BEHV 3440
DATA COLLECTION & ANALYSIS
Spring 2016

Teaching Fellow:
Meranda O'Gorman, B.A.

Office Hours:
Tuesday/Thursday 2:30-4:30pm
And by appointment
Room 361E Chilton Hall
meranda.ogorman@gmail.com

Faculty Supervisor:
Shahla Ala'i-Rosales, Ph.D., BCBA-D

Course Meeting Information:
Tuesday & Thursday 12:30pm – 2:20pm
Sage 330

Course Tutoring:
Owen Adams
Mon/Wed 10:00am-1:00pm
Fri 10:00-11:00am and 1:00-3:00pm
Room 361E Chilton Hall
Owen.j.adams@gmail.com

ADA Statement
The Department of Behavior Analysis, in cooperation with The Office of Disability Accommodation, complies with the Americans with Disabilities Act. Please present your written request to me before the 3rd class meeting.

Succeed at UNT
succeed.unt.edu

Show Up
Active involvement allows you to make the most of your experience. Participate, ask questions, and engage in BEHV 3440 learning opportunities.

Find Support
Create study groups with your classmates and visit the course tutor for on-going support.

Take Control
If you feel as if you need greater support after the first observation project, sign up with the course tutor to better structure and analyze your behavior so you can succeed.

Be Prepared
Do the readings before class and study before each test.

Get Involved
Explore areas within behavior analysis by attending BAASA meetings, Friday BARC presentations, and volunteering in DBA labs and service settings.

Be Persistent
"That which we persist in doing becomes easier, not that the task itself has become easier, but that our ability to perform it has improved.
Ralph Waldo Emerson (1803 - 1882)"

BEHV 3440 Course Objectives

In this course, you will learn how to design and implement complete observational systems. You will be able to define behavior, learn about the observer's behavior during data collection, and use five methods of direct observation to quantify the occurrence of behavior. You will be able to describe the benefits and limitations of each of these data collection methods, and choose an appropriate observational method to record the occurrence of particular behaviors. You will also learn how to read and display data in tables and graphs. The course also includes an introduction to the logic of single subject designs. Students should enroll in this class only after they have taken BEHV 2300, 2700, or 3150.

1. Write a reliable operational definition of behavior.

2. Record behavior with seven different recording methods.

3. Calculate the reliability of data.

4. Put data into table and graph format.

5. Read and describe linear graphs and cumulative records.

6. Design entire observational systems.

9. Enhance skills related to effective professional conduct (self-directed learning, civil and considerate behavior, thoughtful discussion, cooperative project work, polished work products).

This is a four credit hour lab class.

1) **LAB PARTNERS:** You are required to complete all observation assignments with a lab partner. You must use your UNT email address to contact one another.
2) **LAB MANUAL:** You are required to purchase a lab manual from CopyPro (1300 W. Hickory, Denton, TX 76201). All in-class activities, lab notes, and projects descriptions are in this manual. The manual will be collected at the end of the semester for grade recording.

Student Activities, Requirements, and Point Allocations

Activity	Requirements	Points
Lab Manual	During class time students will engage in a variety of activities designed to extend concepts and practice technical skills related to observation and measurement of behavior. Students will define behaviors, record behavior with different observational systems, calculate the reliability of their observations, make and read scatterplots of behavior, cumulative records, and linear graphs. *If there is an excused absence, a copy of the documentation and a verification number should be attached to the missed activity/observation.*	25 pts
System Project with lab partner	Students will design and carry out one complete observational system (observation of multiple behaviors). They will write a report including definitions of at least three behaviors, data sheets, observation and reliability procedures, a table of the data, a graph of the data, and a description of the data. Each student will write up their own report, but data development and collection should be completed with partners.	25
Synthesis Paper	Students will complete a synthesis paper that summarizes course content in the context of activities completed during the semester. Grading is based on accuracy, details, and reflection.	20
Final Exam	Accurately record using seven methods, write a complete behavioral definition, identify basic experimental designs, and describe data paths across treatment conditions.	30
TOTAL POINTS		**100**

Grading Scale
A= 100-90, B=89-80, C=79-70, D=69-60, F= 59 or below

Student Perceptions of Teaching (SPOT)

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The short SPOT survey will be made available **April 18th – May 1st** to provide you with an opportunity to evaluate how this course is taught. For the spring 2016 semester you will receive an email on **April 18th (12:01 a.m.)** from "UNT SPOT Course Evaluations via *IASystem* Notification" (no-reply@iasystem.org) with the survey link. Please look for the email in your UNT email inbox.

Course Schedule Spring 2016

Date	Topics	Readings	Assignments Due
Jan. 19	**Course Overview and**	Syllabus	
Jan. 21	**Basic Issues in Measurement**	Reading 1: Basic issues in measurement	
Jan. 26	**Behavior as a Scientific Datum**	Reading 2: A system of behavior	
Jan. 28	**Descriptive vs. Interpretative of Behavior**	Reading 3: Selection and definition of behavior	
	Synthesis Paper Instructions		
Feb. 2	**Creating Behavioral Definitions**	Reading 4.1: Target behavior Reading 4.2: Behavioral definitions in applied behavior analysis: Explicit or Implicit	
Feb. 4	**Writing a Behavioral Definition**	Reading 5: Observation methods in applied behavior analysis	
Feb. 9	**Increasing Accuracy of Observations**	Reading 6: Improving Observation	
Feb. 11	**Increasing Accuracy of Observations**		**Submit Part 1 Synthesis Paper to Blackboard by 12:30pm**
Feb. 16	**Dimensional Properties of Behavior**	Reading 7: Dimensional quantities and units of measurement	
Feb. 18	**Dimensional Properties of Behavior**		
Feb. 23	**Frequency Introduction**	Reading 8.1: Frequency of a performance as a fundamental datum Reading 8.2: Frequency measures	
Feb. 25	**Frequency in the Field** (Observation Period)		**Submit Lab Manual to my office by 4:30pm**
Mar. 1	**Duration Introduction**	Reading 9: Duration Measures	
Mar. 3	**Duration in the Field** (Observation Period)		
Mar. 8	**Opportunity-Based Recording Introduction**	Reading 10: The effects of behavioral training on staff implementation of discrete- trial teaching.	

Mar. 10	**Opportunity-Based in the Field** **(Observation Period)**		**Submit Part 2 Synthesis Paper to Blackboard by 12:30pm**
Mar. 14-20	Spring Break		
Mar. 22	**Interval Recording Introduction**	Reading 11: Continuous interval methods	
Mar. 24	**Interval Recording in the Field** **(Observation Period)**		**Submit Lab Manual to my office by 4:30pm**
Mar. 29	**Systems Project Instructions**		
Mar. 31	**Sampling Recording Introduction**	Reading 12: Planned activity check: Materials for training observers	
Apr. 5	**Momentary-Time Sampling in the Field** **(Observation Period)**		
Apr. 7	**PLA-Check in the Field** **(Observation Period)**		
Apr. 12	**Quantified-Self**	Reading 13.1: Counting every moment Reading 13.2 The perfected self	
Apr. 14	**Scatterplot**	Reading 14: A scatter plot for identifying stimulus control of problem behavior	**Submit Part 3 Synthesis Paper to Blackboard by 12:30pm**
Apr. 19	**Cumulative Record**	Reading 15: The Cumulative Record	
Apr. 21	**Graphing**	Reading 16.1. Graphing Reading 16.2: Graphs Reading 16.3: … and rackets Reading 16.4 In the beginning, there was the response	
Apr. 26	**Standard Celeration Chart**	Reading 17: Precision Teaching: The Standard Celeration Chart	
Apr. 28	**Experimental Design and Visual Analysis**	Reading 18: Single Subject Design	
May 3	**Systems Project Presentations**		**Submit Systems Project to Blackboard by 12:30pm**

May 5	**Systems Project Presentations**		**Submit Synthesis Paper to Blackboard by 12:30pm**
Thurs. May 12	**Final Exam 10:30am-12:30pm**		**Manuals Due**

BEHV 3440 READINGS

Basic Issues in measurement. In Simkins, L. D. The basis of psychology as a behavioral science (pp. 126-137). Englewood Cliffs, NJ: Prentice-Hall.

A system of behavior. In Skinner, B. F. (1938). The behavior of organisms: An experimental analysis (pp. 3-8). Englewood Cliffs, NJ: Prentice-Hall.

Selection and definition of behavior. In Ayllon, T., & Azrin, N. (1968). The token economy: A motivational system for therapy and rehabilitation (pp. 28-39). New York: Appleton-Century-Crofts.

Target behavior. In Ayllon, T., & Azrin, N. (1968). The token economy: A motivational system for therapy and rehabilitation (pp. 45-49). New York: Appleton-Century-Crofts.

Hawkins, R., Dobes, R. (1977). **Behavioral definitions in applied behavior analysis: Explicit or implicit.** In B.C. Etzel, J.M. LeBlanc, and D.M. Baer (Eds.), New developments in behavioral research: Theory, method, and application (165-171). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Behavior definitions. In Ruggles, T., & Leblanc, J. (1979). Observation methods in applied behavior analysis (pp. 33-37). Kansas Research Institute for early childhood Education of the Handicapped (ECI Document no. 123). University of Kansas: Lawrence Kansas.

Dimensional quantities and units of measurement. In Jonhston, J. & Pennypacker, H. (1993). Strategies and tactics of behavioral research (pp. 91-108). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Frequency of a performance as a fundamental datum. In Ferster, C., Culbertson, S., & Perrott-Boren, M. (1975). Behavior Principles (pp. 321-327). Englewood Cliffs, NJ: Prentice-Hall, Inc.

Frequency measures. In Ruggles, T., & Leblanc, J. (1979). Observation methods in applied behavior analysis (pp. 7-17). Kansas Research Institute for early childhood Education of the Handicapped (ECI Document no. 123). University of Kansas: Lawrence Kansas.

Duration measures. In Ruggles, T., & Leblanc, J. (1979). Observation methods in applied behavior analysis (pp. 18-23). Kansas Research Institute for early childhood Education of the Handicapped (ECI Document no. 123). University of Kansas: Lawrence Kansas.

Continuous interval methods. In Ruggles, T., & Leblanc, J. (1979). Observation methods in applied behavior analysis (pp. 23-33). Kansas Research Institute for early childhood Education of the Handicapped (ECI Document no. 123). University of Kansas: Lawrence Kansas.

Sarokoff, R.A., & Sturmey P. (2004). **The effects of behavioral skills training on Staff implementation of discrete trial training.** *Journal of Applied Behavior Analysis. 37,* 535-538.

Risley, T., & Cataldo, M. (1975). **Planned activity check: Materials for training observers**. Unpublished manuscript. University of Kansas.

Cooper, Heron, & Heward (2007) Improving and assessing the quality of behavioral measurement. In Applied Behavior Analysis (pp 102-124) Pearson

Counting every moment. (2012). Technology Quarterly. The Economist.

The perfected self. Freedman, D.H. (2012). The Atlantic.

Touchette, P., MacDonald, R., & Langer, S. (1985). **A scatter plot for identifying stimulus control of problem behavior.** Journal of Applied Behavior Analysis, 18, 343-351.

The cumulative record. In Ferster, C., Culbertson, S., & Perrott-Boren, M. (1975). Behavior Principles (pp. 329-341). Englewood Cliffs, NJ: Prentice-Hall, Inc.

Graphing Data. In, Alberto. P.A., & Troutmans A. C., (2013) Applied behavior analysis for teachers. (pp 106-123). Boston, MA: Pearson

Graphs. In Hartkopf, R. (1985). Math without tears (pp. 100-113). Boston, MA: G. K. Hall & Co.

...and rackets. In Hartkopf, R. (1985). Math without tears (pp. 114-125). Boston, MA: G. K. Hall & Co.

D. M. Baer (1975). **In the beginning, there was the response**. In E. Ramp & G. Semb. Behavior Analysis Areas of Research and Application (pp. 16-30). Englewood Cliffs, NJ: Prentice Hall, Inc.

Calking, A.B., **Precision Teaching: The Standard Celeration Charts** (2005). *The Behavior Analyst Today, 6*, 207-215

Single-Subject Designs. In, Alberto. P.A., & Troutmans A. C., (2013) Applied behavior analysis for teachers. (pp 124-170). Boston, MA: Pearson