar, punctuation, and timely submission).**

Project 2: Scatterplot and ABC Data Project. You will be provided with four stimulus control scatterplots and four ABC Data Collection records. Based on these, you will correctly describe patterns regarding occurrence and nonoccurrence of the targeted behaviors with regard to time and other events; and identify the types of contingencies most likely evoking and maintaining the behaviors. **Up to 20 points (1 point for correctly identifying patterns of occurrence and 1 for patterns of nonoccurrence for each scatterplot; 1 for listing additional questions to ask for each scatterplot; 1 for naming types of contingencies likely maintaining the target behavior using the ABC data records, and 1 for each correctly answered question at the end of the assignment)**

Project 3: FAI Project. You will be provided with a completed FAI. You will correctly identify apparently maintaining MOs, immediate antecedents, and consequences, and name the type(s) of contingencies that appear to be maintaining the behavior. Next, you will state three types of additional information that would be needed before further action could be taken. **Up to 10 points (up to 2 points for each of parts A – E for this assignment).**

Project 4: Analogue Functional Analysis Outcome Interpretation Project. You will be provided with five graphs depicting outcomes of analogue functional analyses. For each, you will follow the procedure described by Hagopian et al. (1997), and will determine the type(s) of contingencies that have been demonstrated to be maintaining the behaviors. **Up to 10 points (one point per analysis for correctly**

following the guidelines put forth by Hagopian et al. (1997), and one point for correctly identifying maintaining contingencies).

Project 5: 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: 1) Complete the Competing Behavior Model as described by O'Neill et al. (1997), and circle the competing behavior (e.g., the replacement behavior or alternative behavior) you will teach; 2) determine the normative rate for the competing behavior you've selected; 3) determine the normative rate for the problem behavior; 4) write a behavioral objective for the terminal state of the competing behavior; 5) write a behavioral objective for the terminal state of the problem behavior; 6) name the contingencies currently maintaining the problem behavior; 7) compose step-by-step instructional procedures to teach or accelerate the competing behavior you've selected, using one of the teaching methodologies covered in this course; 8) compose step-by-step reactive procedures to enact should the problem behavior happen; 9) and compose step-by-step practical procedures to implement should the problem behavior occur under unfavorable conditions. **Up to 30 points (3 points for each of parts 1 – 9, and 1 point each for correct spelling, punctuation, and grammar).** *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.* **You will receive your score which will count toward your final course grade on the paper your submit in class, and, should you submit the assignment by the beginning of the twelfth session, it will be given back to you, scored, by the fourteenth session, so you can determine whether or not you wish to revise and resubmit your project. Resubmitted projects must be given to your instructor, on paper, no later than 4:30 on 5.6.10. Should you opt not to submit your assignment early, it will be due on 5.6.10. In addition to your score (which will count toward your final grade), the electronic version of this paper you submit on 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

Final Examination. You will complete a 50 item, multiple choice test covering the entire course content during the last evening of class.

Grading Scale

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

Description	Possible Points	Total Possible Points
Discussion Board Forums	56 points	56 points
Project 1	20 points	76 points
Project 2	25 points	101 points
Project 3	10 points	111 points
Project 4	10 points	121 points
Project 5	30 points	151 points
Final Examination	50 points	201 points

A = 182 - 201 points; B = 162 - 101 points; C = 142 - 161 points; F < 142 points

COURSE SCHEDULE

Class Date	Read Before Class	Do Before Class / Submit at Beginning of Class	Do During Class
1.21.10 1st Ssn			Review syllabus; Introduction to functional analysis and functional assessment
1.28.10 2nd Ssn	Sidman, Ch 1	Respond to DBI 1 and 2	Lecture, discussion, and practice on how to write, writing behavioral (operational) definitions, determining normative rates, range of appropriate targets, and writing behavioral objectives
2.4.10 3rd Ssn	Sidman Ch. 2, Hoch et al. (1996), Mason et al. (1989), Paclawskyj & Vollmer 1995), Schanding et al. (2009), and Wilder et al. (2008)	Respond to DBI 3 and 4; Submit Project 1	Lecture, discussion, and practice on stimulus preference and reinforcer assessment, and writing procedures
2.11.10 4th Ssn	Sidman Ch. 3 and 4, Bosma & Mulick (1990), Hoch (2007), Houlihan et al (1991), and Kahng et al. (1998)	Respond to DBI 5 and 6	Lecture, discussion and practice on observation, ABC Data collection, scatterplots, and writing procedures
2.18.10 5th Ssn	Sidman Ch. 5	Respond to DBI 7 and 8; Submit Project 2	Lecture, discussion, and practice on functional assessment interviews and checklists, and on writing procedures
2.25.10 6th Ssn	Sidman Ch. 6 and 7, O'Neill et al. (1997), pp. 1 – 98.	Respond to DBI 9 and 10	Lecture, discussion, and practice on the Functional Assessment Interview package, and on writing procedures
3.4.10 7h Ssn	Sidman Ch. 8, Hagopian et al. (1997), Hanley et al. (2003), Iwata et al. (2004)	Respond to DBI 11 and 12; Submit Project 3	Lecture, discussion, and practice on experimental functional analysis, and on writing procedures
3.18.10 8th Ssn	Sidman Ch. 9 and 10, Asmus et al. (2002), Gresham & Elliot (1987)	Respond to DBI 13 and 14; Submit Project 4	Lecture, discussion, and practice on adaptive behavior assessment and on writing procedures
3.25.10 9th Ssn	Sidman Ch. 11, Matson et al. (2003), O'Reilly et al. (1997), Symons et al. (2000)	Respond to DBI 15 and 16	Lecture, discussion, and practice on symptom assessment and medical issues as important variables, and on writing procedures
4.1.10 10th Ssn	Sidman Ch 12, Crosland et al. (2008), Kuhn et al. (2003), Mueller et al. (2003), Schepis et al. (2000)	Respond to DBI 17 and 18	Lecture, discussion, and practice on parent / staff skills assessment and parent / staff training, and on writing procedures
4.8.10 11th Ssn	Sidman Ch. 13, Ellis & Magee (1999), Tertinger et al. (1984)	Respond to DBI 19 and 20	Lecture, discussion, and practice on environmental assessment, and on writing procedures
4.15.10 12th Ssn	Sidman Ch. 14 and 15, Chapman et al. (2005), Charlop-Kristy & Carpenter (2000), Ghezzi (2007), Kerry et al. (2003)	Respond to DBI 21 and 22; *Submit Project 5 if you'd like opportunity to revise*	Lecture, discussion, and practice on discrete trial instruction, teaching interactions, incidental teaching, and precision teaching
4.22.10 13th Ssn	Sidman Ch. 16	Respond to DBI 23 and 24	Peer review of behavior intervention program presentations

Class Date	Read Before Class	Do Before Class / Submit at Beginning of Class	Do During Class
4.29.10 14th Ssn	Sidman Ch. 17	Respond to DBI 25 and 26	Peer review of behavior intervention program presentations
5.6.09 15thSsn		Submit Project 5	Final Examination

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. Should you need to be absent, please contact a classmate regarding notes and other activities that took place in your absence.

COMPUTERS, CELL PHONES, AND BLACKBERRIES

Please turn all of these off, and keep them put away during class time.

CONTACTING YOUR INSTRUCTOR

You can contact Dr. Hoch by phone at 703.497.1562, or by e-mail at thoch@gmu.edu.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS

The Graduate School of Education (GSE) expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. See http://gse.gmu.edu for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#TOC_H12 for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See http://mail.gmu.edu and click on Responsible Use of Computing at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See www.gmu.edu/student/drc or call 703.993.2474 to access the DRC.