**BEHV 3440**

**DATA COLLECTION and ANALYSIS**

Instructor: Teaching Assistant:

**Sandy Magee, M.S., BCBA Brett Kellerstedt, B.S.**

Chilton 360H Chilton 360

 Phone: (972) 989-5117 Email: Blackboard

Email: Blackboard Office Hours: by appointment

Office Hours: by appointment

 LIFE A419 Tuesday & Thursday 12:30-1:50 p.m.

**Course Description:**

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.

**Course Objectives:**

At the end of the course students should be able to

**1.** Write a reliable operational definition of behavior.

**2.** Record behavior with five 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.

**7.** Explain the logic of single subject designs.

**8.** Describe four single subject designs.

**Textbook**:

Applied Behavior Analysis (2nd Edition)

John O. Cooper, Timothy E. Heron, William L. Heward, 2007

**Materials**:

Stopwatch, calculator, ruler, and graphing paper will be used for in-class data collection exercises at various points in the semester.

**Students Activities:**

**If you must miss class/points for any reason, refer to the parachute points program for an explanation of how to go about making up for missed work**

**Readings** (20 pts: 10 points per quiz + 10 points per note sheet)

Students are to study the assigned readings before class and create a *handwritten* notes sheet based on the material (1 page but you may use front & back). In class you will complete a short quiz over the material – *using your notes*. Attendance is required to earn points for quizzes & notes. Students will turn in notes with quizzes. Late note sheets will not be graded. These assignments must include your name, reading #, and date.

**In-class Exercises (ICE)** (10 points each)

Students will generate objective behavioral/operational definitions, record behavior with five different observational systems (frequency, interval, time-sampling, checklists, and scatter plots), calculate the reliability of their observations, make and read scatter plots of behavior, cumulative records, standard celeration and linear graphs. Attendance is required to earn ICE credit. In class exercises may occasionally be replaced by lectures, when necessary. Thus, the total possible ICE points may change by the end of the semester.

**Final Project** (50 points)

Students will design and carry out a complete observational system. They will write a report including a definition of the behavior, data sheets, observational and reliability procedures, a table of the data, a graph of the data, and a description of the data. In-class activities designed to guide the student in completing this project will be conducted on days listed on the class activity list/student grade sheet. This project will be due near the end of the semester. Specific instructions are provided online.

**Final Exam** (30 points)

Students will be tested, at the end of the semester, on the key definitions and procedures learned during the course. Vocabulary list will be taken from the CH&H text chapters. Links to study aids are on Blackboard.

**Grading Scale:**

90%-100% = A 80%-89% = B 70%-79% = C 60% -69% = D < 60% = F

**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 accommodation request to me before the 4th class.

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| Date | Class Activity |   | POINTS |
| 1/17 | Review Syllabus, Student Grade Record |   |   |
| 1/19 | Rdg 1: Ch3 pgs 48-59 (Stop @ 1st major (bold) header on last page (59); Quiz1 (Q1) |   | 20 |
| 1/24 |  In Class Exercise (ICE) 1 |   | 10 |
| 1/26 | Rdg 2: Ch3 59-71; Q2 |   | 20 |
| 1/31 | ICE 2 |   | 10 |
| 2/2 | Rdg 3: Ch4 72-87; Q3 |   | 20 |
| 2/7 | ICE 3 - Freq |   | 10 |
| 2/9 | Rdg 4: Ch4 88-101; Q4 |   | 20 |
| 2/14 | ICE 4 - Freq + Dur |   | 10 |
| 2/16 | Rdg 5: Ch5 102-113; Q5 |   | 20 |
| 2/21 | ICE 5 Freq + Dur + Part Int |   | 10 |
| 2/23 | Rdg 6: Ch 5 113-124; Q6 |   | 20 |
| 2/28 | ICE 6 Part Int + Whole Int |   | 10 |
| 3/1 | Rdg 7: Ch6 125-138; Q7 |   | 20 |
| 3/6 | ICE 7 Par Int + MTS |   | 10 |
| 3/8 | Rdg 8: Ch6 138-149; Q8 |   | 20 |
| 3/13 | ICE 8 MTS + Scatterplot |   | 10 |
| 3/15 | Discussion of Final Project; Project Description due; Rdg 9: Ch6 149-157; Q9 |   | 30 |
| 3/27 | ICE 9 GrapH Interpretation |   | 10 |
| 3/29 | Rdg 10: Ch7 158-167; Q10 |   | 20 |
| 4/3 | ICE 10 Graphing  |   | 10 |
| 4/5 | Rdg 11: Ch7 167-175; Q11 |   | 20 |
| 4/10 | ICE 11 Graphing |   | 10 |
| 4/12 | Rdg 12: Ch8 176-187; Q12 |   | 20 |
| 4/17 | ICE 12 Graphing |   | 10 |
| 4/19 | Rdg 13: Ch 8 187-199; Q13 |   | 20 |
| 4/24 | Rdg 14: Ch9 200-224; Q14 |   | 20 |
| 4/26 | Final Exam Review Final Project Due by midnight |   | 60 |
| 5/1 | Rdg 15: Ch10 Terms; Q15 |   | 20 |
| 5/8 | FINAL EXAM 10:30 AM- 12:30 PM |   | 30 |