

# PSY 724: Psychological Interventions I

## Fall 2006

John Begeny, Ph.D.  
762C Poe Hall  
Phone: 513-7950  
Email: john\_begeny@ncsu.edu  
Office hours: by appointment

Class meeting time:  
Tues., 4:10 PM – 6:55 PM  
Place: 634 Poe Hall  
Credits: 3

### I. Course Description

The purpose of this course is to introduce you to basic concepts and principles of behavior analysis as they relate to humans and as they have been derived from experimental operant and respondent research. You will learn strategies and tactics for investigating causes of human behavior from within a behavior analysis paradigm. You will also become knowledgeable about research findings and the application of basic principles of behavior to clinically significant and socially relevant problems, including problems related to students and teachers in schools.

### II. General Learning Objectives

- A. Students will learn how to define, record, display, and interpret behavioral observation data.
- B. Students will learn basic operant and respondent principles of behavior and how they are relevant to the study of human behavior.
- C. Students will learn how basic principles of behavior can be applied to solving problems, including how to increase desirable behaviors, how to decrease undesirable behaviors, and how to establish new behaviors.
- D. Students will learn how to conduct functional assessments for behavioral excesses and/or behavioral deficits.
- E. Students will be familiar with the application of single-case experimental designs and will evaluate research that utilizes such designs.

### III. NASP Domains of School Psychology Training and Practice addressed in this course

- 2.1 **Data-based decision-making and accountability:** This course emphasizes the integration of assessment data (for purposes of identification of strengths and needs, continuous progress monitoring, functional assessment, and outcome evaluation) into decision making in the intervention design process.
- 2.2 **Consultation and collaboration:** This course teaches students about a variety of intervention methods and assessment and decision-making processes that serve as the content foundation for problem-solving consultation.
- 2.3 **Effective instruction and development of cognitive/academic skills:** With an emphasis on designing interventions, this course will increase students'

knowledge and understanding of how to select appropriate interventions for a wide variety of cognitive, behavioral, and academic skill problems.

- 2.4 Socialization and Development of Life Skills:** Students will learn sound principles of assessment and behavior change and how those principles can be applied in social and developmental contexts. This course is the foundation for your understanding of behavior management techniques.
- 2.5 Student diversity in development and learning:** This course emphasizes the knowledge, sensitivity, and skills necessary to develop and implement strategies that meet the diverse needs of children in schools so that students will be prepared to design effective interventions for a variety of populations in future practice.
- 2.6 School and systems organization, policy development, and climate:** This course promotes knowledge of and understanding of the organization of schools through an applied assessment and intervention project in the local schools.
- 2.7 Prevention, crisis intervention, and mental health:** This course and its content emphasize intervention design as a service delivery vehicle for intervening with problems in the natural setting so as to prevent more severe problems for students, teachers, parents, and schools and to empower our constituents (generally consultees) to manage problems more effectively in the future.
- 2.8 Home/school/community collaboration:** Effective behavior management and functional assessment are presented as methods that are well suited for addressing the needs of families (e.g., through effective behavioral consultation) and involving them in the education of their children (e.g., through developing parent tutoring plans based on sound instructional principles).
- 2.9 Research and program evaluation:** This course teaches students how to systematically and quantitatively analyze individual case data for evaluating the effectiveness of intervention-based services across cases.
- 2.10 School psychology practice and development:** This course teaches students intervention and assessment models and methods, as well as the ethical, professional, and legal standards to which students will be held accountable as they deliver intervention services both during and after their training.
- 2.11 Information Technology:** Students will gain knowledge of information sources and technology relevant to their work through electronic literature searches, writing a professional report and a research proposal, participating in electronic media (i.e., *Blackboard*), and learning how to create progress monitoring graphs in Microsoft Excel®.

#### IV. Assignments and Grading

Exams (40% of your grade): There will be three exams throughout the semester. Two of the exams will each be worth 16% of your grade, and one exam will be worth 8% of your grade. Your lowest exam score will be given the 8% value.

Exams questions may include the following formats: multiple-choice, true/false, matching, fill in the blank, short answer, listing items or concepts, sequencing processes/procedures correctly, and/or oral responses. You will not be able to use your notes or text during the exams.

Policy on missed exams – Make arrangements in advance if you must miss a test because of an official university activity, out-of-town job interview, or similar event. If you miss a test because of a last-minute emergency, contact me immediately by phone or email. If you cannot take the test on the day it is scheduled, your make-up test may differ from the original exam.

Behavior Change Project (20% of your grade): You will be responsible for one behavior change project. This project will give you direct experience with measurement, single-case experimental designs, and procedures for changing behavior. In addition, it will serve as an introduction to (or additional experience with) working with children and school personnel in elementary schools, and possibly provide opportunities to work with parents.

Working in teams of three to four, you will: (a) conduct classroom observations of a student referred for behavior problems, (b) meet with the student's classroom teacher to gather information about the student's behavior, (c) complete a functional assessment (or functional analysis, when appropriate), (d) develop a behavioral intervention based on the results of the functional assessment (ideally, the intervention will be based on principles of reinforcement), (e) conduct a stimulus preference assessment, (f) implement the designed intervention according to a single-case experimental design that is appropriate for evaluating the effectiveness of the intervention, (g) monitor the student's behavior through classroom observations after implementing the intervention, and (h) modify the intervention (as needed) based upon your observational data. Beyond the original teacher interview, you will also be expected to meet with the teacher periodically throughout the project to gather additional information as needed and to inform him/her of your observations and progress. You will also meet with the teacher at the conclusion of the project to discuss all relevant issues at that time (e.g., planning for continuation or termination of the intervention). **Observations (i.e., data collection) for the behavior change project must begin by 9/30 and you must collect at least 18 data points before completing the project. I also recommend that you meet with your target student's teacher by 9/28.**

Each member of your group will also be responsible for plotting your data on a computer generated graph and turning in a brief report of the results by 12/12. Your report of the behavior change project should describe your intervention program and the results of the project according to the guidelines for reports found in Appendix A (see the end of the syllabus). Be sure your report adheres to APA style (5th ed.) conventions and that it is double-spaced. The report will constitute 85% of your grade for the behavior change project. The other 15% of

the grade will be based upon a 15-minute presentation of your project to the class. More details regarding this project will be forthcoming.

Class Presentation on a Topic Related to the Course (20% of your grade): In groups of three to four students, you will select from one of the following topics and present the information you learn about this topic to the class. Presentations should last 60-80 minutes and should (a) summarize the topic (e.g., describe terminology, describe its relevancy to the course), (b) summarize at least 5 to 6 research studies that investigate (or are relevant to) the topic, and (c) describe how the class would benefit from knowing about the topic in their professional and/or personal lives. During the presentation, case examples, class activities, visual aids, etc. are encouraged.

Some of the topics you may choose from include the following: Preference Assessments and Selecting Potential Reinforcers; Non-Contingent Reinforcement; Behavioral Momentum; ABA with Special Populations; Awareness Training/Habit Reversal; and Promoting Treatment Integrity. With permission, you may present on another topic that relates to applying principles of behavior.

Manuscript Review of a Study Related to the Course (10% of your grade): Each student will submit an editorial review of a manuscript previously submitted for publication. The manuscript will be provided for you and it will a) cover a topic related to applied behavior analysis, and b) utilize a single-case experimental design. Additional details about this assignment will be forthcoming.

Participation and In-class Quizzes (10% of your grade): I will evaluate class participation for each student. Your performance will be evaluated based on your class attendance, participation in class activities and discussion, and by how well you perform on occasional in-class quizzes. In-class quizzes will be given (typically in a multiple choice format) as a means of helping you to stay on track with the course material. In addition, the quizzes help me to assign participation points in a more objective manner.

Extra Credit Opportunities (up to an additional 4% points toward your grade):

Study Questions (up to 2%): Select two featured research articles published in the *Journal of Applied Behavior Analysis* and answer the study questions that appear at the end. You can find articles on-line at the following URL:

<http://seab.envmed.rochester.edu/jaba/index.html>. Only answers that are typed and written in complete sentences will be accepted, and you must attach a copy of the research article when submitting your answers. To receive full credit for this extra credit opportunity, be sure to convince me that you understand the material with thorough and complete answers. **Brief reports and articles assigned as supplemental readings in the course are not allowed for this extra credit opportunity.**

*Paper or Poster Submission to the NASP annual conference (up to 2 %):* Based on your behavior change project, **each** member of your group can earn 2% extra credit by completing the submission guidelines for a paper or poster presentation at the NASP annual conference. Actual submission of the presentation is not required to receive full credit for this opportunity, but this is encouraged as part of your professional development. Of course, actual submission of the presentation would take part as a collaborative effort among all members of your group.

*Note: If you choose only one of the two extra credit options, I encourage you to choose the NASP Paper/Poster Submission, as this option would likely be perceived as relatively more beneficial to your overall professional development.*

To assist you in completing assignments for this course, I have made a list of journals devoted to empirical and review articles in the areas of applied behavior analysis and behavior therapy. It is not required that you utilize all or any of these journals, but it is likely they will be relevant to completing some of the course assignments. The journals are as follows.

*Journal of Applied Behavior Analysis*  
*Journal of Behavioral Education*  
*Behavioral Interventions*  
*Education and Treatment of Children*  
*Behavior Therapy*  
*Behavior Modification*  
*The Behavior Analyst*  
*Journal of Behavior Therapy and Experimental Psychiatry*  
*Research in Developmental Disabilities*  
*Analysis and Intervention in Developmental Disabilities*

#### **Final Grade Scale**

<u>Final Grade</u>	<u>Percent of Points</u>
A+	97-100
A	93-96
A-	90-92
B+	87-89
B	83-86
B-	80-82
Etc.	

#### **V. Readings**

There are two required texts and one recommended text for this course. The texts are as follows:

**REQUIRED**

- Alberto, P. A. & Troutman, A. C. (2006). *Applied behavior analysis for teachers, 7<sup>th</sup> Edition*. Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.
- Richards, S. B., Taylor, R. L., Ramasamy, R. & Richards, R. Y. (1999). *Single subject research: Applications in educational and clinical settings*. Belmont, CA: Wadsworth/Thomson Learning.

*Note: Additional required readings (e.g., book chapters, journal articles) will be assigned throughout the semester. These readings will be made available to you either by email or through a hard copy of the reading that you will have the opportunity to copy.*

**OPTIONAL**

- Watson, T. S. & Steege, M. W. (2003). *Conducting school-based functional behavioral assessments: A practitioner's guide*. New York, NY: Guilford Press.

**V. Miscellaneous Policies**

**Instructor availability:** Students are **highly** encouraged to discuss any matter related to the course with me. Students are also encouraged to use phone messages and email for **brief** contacts that are not of a substantive nature. For example, both of these means of communication are appropriate for notifying me that you will be unable to attend class on a specific date, to set up an appointment, etc. They are **not** appropriate for communicating concerns you have about your performance, concerns about the class, justifying why an assignment is late, etc. Exercise discretion and good judgment in choosing an appropriate means of communicating with me by considering the nature of the contact.

**Attendance:** You are expected to attend all classes and show up to class **no later than 4:10**. Absences can only be excused prior to a class. No unexcused absences are permitted. An unexcused absence will result in a drop of one full letter grade. Two unexcused absences will result in a course grade of F.

**Late assignments:** Assignments submitted after the published due date are subject to a 10% late penalty for each weekday they are late.

**Severe weather policy:** In the event that NCSU classes are canceled because of severe weather, activities for the canceled class will be covered in the next class period. If a class period is cancelled on a day that an assignment is due, you must submit (if applicable) an electronic version or hard copy of that assignment by 4:10 of the cancelled class period. If an assignment is due the week following a cancelled class period, that assignment will still be due during that class period.

**Incomplete policy:** Incompletes (grades of "I") will be given only in the case of unavoidable medical emergencies, military service, hardship, or death in the

immediate family. If you find yourself falling behind or not scoring well on assignments, you should seek assistance from the instructor or drop the course.

Academic Dishonesty:

University regulations require me to state the obvious: I expect you to be honest regarding your work in this course. Putting your name on a paper means that you neither gave nor received unauthorized aid, and cheating on exams in any way is obviously prohibited. For a complete statement of the university's policies on academic integrity, see this web site:

[http://www2.ncsu.edu/prr/student\\_services/student\\_conduct/POL445.00.1.htm](http://www2.ncsu.edu/prr/student_services/student_conduct/POL445.00.1.htm)

Special Needs:

This class abides by the policies set forth by North Carolina State University with respect to students with special needs. If you are a student in need of assistance due to a physical or learning disability, please contact me as soon as possible so that the appropriate accommodations can be made. All documentation and requests for special assistance are considered confidential. The university's policy on disabilities is available at: [http://www.ncsu.edu/equal\\_op/dss/](http://www.ncsu.edu/equal_op/dss/)

**Class Meeting Dates, Weekly Topics, Assigned Readings, and Due Dates**

<u>Date</u>	<u>Topics</u>	<u>Assigned Readings &amp; Due Dates</u>
8/29	Course Overview; Applied Behavior Analysis: History, Fundamentals, and Applications	
9/5	Respondent Conditioning; Overview of Operant Conditioning	A & T (Ch. 1) <i>Reading: Tazaki et al. (2006)</i>
9/12	Arranging Consequences that Increase Behavior; Arranging Consequences that Decrease Behavior	A & T (Chs. 7 & 8) <i>Reading: Cameron et al. (2001)</i>
9/19	Observing and Recording Behavior; Single Case Designs—an introduction; The A-B Design	A & T (Chs. 3 & 4) Richards (Chs. 1, 4, 5, & 6)
9/26	Functional Assessment and Functional Analysis; Preparing Behavioral Objectives	A & T (Chs. 2 & 6) <i>Reading: TBA</i>
<b>Observations for behavior change project must begin by 9/30</b>		
10/3	Differential Reinforcement and Shaping New Behavior; Multiple Baseline Designs	A & T (Ch. 9) Richards (Chs. 7 & 8)
10/10	<b>Exam 1</b>	

<u>Date</u>	<i>Topics</i>	<u>Assigned Readings &amp; Due Dates</u>
10/17	Stimulus Control: Discrimination and Generalization; Prompting and Transfer of Stimulus Control; Alternating Treatments Designs	<i>Readings: Miltenberger (Chs. 7 &amp; 10)</i> Richards (Chs. 9 & 10)
10/24	Promoting Generalization; Changing Criterion Designs	A & T (Ch. 10) Richards (Chs. 11 & 12)
10/31	Teaching Students to Manage Their Own Behavior; Analyzing Single Subject Data	A & T (Ch. 11) Richards (Ch. 13)
11/7	Other Behavior Change Procedures (including Cognitively Based Treatments)	<b>Manuscript Review Due</b> <i>Readings: Kazdin Ch. 12 &amp; TBA</i>
11/14	<b>Exam 2</b>	
11/21	ABA in Education: Selected Topics	<i>Readings: TBA</i>
11/28	<b>Student Presentations of Selected Topics</b>	
12/5	Responsible Uses of ABA	A & T (Chs. 12 & 13) <i>Reading: Kennedy (2002)</i>
12/12	<b>Exam 3 (1:00 – 4:00)</b> <b>Present Results from Behavior Change Project</b>	<b>Behavior Change Project Paper Due by 12/10</b>



## Appendix A

**Guidelines for the Preparation of Reports (adapted from the *Journal of Applied Behavior Analysis*)**

You must convey the rationale, procedures, and results of your work in a selective yet clear manner, retaining only the most important details and data. The body of the report (Abstract, Introduction, Method, Results, and Discussion), Figure, and Reference section will be at least 12 typed pages (12-point Times New Roman font with 1-inch margins).

a. The Abstract (approximately  $\frac{1}{2}$  page of text) gives a one sentence statement about purpose and hypotheses of the project, several sentences about methods that were used, a sentence or two regarding findings, and a sentence about what will be discussed in the Discussion section.

b. The Introduction (approximately  $2\frac{1}{2}$  pages of text) should identify the issues to be addressed by the research, state the purpose of the case study, and cite key references. In the Introduction, you should open by catching the reader's interest, explain the concepts and variables that are most important to your case study (while referencing key articles or books), describe the purpose of your project, and give a brief overview of what was done and why it is an important application or extension of principles of behavior.

c. The Method (approximately 3 pages of text) is the most critical part of the manuscript. Describe the participant (relevant characteristics like age, gender, ethnicity, reason for referral) and setting, dependent variable(s) (what was measured), independent variable(s) (what was manipulated), procedures used to administer the independent variable, the experimental design that was used, and treatment integrity and interobserver agreement procedures and results.

d. The Results and Discussion (approximately 4 pages of text) can be combined. This section should summarize the findings and importance of the research. Be sure to carefully and accurately describe patterns of data in the Figure, especially changes across phases. It is critical that you describe the variables you believe to be responsible for the data patterns (for good or for bad). For example, were the independent variables responsible for change? Did other variables affect the results? How do you know? Also, provide an acknowledgment of the limitations of your case study, and at least one suggested area for future investigation.

e. A single figure (computer generated, single page) displaying results of repeated measurements over the course of the semester should be used for displaying the data. The figure should conform to the experimental design used according to the way the design is displayed in Miltenberger.

f. The References (approximately 1 page) should be limited to no more than six key articles, reported in APA (5<sup>th</sup> edition style).