

Applied Behavior Analysis

PSYC 420 - Online

Winter 2024 - 2025

Professor: Dr. Elizabeth McKenney

Office hours: Fridays from 9 – 10 am, or by apptmt.

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Course Description

This course is designed to cover learning principles, measurement and analysis of behavior, and applied techniques for changing human behavior. Particular attention is paid to the technical vocabulary inherent in the field of ABA. The prerequisite for this course is PSYC 111. Learning activities will include online lectures, quizzes, journal articles, and several extra credit opportunities for undergraduate students.

Welcome to the applied study of human behavior! In this course, we study:

- 1) Learning principles, aka, how the environments in which we live encourage us to do more of some things and less of others
- 2) How to observe and measure human behavior
- 3) Applied research about how we can change human behavior
- 4) The ethics of changing other people's behavior
- 5) Single case experimental research designs, including their strengths and weaknesses (Example strength: We don't do very many stats in ABA!)

This is an **ONLINE** course – all activities will occur via Blackboard.

My habits and preferences for communication:

- I try to respond to student emails within 24 hours, or by the end of the day on Monday if you email me over the weekend. If you don't hear back to me within that time, **please send a follow-up email**. You're not bothering me – I get a lot of emails and sometimes I miss one, and I want to make sure that I answer your question.

What I hope you remember from this class in 20 years:

- Humans are powerfully influenced by the things going on around us, including how other people respond to our behavior.
- Without understanding principles of learning, we often reinforce what we want to punish, and punish what we want to reinforce.
- Changing someone else's behavior usually means changing our own behavior first.
- Sometimes systematic learning experiences (e.g., quizzes and other applied activities) really are the best way to learn certain kinds of material (I know, I know. I'd change the truth of this fact if I could).

Course Texts

Cooper, J. O., Heron, T. E., & Heward, W. L. (2020). *Applied Behavior Analysis (3rd Ed)*. Pearson Education.

Miltenberger, R. G. (2016). *Behavior Modification: Principles and Procedures (6th Ed)*. Wadsworth, Cengage Learning.

Course Readings

Andzik, N. R., & Neef, N. A. (2022). Using a token economy to treat escape-maintained problem behavior without extinction. *Behavior Modification*, 46, 128 – 146.

<https://doi.org/10.1177/0145445520966762>

DiGennaro-Reed, F., Coddling, R., Catania, C. N., & Maguire, H. (2010). Effects of video modeling on treatment integrity of behavioral interventions. *Journal of Applied Behavior Analysis*, 43, 291 – 295.

Dotson, W. H., Leaf, J. B., Sheldon, J. B., & Sherman, J. A. (2010). Group teaching of conversational skills to adolescents on the autism spectrum. *Research in Autism Spectrum Disorders*, 4, 199 – 209.

Foxx, R. M., & Rubinoff, A. (1979). Behavioral treatment of caffeinism: Reducing excessive coffee drinking. *Journal of Applied Behavior Analysis*, 12, 335 – 344.

Hinkle, K. A., & Lerman, D. C. (2021). Preparing law enforcement officers to engage successfully with individuals with Autism Spectrum Disorder: An evaluation of a performance-based approach. *Journal of Autism and Developmental Disorders*, online first. <https://doi.org/10.1007/s10803-021-05192-5>

Perrin, C. J., Hensel, S. A., Lynch, D. L., Gallegos, L. R., Bell, K., & Carpenter, K. (2021). Using brief habit reversal and an interdependent group contingency to reduce public-speaking speech disfluencies. *Journal of Applied Behavior Analysis*, 54, 15523- 1565.

<https://doi.org/10.1002/jaba867>

Vollmer, T. R., Peters, K. P., Kronfli, F. R., Lloveras, L. A., & Ibañez, V. F. (2020). On the definition of differential reinforcement of alternative behavior. *Journal of Applied Behavior Analysis*, 53, 1299 – 1303. <https://doi.org/10.1002/jaba701>

Ward-Horner, J., & Sturmey, P. (2012) Component analysis of behavior skills training in functional analysis. *Behavioral Interventions*, 27, 75 – 92. <https://doi.org/10.1002/bin.1339>

Wilder, D. A., Normand, M., & Atwell, J. (2005). Noncontingent reinforcement as treatment for food refusal and associated self-injury. *Journal of Applied Behavior Analysis*, 38, 549-553.

Course Assignments

Zoom Quiz. During the first week of class, students should familiarize themselves with how to record audio files via Zoom and upload those to the site. How to complete the Zoom quiz:

- 1) Record a brief audio clip of yourself (typically about a minute long), providing your name, year in school, major, and reasons for taking this course, what you hope to learn from this class, whether you have any previous experience with Applied Behavior Analysis, and two to three strategies that you use to ensure success in your college courses. Upload this via the link, and following the provided instructions, in the assignment titled Audio Zoom Quiz. **Ten points**,

deductions will only be taken for recordings that do not contain the above information or are excessively long. ***Due Wednesday, December 18th by midnight.***

Chapter Quizzes. After watching the online lecture corresponding to each chapter assigned from Miltenberger (2016) and from Cooper et al. Chapters 1 and 2, students should take the corresponding quiz. Each chapter quiz is worth **10 points** and there are 15 total quizzes per semester, for a total of 150 points. Be aware that **at least one question** per quiz will be about something covered in the lecture that is not covered in the chapter, but is discussed in the online lecture.

To access the quiz, students should do the following:

- 1) Take the quiz on a **STANDARD COMPUTER – not a phone**. The quiz will not work in mobile format (you should probably watch the video on a regular computer, too, to be able to see it well).
- 2) Watch the relevant online module in the Coursework section.
- 3) Take the corresponding quiz, and note any difficult items as you go.
- 4) See feedback, and use it to clarify difficulties/questions as they come up. Note items to clarify/discuss further via email as needed.

Students may **take each quiz twice**, and the average of both attempts will be entered as the grade.

Weekly Reading Reflections. Students will complete a written reflection about the week's readings. Specific prompts and instructions for completing these assignments will be listed with the assignment link in Blackboard, and grading is based on completing all required elements, clear and well-edited writing, accuracy, and thorough discussion. While these assignments will primarily draw from chapters in the Cooper et al. (2020) textbook, ideas and concepts from the Miltenberger (2016) and other readings can also be incorporated. All sources should be cited and referenced. Each of these is worth **40 points**.

Single Case Design Modules, Article Readings, and Single Case Design Quizzes. Students will be responsible for reading journal articles using various forms of single case designs, and watching the online module corresponding to the type of design used in the article(s). The journal articles to be read over the course of the semester are listed as **Course Readings** on the first page of this syllabus, and are listed when they are assigned on the **Course Calendar**. Each of these articles is fully available electronically via an SIUE computer/login.

To review, the steps involved in completing the single case design module(s) should be completed in the following order:

- 1) **Article Reading.** Read the article(s) for designated in the appropriate weekly folder. You may also wish to review the suggested pages from Cooper et al. (2020) for additional details and helpful content, however, these Cooper et al. readings are optional.
- 2) **Single Case Design Module.** Watch the corresponding online module on BB.
- 3) **Single Case Design Quiz.** Complete the quiz after watching the module. Two attempts are allowed per quiz, and the average of both will be used as the grade. Each quiz is worth **10 points**.

SQ3R: Survey, Question, Read, Recite, Review. Four times during the semester, students will read an article and use the SQ3R note-taking tool. The journal articles to be read are listed as **Course Readings** on the first page of this syllabus, are provided with the assignment link in Blackboard, and are noted in the course calendar. Each of these assignments is worth **15 points**. This note-taking format is designed to facilitate students' learning the reading material and ability to complete reflection activities, and is not intended to be a work intensive, perfectly polished product. Thus, grades are based on completion rather than content. I look forward to seeing your thoughts, connections, and connections in note form. Please make sure to write the questions at the end of the assignment in full sentences.

Professionalism and Netiquette. The online environment requires respect for all participants. Students are expected to conduct themselves in a considerate manner. Clear expression is to be valued above the desire to immediately make one's point.

Students are encouraged to remember that electronic communication does not convey tone, and thus, can be easily misconstrued. Good intentions are also difficult to convey electronically, and cannot replace responsible acknowledgment of hurt caused, however unintentionally. Therefore, if you learn from a peer or the instructor that you have caused offense, a good first step is to *apologize*, try to understand how harm was caused, and then restate your point.

Please visit <http://www.albion.com/netiquette/corerules.html> to learn about pitfalls of online-only communication, simple steps that you can take to prevent falling into such pitfalls, and how to become more skilled in the ever-important area of effective digital communication.

Given all the direction and the resources provided above, students are graded on professionalism and Netiquette, which includes the adequacy of communication with the instructor. Any upload, post, or email in violation of the above guidance will incur a grading penalty and any other course or university consequences as appropriate.

Extra credit. Undergraduate students are invited to earn extra credit by attempting the graduate level assignments in this course. Undergraduate students can respond to graduate student discussion prompts in whole or in part, for up to 5 extra credit points per opportunity. Please note that there are a total of three such extra credit opportunities during the semester.

Undergraduate students can also upload discussion of single case graphs, for up to 5 extra credit points per opportunity.

All extra credit must be submitted by midnight on January 5, 2025 to be considered, and earlier submissions are preferred.

Undergraduate Course Grades

Assignment	Total Points	Percentage of Grade
Zoom Quiz – Audio Upload	10	2.5%
Chapter Quizzes (15)	150	37.5%

Weekly Reading Reflections	120	30%
SCD Quizzes	50	12.5%
SQ3R Assignments (4)	60	15%
Professionalism & Netiquette	10	2.5%
Total	40010/74	100%
<p>Course Averages</p> <p>A = 90% or above = 358 points or above</p> <p>B = 80 – 89% = 318 - 357 points</p> <p>C = 70 – 79% = 278– 317 points</p> <p>D = 60 – 69% = 238 - 277 points</p> <p>F = Below 60% = Below 238 points</p>		

Additional Requirements for Graduate Students

Graph Discussions. With the relevant graph slides on the screen (powerpoint slides containing relevant graphs from each assigned article to be reviewed are on BB), record and upload a brief Zoom video (**5 – 10 minutes**) describing *the relevant visual analysis features of the graph and the strength of evidence for a functional relationship*. Zoom can be used to record the video, or students can take the video via phone and upload it from there. Please check volume and clarity before uploading. Links for uploading will be provided within each assignment. In the case of significant obstacles to audio recording, students can write their graph discussion and upload it via as a Word/PDF file, with prior instructor approval.

Graph discussion uploads are **worth 50 points each**, for a total of 150 points. Graph discussions will be graded on whether all relevant visual analysis features are discussed, accuracy of identifying relevant visual analysis features, accuracy in interpreting visual features of the graph, and accuracy of overall interpretation of the strength of evidence for a functional relationship.

Verbal analyses of single case graphs are due by 11:59 pm each Sunday during the semester.

Discussion Questions/Activities. Discussion materials related to ABA, psychology, and/or general scholarship will be posted each week to Blackboard. These materials may include additional chapters, articles, videos, or other information of interest. Each set of materials will also be accompanied by discussion questions. Responses should be no more than one page, single spaced, typed and with citations and references completed in accordance with APA format. Grading criteria include that all parts of the question are addressed, writing is professional and sophisticated, and critical thought has been applied to the question. Students are encouraged to link the reading/podcast information asked about in each Blackboard discussion piece and related questions to their own professional, academic, and/or personal experiences. These discussions are worth **20 points each**.

Discussion questions/activities are due by 11:59 pm each Sunday during the semester.

Graduate Course Grades

Assignment	Total Points	Percent of Grade (Approx.)
Zoom Quiz	10	2%
Chapter Quizzes (13)	150	24%
Weekly Reading Reflections	120	19%
SCD Quizzes	50	8%
SQ3R Assignments (4)	60	10%
Article/Video Discussion Questions (3)	60	10%
Single Case Design Graph Discussions (3)	150	24%
Professionalism/Netiquette	20	3%
Total	620	100%
Course Averages A = 91.5% or above = 567 points or above B = 83.5% - 91.4% = 518 – 566.9 points C = 77.5% - 83.4% = 480.5 – 517.9 points D = 480.4 points or below		

Instructor, Departmental, and University Policies

Instructor Policies

Online materials. Many course materials and additional materials are available on our course Blackboard site. Simply click each link to access the materials. I have labeled each link and content area as intuitively as possible. Please pay attention to folder names to help navigate Blackboard, and do not hesitate to let me know if you are having a hard time finding something.

Communication. All students must have an SIUE email address to participate fully in this course, as email will be used to communicate information regarding assignments, any changes to course structure, and to provide individual student feedback, when necessary.

Academic Engagement. Being engaged in this course includes checking email and Blackboard regularly, communicating with the instructor about any delays in completing course assignments, and completing assignments promptly.

Assignments. All assignments must be completed to receive a grade in this course. Please be aware that it is completely your responsibility to adhere to all relevant university guidelines related to officially withdrawing from this course.

APA Format in Written Work. Students are expected to be familiar and/or to familiarize themselves with APA standards for citations and references, per the *7th edition* of the Publication Manual of the American Psychological Association. Please ensure that you have access to this text at any time that you may need it during the semester.

*****A lack of knowledge of appropriate citation and referencing format will not excuse you from point deductions from written assignments or disciplinary action in the case of plagiarism.*****

If you would like additional instruction in the use of APA format, please arrange to speak with me, or seek out the resources described below.

Students who require additional assistance in writing in the areas of grammar and/or organization are strongly encouraged to seek out additional assistance from outside sources to assist in improving their ability to revise their written work. University-based services for assisting students with professional writing include the Writing Center (<https://www.siu.edu/lss/writing-center/resources.shtml>), which also provides workshops in APA style.

Department Policies

The Psychology Department's Writing Policy. As a student in this course, you will be expected to display college-level writing, which includes completing course assignments that meet the following basic writing criteria. Specifically, all written assignments completed for this course should include:

- clear transitions from sentence to sentence and idea to idea (e.g., paper is organized/flows well);
- verb tense consistency;

- clear and unambiguous sentences and ideas;
- writing that is free of typos, spelling errors, and major grammatical errors;
- properly formatted citations and references, per **the 7th edition** of the APA manual.

This is by no means an exhaustive list of basic writing skills, but will give you an idea of what we are looking for in our papers. If you feel you need help with your writing, you are encouraged to seek assistance from the writing center on campus or use one of the many online resources they have identified to help students. If your graded written assignments fail to meet the basic writing requirements listed above (and any others found to be appropriate by your instructor), the instructor will stop the grading process and return the paper to you (see below for the specific policy for this class).

The penalty for unacceptable writing in this class is as follows: if any written assignment violates any of the above stipulations, or is otherwise inconsistent with the stated expectations for a written assignment, it will be returned to you for resubmission, and 25% of the total available points will be deducted from the final grade assigned after resubmission.

The Psychology Department's Policy on Plagiarism

Plagiarism includes presenting someone else's words without quotation marks (even if you cite the source), presenting someone else's ideas without citing that source, or presenting one's own previous work as though it were new. When paraphrasing from another source or your own work, at the very least, the student should change the wording, sentence syntax, and order of ideas presented in the paper. Additionally, you should not submit a paper, or parts of a paper, written to fulfill the requirements of one class for the requirements in another class without prior approval of the current instructor and appropriate citation. Ideally, the student will integrate ideas from multiple sources while providing critical commentary on the topic in a way that clearly identifies whether words and ideas are those of the student or are from another source. Plagiarism is one type of academic misconduct described in SIUE's [Student Academic Code \(3C2\)](#). University policy states that "Normally a student who plagiarizes shall receive a grade of F in the course in which the act occurs. A plagiarism offense shall be reported to the Provost and Vice Chancellor for Academic Affairs" ([Plagiarism \(116\)](#)). The University policy discusses additional academic sanctions including suspension and expulsion from the University. To ensure that you understand how to avoid plagiarism, we encourage you to review the linked information on plagiarism.

In addition, it is expressly prohibited for students to work together on, review, or look at each other's homework, papers, or presentations for this class.

The Psychology Department's Policy on Incomplete Grades and Withdrawal

All withdrawals must be completed by the end of the 13th week of classes during fall and spring, and by a similarly late date (i.e., before 82% of class meetings have occurred) in any summer term. Grades that apply to students who initiate a withdrawal and grades that apply when a student fails to officially withdraw within established deadlines are determined by university policy (see [Grading System \(111\)](#)). The granting of a grade of I (Incomplete) is not automatic. It is available only in cases when a student has completed most of the work required for a class but is prevented by a medical or similar emergency

from completing a small portion of the coursework before the deadline for grade submission. An I must be approved by the instructor with appropriate documentation provided by the student. If an instructor agrees to give a student an I, the instructor will fill out a Memorandum of Incomplete Grade to be kept with the student's records. If the work is not completed by the time specified on the Memorandum, the student's grade will be changed from I to F.

University Policies and Information

University policies and guidance that address teaching, learning, and student support services are available at: <https://kb.siu.edu/132378> Students are encouraged to visit this resource site for current information on:

- Regular and substantive interaction
- Recordings of class content
- Diversity and inclusion
- Pregnancy and newly parenting policy
- Services for students needing accommodations (ACCESS)
- Academic and other student services (Library, Academic Success, Tutoring, etc.)
- Cougar Care
- Student success coaches

Subject to change notice

All material, assignments, and deadlines are subject to change with prior notice. It is your responsibility to stay in touch with your instructor, review the course site regularly, or communicate with other students, to adjust as needed if assignments or due dates change.

Technology Requirements and Capabilities

Technical requirements for students can be found in this [ITS KnowledgeBase article](#). Additional resources for learning with technology can be found on the [Online at SIUE site](#).

Technical Support

Contact ITS at [618-650-5500](tel:618-650-5500) or at help@siue.edu with any technical concerns. You can also check the functionality of University systems, including Blackboard, at the [ITS System Status page](#), or search the [ITS KnowledgeBase](#) for various how-to and troubleshooting guides.

Course Calendar

Week 1

December 16 - 22 – All weekly lectures and activities will be posted by 8 am on Monday, December 16th

Weekly activities:

1. **Complete Zoom quiz/demo by midnight on Wednesday, December 18th**
2. Read: Definition and Characteristics of ABA, Cooper et al. Chp. 1
 - a. Watch online lecture
 - b. Complete quiz
3. Read: Basic Concepts and Principles, Cooper et al. Chp. 2
 - a. Watch online lecture
 - b. Complete quiz
4. Read: Observing Behavior, Miltenberger Chp. 2
 - a. Watch online lecture
 - b. Complete quiz
5. Read: Measuring Behavior, Cooper et al. Chp. 4
 - a. Watch online lecture
6. Read: Reinforcement, Miltenberger Chp 4.
 - a. Watch online lecture
 - b. Complete quiz
7. Read: Extinction, Miltenberger Chp 5.
 - a. Watch online lecture
 - b. Complete quiz
8. Read: Positive Punishment, Cooper et al., Chp. 14
 - a. Watch online lecture
9. Read: Negative Punishment, Cooper et al. Chp 15
 - a. Watch online lecture
10. After all of the above are complete:
 - a. Upload weekly reading reflection
11. **Single Case Design – Intro to Visual Analysis**
 - a. Watch: SCD Lecture #1
 - b. Complete SCD Quiz 1
12. **Single Case Design – AB Phase Change**
 - a. Watch: SCD Lecture #2
 - b. Complete SCD Quiz 2

Graduate Students

- A. Read: Improving and assessing the Quality of Behavioral Measurement, Cooper et al. Chp. 5
 - a. Complete assigned activity
- B. ABAB Audio Upload (in ABAB Designs Folder)

10% plus two points per day will be deducted from all Week 1 work submitted after midnight on December 22nd

Week 2

December 23 - 29 – All weekly lectures and activities will be posted by 8 am on Monday, December 23rd

Weekly activities:

1. Read: Stimulus Control, Cooper et al. Chp. 17
 - Watch online lecture
2. Read: Respondent Conditioning, Miltenberger Chp. 8
 - Watch online lecture
 - Complete quiz
3. Read: Shaping, Miltenberger Chp. 9
 - Watch online lecture
 - Complete quiz
4. Read: Chaining, Miltenberger Chp. 11
 - Watch online lecture
 - Complete quiz
5. Read: Behavioral Skills Training, Miltenberger Chp. 12
 - Watch online lecture
 - Complete quiz
6. Read: Functional Assessment, Miltenberger Chp. 13
 - Watch online lecture
 - Complete quiz
7. Read: Applying Extinction, Miltenberger Chp. 14
 - Watch online lecture
 - Complete quiz
8. After all of the above are complete:
 - Upload weekly reading reflection
9. **Single Case Design – ABAB**
 - Watch: SCD Lecture #3
 - Read: Wilder et al. (2005)
 - Complete ABAB Quiz (helpful readings: Cooper et al. Chp. 8 pp. 171 – 180)
10. **Single Case Design – Multiple Baseline**
 - Watch: SCD Lecture #4
 - Read: DiGennaro-Reed et al. (2010)
 - Read: Dotson et al. (2010)
 - Complete MB Design Quiz (helpful readings: Cooper et al. Chp. 9 pp. 193 – 209)
11. SQ3R # 1 – Hinkle & Lerman (2021)
 - Read article and take notes as you do (using SQ3R form)
 - Compare to relevant course readings on similar topic(s)
 - Complete and upload SQ3R form

Graduate Students

- A. Read: Motivating Operations, Cooper et al. Chp. 16
 - a. Complete assigned activity
- B. MB Design Audio Upload (in Multiple Baseline Designs folder)

10% plus two points per day will be deducted from all Week 2 work submitted after midnight on December 29th

Week 3

December 30 - January 5 – All weekly lectures and activities will be posted by 8 am on Monday, December 30th

Weekly activities:

1. Read: Differential Reinforcement, Cooper et al. Chp. 25
 - Watch online lecture
2. Read: Antecedent Control Strategies, Miltenberger Chp. 16
 - Watch online lecture
 - Complete quiz
3. Read: Generalization and Maintenance of Behavior Change, Cooper et al. Chp. 30
 - Watch online lecture
4. Read: Self-Management Miltenberger Chp. 20
 - Watch online lecture
 - Complete quiz
5. Habit Reversal (Chp 21)
 - Watch online lecture
 - Complete quiz
6. Read: Token Economy, Group Contingencies, and Contingency Contracting, Cooper et al. Chp. 28
 - Watch online lecture
7. Anxiety Reduction (Chp 24)
 - Watch online lecture
 - Complete quiz
8. After all of the above are complete:
 - Upload weekly reading reflection
9. **Single Case Design – Changing Criterion and Alternating Treatments Designs**
 - Watch: SCD Lecture #5
 - Read: Foxx & Rubinoff (1979)
 - Read: Ward-Horner & Sturmey (2012)
 - Complete CC and AT Designs Quiz (helpful readings: Cooper et al. 8 pp. 180 – 191 and Cooper et al. 9 pp. 209 – 213)
10. SQ3R #2 – Vollmer et al. (2020)
 - Read article and take notes as you do (using SQ3R form)
 - Compare to relevant course readings on similar topic(s)
 - Complete and upload SQ3R form
11. SQ3R #3 – Andzik & Neef (2022)
 - Read article and take notes as you do (using SQ3R form)
 - Compare to relevant course readings on similar topic(s)
 - Complete and upload SQ3R form
12. SQ3R #4 – Perrin et al. (2021)
 - Read article and take notes as you do (using SQ3R form)
 - Compare to relevant course readings on similar topic(s)
 - Complete and upload SQ3R form

Graduate Students

- A. Watch: Vollmer video on BB
 - a. Complete assigned activity
- B. AT and CC Designs Audio Upload (in Changing Criterion and AT Designs folder)

10% plus two points per day will be deducted from all Week 3 work submitted after midnight on January 5th

The instructor reserves the right to make changes to this course calendar at any time during the semester, as needed given instructional and time demands.

