

BEHV 3440

DATA COLLECTION & ANALYSIS

Spring 2024

Instructor:

Dr. April Becker
Office Hours: Wed, 4:30-5:30 pm
Chilton 360G or Zoom room (see
canvas)
april.becker@unt.edu

Course Meeting Information:

M W 2:00 pm – 3:50 pm
Room ENV 190
January 16 – May 10, 2024

Teaching Assistant:

Sarah Owen
Office Hours: Tues, 4:30 - 5:30 pm
Zoom room (see canvas)
SarahOwen2@my.unt.edu

ACCOMMODATIONS

The Department of Behavior Analysis, in cooperation with The Office of Disability Accommodation, complies with the Americans with Disabilities Act. Additionally, **I consider all students to be need an accommodation of some kind** since you are all unique and diverse individuals with complex histories and current situations. **I request that you all submit** a description of your accommodations. Please upload your requests to the “Accommodations” section of your first day’s assignment. You may print this syllabus and use the last page to do this, taking a picture and uploading it. You may alternately just type out your accommodations and upload a word document or PDF. **If your accommodations need to go through ODA as well, please include ODA paperwork and make sure to get it to me by the 3rd week.** The purpose of this course is to inspire, challenge, and establish knowledge and skills. The assignments and deadlines are designed to reach this goal. However, where called for and compatible with the learning of others, I will problem solve with you to make your course compatible with work, childcare, eldercare, pandemic demands, mental health, and other life responsibilities.

POLICIES ON CHILDREN

Respecting parenting status is part of my overall commitment to respecting the wonderful diversity of our UNT community. All exclusively breastfeeding babies are welcome in class as often as necessary. While it is not meant to be a long-term childcare solution, bringing an older child to class in response to unforeseen disruptions to life is also perfectly acceptable. I ask that other students work to reasonably create a welcoming environment for such children. If you do bring your child to class I ask that you sit near the door so that if your little one needs special attention or starts behaving in a way that is disruptive to the learning of other students, you may step outside until their needs have been met. Please use good judgement where this is concerned. These policies also apply to elder care.

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. Make appointments well ahead of time to edit your papers at the writing center before turning them in.

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 each old material between classes.

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, understand the role of the observer's behavior during data collection, and use various 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, display, and interpret data in tables and graphs and will be introduced 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 different recording methods and select the appropriate method.
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) **PARTNERS:** Many class activities and projects will require a partner. You may change partners as often as you like. You must use your UNT email address to contact one another. Partners outside of class are not allowed.
- 2) **LAB MANUAL:** The manual for this class is available from FedEx at 2430 S Interstate 35 #176, Denton, TX 76205. Tell them you're looking for the 3440 manual under Dr. April Becker. All in-class activities and lab notes are in this manual. Manual activities will be submitted online throughout the semester in order to provide feedback and continuous grading.

STUDENT ACTIVITIES, REQUIREMENTS, AND POINT ALLOCATIONS

Activity	Requirements	Points
Lab Manual/ In-class Participation	Students will engage in a variety of activities designed to extend concepts and practice technical skills related to observation and measurement of behavior. Both class attendance and uploaded lesson materials are required to earn credit for each lesson. Lessons are worth anywhere from 1-3 points. Review games require only attendance and participation. Absences can be made up within 5 business days by appointment – see attendance policy below. Late uploads receive half points unless excused.	25 pts
<i>Systems</i> Project with lab partner	In groups of 2, students will design three complete observational systems and use them to record data for 3 days. 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. Grading depends in part on symmetrical contributions between partners.	25
Teach Us Presentation	Students will give a short presentation to the class that details how they would apply class concepts to three behaviors in their chosen application area.	30
Final Exam	The comprehensive exam will cover all materials and skills learned in the class. Reviews and practices will be available.	20
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 to you with an opportunity to evaluate how this course is taught.



You will receive an email 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.

ABSENCES

Lab Manual points **cannot be earned without class attendance**. If you must be absent you should arrange to make up the class by meeting with the instructor or TA before it occurs whenever possible. Later makeups will render subsequent classes difficult since material may build on previous classes. If absolutely necessary or if the absence was unexpected, you may make up missed classes within 5 business days after the class. **Makeups must be done by appointment with either the instructor or TA. Makeups can require an hour or more, depending on the lesson.** Students are responsible for making their own arrangements to schedule makeups and obtain information from any missed class period. Excused absences can be made up for full points, unexcused absences can be made up early for $\frac{3}{4}$ credit or late for $\frac{1}{2}$ credit. No more than 2 consecutive classes or 5 total classes can be made up. Neither excused nor unexcused absences may be made up more than 5 business days after the class.

You are highly encouraged to make up any missed classes. You may be missing key information and instruction if you are absent and do not make up the class.

If a student is feeling sick or unwell, they may send an email to request to attend class via zoom. Please send the email as far ahead of time as possible; emails sent shortly before class may not be detected until after class is completed. The ability to accommodate this will depend on the lesson and the day. Such requests should be sent well ahead of class time, as we may not be able to respond to last-minute request. Zoom attendance is only available in the case of illness. If serious or extended illness occurs, please reach out to instructors so that we can make an arrangement that allows you to focus on your health.

Instructors and TAs reserve the right to adjust this policy and/or make accommodations for unexpected or emergency contexts. Please make sure to communicate with your instructors early and clearly, especially if you have extenuating circumstances, so that we can work with you.

STUDENT CONDUCT

As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. UNT does not tolerate identity-based discrimination, harassment, and retaliation. UNT's full Non-Discrimination Policy can be found in the UNT Policies section of the syllabus.

Each student automatically certifies that any material submitted for grading is his/her own independent work. UNT policies **require reporting of plagiarism or any suspected violations** that constitute possible academic misconduct. Students are responsible for being familiar with the Code of Student Conduct.

COURSE AND SYLLABUS CHANGES

The instructor reserves the right to change the syllabus for any reason including an unanticipated need for logistical rearrangements or for the purpose of improving the course sequence. Any syllabus changes will be announced in class and/or on canvas. Students are expected to attend to these announcements, to note changes on their syllabus, and to respect any adjustments in due dates or other expectations that come about as a result of such changes.

BASIC NEEDS

Your safety and wellbeing is more important than anything going on in class. Please feel free to reach out to me to discuss your needs. Any student who faces challenges securing food, housing, or personal safety is urged to contact the Dean of Students for support. Furthermore, please notify me if you are comfortable doing so. This will enable me to provide any resources that I can.
<https://deanofstudents.unt.edu/>

STUDENT SUPPORT SERVICES

I want to remind everyone that UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- Student Health and Wellness Center
(<https://studentaffairs.unt.edu/student-health-and-wellness-center>)
- Counseling and Testing Services
(<https://studentaffairs.unt.edu/counseling-and-testing-services>)
- UNT Care Team (<https://studentaffairs.unt.edu/care>)
- UNT Psychiatric Services (<https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry>)

- Individual Counseling (<https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling>)

CHOSEN NAMES

A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- UNT Records
- UNT ID Card
- UNT Email Address
- Legal Name

*UNT eulDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.

EMERGENCY NOTIFICATION & PROCEDURES

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.”

PRONOUNS

Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and don’t assume someone’s name, we should also ask and not assume someone’s pronouns. You can add your pronouns to your Canvas account so that they follow your name when posting to discussion boards, submitting assignments, etc. Below is a list of additional resources regarding pronouns and their usage:

- What are pronouns and why are they important?
- How do I use pronouns?
- How do I share my pronouns?
- How do I ask for another person’s pronouns?
- How do I correct myself or others when the wrong pronoun is used?

STUDENT RESOURCES

Academic Resource Center (<https://clear.unt.edu/canvas/student-resources>)

Academic Success Center (<https://success.unt.edu/asc>)

UNT Libraries (<https://library.unt.edu/>)

Writing Center (<http://writingcenter.unt.edu/>)

Writing Lab - <http://writinglab.unt.edu/>

Office of Disability Accommodation - <http://disability.unt.edu/>

Learning Center - <http://learningcenter.unt.edu/> UNT

Student Legal Services (<https://studentaffairs.unt.edu/student-legal-services>)
Career Center (<https://studentaffairs.unt.edu/career-center>)
Multicultural Center (<https://edo.unt.edu/multicultural-center>)
Pride Alliance (<https://edo.unt.edu/pridealliance>)
UNT Food Pantry (<https://deanofstudents.unt.edu/resources/food-pantry>)

COURSE SCHEDULE SPRING 2024

Date (Lesson)	Topics	Readings (due at the beginning of class)	Assignments Due (due 11:59 pm)
Jan 17 (0)	Course Overview		Upload Accommodations
Jan 22 (1)	Basic Issues in Measurement & Behavior as a Scientific Datum	Syllabus Reading: Basic issues in measurement Reading: A system of behavior	Lesson 1 uploads
Jan 24 (2)	Approaches to defining behavior & Identifying Behavioral Definitions and Procedures	Reading: Selection and definition of behavior Reading: Target behavior Reading: Behavioral definitions in applied behavior analysis: Explicit or Implicit	Lesson 2 uploads
Jan 29 (3)	Creating a Behavioral Definition	Reading: Behavior Definitions	Lesson 3 uploads
Jan 31 (4)	Evaluating and Increasing Quality of Observations	Reading: Improving and Assessing the Quality of Behavioral Measurement	Lesson 4 uploads
Feb 5 (5)	Dimensional Properties of Behavior	Reading: Dimensional quantities and units of measurement	Lesson 5 uploads
Feb 7	Teach-us Presentations, Part 1	NO reading for class, come to class with at least one experimental paper that measures your behavior of interest	Instructor Feedback (optional) Teach-us Worksheet 1 Upload
Feb 12 (6.1)	Frequency Measures &	Reading: Frequency of a performance as a fundamental datum Reading: Frequency measures (no active reading)	Lesson 6 uploads
(6.2)	Duration Measures	Reading: Duration measures (no active reading)	
Feb 14 (7.1)	Frequency in the Field & (Observation Period)	NO reading for class	Lesson 7 uploads
(7.2)	Duration in the Field (Observation Period)		
Feb 19 (8)	Opportunity-Based Recording Introduction	Reading: The effects of behavioral training on staff implementation of discrete-trial teaching	Lesson 8 uploads
Feb 21 (9)	Opportunity-Based in the Field (Observation Period)	NO reading for class	Lesson 9 uploads
Feb 26	Teach-Us Project, Part 2	NO reading for class	Teach-us Worksheet 2 Upload
Feb 28	Systems Project, Part 1	NO reading for class	Systems Project Plan Upload

March 4	Teach-us Presentations	NO reading for class	Upload teach-us presentation videos Upload attendance stamp
March 6	Teach-us Presentations	NO reading for class	Upload attendance stamp
March 11-17	Spring Break – no classes		
March 18	Review Game 1	NO reading for class, review previous material to prepare for review game	Instructor Feedback (optional) Upload attendance stamp
March 20 (10.1)	Graphing	Reading: Graphing Reading: Graphs Reading: ... and rackets	Lesson 10.1 uploads
March 25	Systems Project check-in	NO reading for class, come to class with systems project worksheet started	Systems Project Worksheet Upload
March 27 (10.2 & 10.3)	Cumulative Record & Standard Celeration Charting	Reading: The Cumulative Record (no active reading) Reading: Precision Teaching: The Standard Celeration Chart	Lesson 10.2 uploads Lesson 10.3 uploads
April 1 (11.1)	Self Observation, the Quantified Self	Reading: Counting every moment (no active reading) Reading: The perfected self (no active reading)	11.2 Active Reading upload only
(11.2)	Scatterplot	Reading: A scatter plot for identifying stimulus control of problem behavior	
April 3	Systems Project Check-in	NO reading for class	Lesson 11.1 uploads Lesson 11.2 uploads Upload attendance stamp
April 8 (12)	Sampling	Reading: Continuous interval methods (no active reading) Reading: Use of Discontinuous Methods of Data Collection in Behavioral Intervention: Guidelines for Practitioners	Lesson 12 uploads
April 10 (13)	Sampling in the Field (Observation Period)	NO reading for class	Lesson 13 uploads
April 15	Review Game 2	NO reading for class, review previous material to prepare for review game	Upload attendance stamp
April 17 (14)	Experimental Design and Visual Analysis I	Reading: Single Subject Design	Lesson 14 Active Reading Upload Final Systems Project & Individual Report to Canvas by 11:59 pm
April 22 (14)	Experimental Design and Visual Analysis II	NO reading for class	Lesson 14 upload
April 29	Final Exam Prep	NO reading for class	Mock Exam upload
May 6	Final Exam	1:30 – 3:30 pm	

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.
- 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.
- 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