

## Psychology 288: Advanced Applied Behavior Analysis

**Fall 2010**

4 Units

Monday & Wednesday 11:00-12:50

California State University, Fresno

Department of Psychology

Professor: Amanda Adams, Ph.D., B.C.B.A.

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### ***Required Materials:***

1. Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis*. Columbus, OH: Merrill.
2. Skinner, B. F. (1974). *About Behaviorism*. New York: Vintage Books.
3. One additional required book from a selected list – student to purchase online mid-semester.
4. Additional readings and journal articles available online or provided by instructor

### ***Course objective:***

This course is designed to help students understand the philosophical and theoretical underpinnings of behavior analysis and to demonstrate how behavioral learning theory is applied in real world settings. The class also will acquaint students with different strategies that may be used to assess and change behavior, as well as the variety of settings in which behavioral principles and techniques may be applied to improve the lives of individuals.

### ***Student learning outcomes:***

Students who meet course requirements will finish the class with a repertoire of basic behavior analytic skills. Specifically, students will be able to:

5. Understand behavioral principles from both a theoretical and applied perspective
6. Cover all areas on the task list of competencies for the national Board Certified behavior Analyst exam
7. Identify and operationally define target behaviors
8. Develop and implement systems for recording and measuring behavior
9. Display behavioral data on graphs
10. Conduct a functional behavior assessment
11. Develop and implement functional, appropriate, and ethical behavior change plans
12. Assess the effectiveness of behavior change plans using single case research designs
13. Plan for generalization and maintenance of behavior change
14. Understand basic theoretical underpinnings for the science of behavior analysis
15. Understand extensions of contemporary behavior analytic practice

### ***NASP Domains Covered in this Course:***

1. Data based decision-making and accountability.
  - 2.3 Effective instruction and development of cognitive/academic skills
  - 2.4 Socialization and development of life skills
  - 2.5 Student diversity in development and learning
  - 2.11 Information technology

***Course requirements:***

Study Questions: For every weeks reading assignment you will have study questions to review and submit or a review form to complete. Study questions should be typed and turned in at the beginning of the second class meeting of the week.

Definition, measurement & Graphing Assignment: Each student will select a behavior to target for intervention and complete three tasks: 1) operationally define the behavior, 2) measure the behavior – with sufficient explanation provided for choice of measurement system, and adequate amount of data, 3) graphing the data appropriately.

FBA/BIP Project: Students will write a report on an actual behavior problem that includes the detail of a full functional assessment process and a behavior plan resulting from the assessment. Part One of the report will include an explanation of tools used, the type and method of data collection, summary of data collection including graphical displays and resulting conclusions from your assessment.. Part two of the report will include a behavior plan that is functionally linked to the assessment with procedures described well enough that they could be implemented in a real setting, suggested data collection or ongoing assessment and a fade out plan. This will be discussed more in class and an example provided. The purpose of the assignment is for student to feel entirely competent at executing a real full blown FA suitable for defense in a court case or other highly charged situation. We will discuss in class settings in which appropriate subjects for this assignment are available.

Literature Review: Each student will be required to write a research paper highlighting behavioral contributions to a particular area of application (e.g., child abuse prevention, autism intervention, job training for adults with developmental disabilities, classroom management strategies, instructional improvement, etc.). Your paper also should include a specification of future research that could be done regarding the topic you reviewed. I am open to a variety of topics, but I must approve your topic and three of your references before you begin writing. The paper should include 5-10 references, with no more than two of those references citing non-experimental papers. The majority of your articles should come from behavioral journals, including but not limited to the *Journal of Applied Behavior Analysis*, *Journal of Behavioral Education*, *Journal of Autism and Developmental Disorders*, *Behavior Modification*, *Behavior Therapy*, and *Behavioral Interventions*. You may use readings assigned in class as references in your paper if they are appropriate for your topic. Please note that you should not cite any paper that you did not directly read (this is referred to as using indirect citations). Use of indirect citations will result in reduction of your score on the assignment by one letter grade. Plagiarizing (i.e., using someone else's words as your own without properly referencing the author's work) any part of your paper will result in a score of zero for the assignment with no recourse. All papers should be written in accordance with the APA publication manual (5<sup>th</sup> ed.).

Book Review: A selection of books related to Behaviorism is included at the end of the syllabus. Each student will be responsible for selecting one of these books to read, write a formal book review, and present to the class in a power point presentation. Details on the paper format will be discussed in class. Other books may be approved at the instructors discretion and any exceptions must be submitted for approval by October 21<sup>st</sup>.

Presentation: Each student will give a brief presentation summarizing one of the major projects: lit review, FBA/BIP or his or her book review. Specific guidelines will be provided prior to this assignment. Presentations should be given with Power Point or a similar program and should be approximately 10 minutes. This is required. Students with a fear of public speaking should consult with me early in the semester for help or alternatives.

Mid –Term & Final Exam: Two exams, a mid-term and a final take-home exam will given. For each, there will be an in-class portion and a take-home portion. Exams will cover all content presented in class and will require that you integrate and apply concepts. Details for completion of the exams will be provided when they are distributed.

***Additional expectations***

Attendance & Participation: I expect that every student will actively participate in every class. I also expect that each student will have completed all of the readings assigned for each class meeting prior to coming to class. For each reading set, I will provide objectives to help guide your reading and assist you in identifying the most important concepts. Answers to reading objectives will never be collected, but you will be much better prepared for quizzes and class discussions if you do them. You are free to work together to discuss the readings, but my expectation is that every student will personally read every assigned reading.

Attendance is ~~required~~ but will not be formally counted. Please attend class and be prepared to participate fully so you can take the fullest advantage of the material and discussion available during class time. Graduate students do not earn points to come to class prepared and ready to engage. Please note that missing class due to observance of a religious holiday will be respected.

Independence of work: Anything that you submit for grading in this class should be your own original work. While out of class discussion of readings is encouraged, all assignments, quizzes, and exams should be done independently. Plagiarism on assignments, quizzes, or exams in this class constitutes cheating, and will result in an F on the assignment/quiz/exam with no recourse.

Requests for assistance: If you are having problems in the class, or if you simply have additional questions about the field of behavior analysis that you'd like to discuss, please let me know. I am happy to accommodate student schedules for meetings, but it is your responsibility to let me know when you need help.

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***Grade Calculation***

Weekly Study Questions:.....	200 points (10 x 20 points)
Definition, Measurement & Graphing.....	150 points (50 points for each section)
FA Write Up.....	50 points
BIP Write Up.....	50 points

Literature review.....	100 points
Book Review.....	100 points
Presentation.....	50 points
Mid Term .....	150 points(100pts = take home, 50 pts = in class)
Final Exam .....	150 points (100pts = take home, 50 pts = in class)
<b>1000 points total</b>	

**University Policies**

Students with Disabilities: The Americans with Disabilities Act (ADA) requires that all qualified persons have equal opportunity and access to education regardless of any disabling condition. Please notify me if an accommodation is needed for this course. A letter from the Services for Students with Disabilities office must accompany the request. Students who have registered with Disabled Student Services will be accommodated according to their special needs.

2 For more information contact Services to Students with Disabilities (278-2811).

Honor Code: —Members of the CSU Fresno academic community adhere to principles of academic integrity and mutual respect while engaged in university work and related activities”.

Cheating & Plagiarism:

–Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one’s grade or obtaining course credit; such acts also include assisting another student to do so.

Typically, such acts occur in relation to examination. However, it is the intent of this definition that the term “cheating” not be limited to examination situation only, but that it include any and all action sbu a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means.

Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., the intellectual property) so used as one’s own work.” Penalties for cheating and plagiarism range from receiving a 0 or F on a particular assignment, through and F for the course, to expulsion from the university.

3 My policy: First offense will result in 0 on assignment or test with no recourse, and a conference with me. Second offense will result in referral to the department chair for disciplinary action.

**Subject to Change**

This syllabus and schedule are subject to change, however I will always announce in advance if/when this is the case. If you are absent from class, it is your responsibility to check announcements made while you were absent.

**Blackboard**

This class has a corresponding web-based component through Blackboard. I will post announcements and assignments on Blackboard. It will be a good idea to be in the habit of checking the Blackboard page at least once a week or more.

*Schedule of Events*

Session	Topic	Assigned Readings	Reminders
Introduction to Applied Behavior Analysis – Background and Context			
1	Introduction to course		
2	The role of ABA today	Baer, Wolf & Risley article Hayes, Hayes & Reese article	SQ1 due
CHH Part 1 & 2: Basic Concepts & Selecting, Defining & Measuring Behavior			
3	Basic Concepts	CHH, Ch 1&2	
4	Selecting & Measuring Behavior	CHH, Ch 3-4 Wolf article	SQ2 Due
LABOR DAY – NO CLASS			
5	Measuring Behavior	CHH, Ch 5	
CHH Part 3: Evaluating & Analyzing Behavior Change			
6	Graphical Displays, Analyzing Change	CHH, Ch 6-7	
7	Research Designs & Evaluation	CHH, Ch 8-10	SQ3 Due
CHH Part 4: Reinforcement			
8	Reinforcement	CHH, Ch 11-12	<b>Def/Msmt Asmt Due</b>
9	Reinforcement	CHH, Ch 13 & Craft article	
CHH Part 5: Punishment			
10	Punishment	CHH, Ch 14 &15	SQ4 Due
11	Talk about Lit Review & Book Review	Lit review <b>Topics &amp; Book Choice Due</b>	
CHH Part 6 & 7: Antecedent Variables & Developing New Behavior			
12	Motivating O. & Stimulus Control	CHH, Ch 16&17	
13	Imitation, Shaping & Chaining	CHH, Ch 18-20 *Take Home Mid-term distributed	SQ5 Due
CHH Part 8 & 9: Decreasing Behavior with Non-Punishment Procedures & Functional Analysis			
14	Extinction & Diff. Reinforcement & NCR	CHH, Ch21 - 23	
15	Antecedent Interventions		SQ 6 Due

16	MID-TERM – In class Portion		<b>MID-TERM DUE</b>
17	Functional Analysis	CHH, Ch 24 & Iwata article	

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**CHH Part 10 & 11: Verbal Behavior & Special Application**

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18	FA & BIP – practical in class		
19	Verbal Behavior	Ch 25	<b>FA Write Up Due</b>

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**CHH Part 12 & 13 and RFT: Generalized Behavior Change & Ethics & Relational Frame Theory**

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20	Contingency Contract & Self Mgmt	Chpt 26 & 27 & Miller article	<b>SQ7 Due</b>
21	Generalization and Maintenance & Ethics FRESNO STATE'S ABA Conference	Ch 28 & 29	<b>BIP Write Up Due</b>

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**RFT & About Behaviorism**

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22	Relational Frame Theory	Dougher article	<b>SQ8 Due</b>
23	About Behaviorism	Ch 1 - 3	
24	About Behaviorism	Ch 4-6	<b>SQ 9 Due</b>
25	About Behaviorism	Ch 7 - 10	<b>Lit Reviews Due</b>

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**HAPPY THANKSGIVING**

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26	About Behaviorism Thanksgiving Holiday – NO CLASS	Ch 11- 14	
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**Wrap Up and Book Reviews**

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27	<b>Discussion on About Behaviorism</b>		<b>SQ 10 Due</b>
28	Book Review Presentations		
29	Book Review Presentations		12/6*Take-Home portion
30	Book Review Presentations		Final Exams Distributed <b>BOOK REVIEW DUE</b>

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**Finals**

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W 12/13	Final Exam Week		<b>Final Exam – In class portion</b>
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<sup>1</sup>I reserve the right to change this schedule; however, I will always give advance notice if changes are made.

**Journal Article Reading list:**

- Baer, D. M., Wolf, M. M., & Risley, T. R. (1987). Some still current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 20, 313-327.
- Hayes, S.C., Hayes, L.J., & Reese, H.W. (1988). Finding the philosophical core: A Review of Stephen C. Pepper's World Hypotheses: A study in evidence. *Journal of Experimental Behavior Analysis*, 50, 97-111.
- Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *JABA*, 11, 203-214.
- Craft, M. A., Alber, S. R., & Heward, W. L. (1998). Teaching elementary students with developmental disabilities to recruit teacher attention in a general education classroom: Effects on teacher praise and academic productivity. *Journal of Applied Behavior Analysis*, 31, 399-415.
- Anderson, C. M., & McMillan, K. (2001). Parental use of escape extinction and differential reinforcement to treat food selectivity. *Journal of Applied Behavior Analysis*, 34, 511-515.
- Tucker, M., Sigafos, J., & Bushell, H. (1998). Use of noncontingent reinforcement in the treatment of challenging behavior: A review and clinical guide. *Behavior Modification*, 22(4), 529-547.
- Dunlap, G., dePerczel, M., Clarke, S., Wilson, D., Wright, S., White, R., & Gomez, A. (1994). Choice making to promote adaptive behavior for students with emotional and behavioral challenges. *Journal of Applied Behavior Analysis*, 27, 505-518.
- Iwata, B. A., Dorsey, M F., Slifer, K. J., Bauman, K. E., Richman, G. S. (1994). Toward a functional analysis of self-injury. *JABA*, 27, 197-209.
- Miller, D. L., & Kelley, M. L. (1994). The use of goal setting and contingency contracting for improving children's homework performance. *Journal of Applied Behavior Analysis*, 27, 73-84.
- Dougher, M. J. (2002). This is not B. F. Skinner's behavior analysis: A review of Hayes, Strosahl, and Wilson's Acceptance and commitment therapy. *Journal of Applied Behavior Analysis*, 35, 323-336..

**Book Review Selection List:**

Walden Two, B.F. Skinner. 1976. New York. MacMillan. (ISBN 0-02-411510-X)

The Reluctant Reliance: Behaviorism and Humanism, Bobby Newman, 1992. Prometheus Books. (ISBN: 0-87975-727-2)

Beyond Freedom and Dignity, B.F. Skinner, 1972.

The Dependent Gene: The Fallacy of –Nature vs. Nurture”, David S. Moore, 2003.

Outliers: The Story of Success, Malcolm Gladwell, 2009. Little Brown & Co. (ISBN: 978-0-316-01792-3)

Relational Frame Theory: A post-Skinnerian Account of Human Language and Cognition. , Eds. Steven Hayes, Dermot Barnes-Holmes & Bryan Roche, 2001. (ISMB: 0-306-46600-7)

The New Behaviorism: Mind, Mechanism and Society, John Staddon, 2000. (ISBN: 1-84169-014-7)

Acceptance and Commitment Therapy: An Experimental Approach to Behavior Change, Steven Hayes, Kirk Strosahl & Kelly Wilson, 2003 (ISBN: 1-57230-955-5)

Don’t Shoot the Dog, Karen Pryor, 1984. Bantam Books. (ISBN: 0-553-25388-3) (1 of 2 books)\*

How Dogs Learn, Mary Burch & Jon Bailey, 1999. Howell Book House. (ISBN: 0-87605-371-1) (2 of 2 books) \*

Behind the Schoolhouse Door: Managing Chaos with Science, Skills and Strategies , Glenn I. Latham

## **Guidelines for Book Review**

Dr. Amanda Adams

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*The final paper will be about 8 pages upon completion. APA formatting should be observed including a reference page for all sources. The book review should include four sections:*

Introduction: (1-2 pages) Introduce the main ideas of the book, the purpose for which it was written, the overall ideas. Avoid getting into details, but give an overview. You can treat this a bit like and abstract.

Review of contents: (3-4 pages). This section should be like a book report...summarize the contents of the book as if you were telling a friend about it in some detail. Chapter by chapter, or section by section, write what the book covered. Do not go over four pages...you are summarizing – not paraphrasing. To make this review a higher level than the book reports from high school, you will need to make comments as you go through the review. You may say, –this was the most intriguing chapter in the book because...”, or –it didn’t seem that the author accomplished the goal in this chapter because...”. A thoughtful, intelligent but brief comment on the reading is the goal. You may reference other books or materials (use proper APA). If you are making a claim, it should be backed by a cited source, if you are giving your opinion, make sure it is written as such.

Discussion Points: (2 pages). In this section, you will get away from a summary of the material and make more general discussion points. You may draw the material from the book you read to another field of study, or how it could impact another area of practice or research. This is the area in the paper



with which you have the most freedom. Share your insights from the book. You can go off on tangents here as long as you wrap them back into the material at some point.

Conclusion : (1 page). Your final thoughts on the book. Do you recommend it or not and why? What audience is best for this book? In other words, under what circumstances would you or would you refrain from recommending this book? What do you think a potential reader will get out of it? Include your final thoughts and conclusions.

## **Literature Review Assignment** *Score Sheet*

### Scores on Different Segments of Your Paper:

Comment on what you think researchers should do in the future.

Explain what the most important thing for professionals to know from this study is.

1. *Statement of the problem*

Explain the purpose of the lit review.

Explain how the topic was socially significant.

For each study reviewed:

2. *Participants and Setting*

State who the participants were and where the study took place.

3. *Dependent Variable(s)*

Identify the behaviors targeted as dependent variables.

Describe how the behaviors were measured.

Explain whether the method for collecting data on the DV was appropriate.

4. *Independent Variable(s)/Procedures*

Describe the interventions/treatments used in the study.

Identify who was responsible for implementing the interventions and whether this seemed appropriate.

5. *Research Design*

Name and describe the research design used in the study.

Explain whether you think this design was appropriate and why/why not.

6. *Results*

Summarize the most important findings.

7. *Analysis/Critique*

## EXAMS

### Psych 288: Advanced Applied Behavior Analysis Mid-Term, Fall 2010

**Complete first 4 questions. Then choose two questions from 5 – 8 to answer (you will not answer 2 questions on this exam). You will only get points for two questions from 5-8. If you answer more, I will grade the first two and skip the rest.**

- 1) What is behaviorism and its main branches of study?
- 2) What are the benefits of graphic display and visual analysis of behavioral data?
- 3) What is a functional relationship and how is it demonstrated in behavior analytic research?
- 4) What is the importance of systematic manipulation of independent variables and how this contributes to establishing the presence and degree of experimental control for a study.

What is shaping (in detail) and when would it be appropriate to use it? Give a detailed example

- 5) How do various variables (e.g., the previous schedule of reinforcement, establishing operations and response effort) affect resistance to extinction?
- 6) What is differential reinforcement of low rates of behavior and what are the important things to consider when implementing it?
- 7) What is noncontingent reinforcement?

## Psych 288: Advanced Applied Behavior Analysis

Dr. Nicolson Adams

Fall 2010 Take Home Mid Term

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*You may use any source to gather information for your answers, including the text, journal articles, or other sources. Be sure to credit sources appropriately.*

*I have given an estimate of the length I think a good answer would be to help you determine how detailed your answers should be. This is just a guide – you may write a fabulous answer that is either longer or shorter than what I've suggested. Keep in mind that in a take home format, nothing is assumed (if you don't say it or explain it thoroughly, I will assume you don't know it), however, parsimony indicates a well understood and well written answer. Longer isn't better. Good answers will be complete and succinct.*

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1. What is science, its basic characteristics and goals? What are the overarching attitudes of science? (2 paragraphs)
2. How does Applied Behavior Analysis fit into a framework of science and its overarching goals. (1 paragraph) How does the World Hypothesis of contextualism fit ABA? What arguments have been made to support this point? Discuss in terms of the basic characteristics of contextualism and the defining characteristics of ABA. (2-3 paragraphs)
3. What is the three-term contingency and why is it described as the “basic unit of analysis in the analysis of operant behavior”? Use the expanded model to account for a real example of a complex unit of behavior (see the expanded model below). (1-2 paragraphs)
4. Why is the individual subject of central importance in applied behavior analysis? Do not be brief with this answer – explain in terms of what single subject analysis are (as opposed to case studies) and explain what kind of analysis they allow, why they are appropriate – when and why they are most suited for some types of research questions. Discuss the appropriate use of group and single subject designs (briefly this time) – and address the criticism that the results from single subject designs cannot generalize to larger samples. (1 page)
5. In terms of Pepper's world hypotheses, why is arguing single-subject design against group design on a fundamental basis an inherently flawed and useless argument? What would a productive line of discussion instead entail? (2 paragraphs)
6. Explain the difference between a technique and a principle. (1 paragraph) Categorize the following and provide rationale for why each term should fall under the heading of either “technique” or “principle” (or both). (1/2 page more)
  1. Task analysis
  2. Reinforcement & punishment
  3. Shaping
  4. Errorless learning
  5. Behavioral contingencies
  6. Functional analysis
  7. Extinction
  8. Discrete trial training

9. Behavioral momentum
10. Premack principle

Psychology 288: Advanced Applied Behavior Analysis  
Fall 2008  
Dr. Adams

### ***Take Home Final***

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*The final is due on the last day of class Dec 10<sup>th</sup>. It must be typed. You may email it to me by 10:00 on the 10<sup>th</sup> or turn in a hard copy in class.*

*You may use any source to gather information for your answers, including the text, *About Behaviorism*, journal articles, or other sources. Be sure to credit sources appropriately.*

*I have given an estimate of the length I think a good answer would be to help you determine how detailed your answers should be. This is just a guide – you may write a fabulous answer that is either longer or shorter than what I've suggested. Keep in mind that in a take home format, nothing is assumed (if you don't say it or explain it thoroughly, I will assume you don't know it), however, parsimony indicates a well understood and well written answer. Longer isn't better. Good answers will be complete and succinct.*

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- a) The task that most people who work in schools, with any kind of behavioral background, regardless of position (teacher, school psychologist, SLP, behavior analyst), will be faced with is conducting a functional behavior assessment (FBA) and writing a behavior intervention plan (BIP). You may also be asked to implement, supervise and train staff on it. You may well be the consulting expert in your future positions. Give a complete summary of the steps and components this process contains. You may do this in outline form, but elaborate on an outline by including appropriate considerations for each step along the way. Be sure you use precise terminology (i.e., correct use of assessment versus analysis). (1 page)
- b) Many schools and agencies arrange for one day workshops on functional assessment. Discuss why this is or is not a good idea and how you would design a one day training if you had to do one. (2-3 paragraphs)
- c) If you were to explain to a parent or teacher why it is useful to approach a problem behavior from a functional standpoint, how would you go about it? Include not only the correct description and explanations but also clinical skills in approaching someone who may have a different point of view. (1/2 page – 2 paragraphs)
- d) Distinguish between methodological behaviorism and radical behaviorism. Use any resource to support your answer but include something from *About Behaviorism* as well. (1 page)

- e) Explain the difference between a technique and a principle. (1 paragraph) Categorize the following and provide rationale for why each term should fall under the heading of either ‘technique’ or ‘principle’ (or both). (1/2 page more)

11. Task analysis
12. Reinforcement & punishment
13. Shaping
14. Errorless learning
15. Behavioral contingencies
16. Functional analysis
17. Extinction
18. Behavioral function
19. Chaining
20. Discrete trail training
21. Behavioral momentum
22. Rule governed behavior

- a. What is rule-governed behavior? Distinguish RGB and operant conditioning. (2-3 paragraphs)
- b. There are three parts to this question: 1) Summarize key points that provide some foundation for understanding Verbal Behavior. 2) Do the same for Relational Frame Theory. 3) Compare and contrast the two points of view. (4 paragraphs)
- c. Provide supporting statements for ONE of the for one of the following criticisms:
  - Radical behaviorism is a primitive philosophy from an empirical science that has not reached full postulates especially when describing complex human behavior, or,
  - The linear and casual philosophy of radical behaviorism is out of step with other philosophical systems of science. (1 paragraph)

*You can use your answer to the study question – probably will need to elaborate on your original answer to get full points on the question for the purposes of the final exam.*

Bonus:

What was your favorite thing that you learned in class? (or one of them...so many to choose from 😊)  
This could be a applied technique, a quote or a theoretical assumption. It can be precise (like implementing a FBA) – or general (uses of ACT). Provide a good explanation for your answer.  
*You will receive between 0 and 10 bonus points. The grading on this question will be (necessarily) fairly subjective. The more you connect your answer to a reason that really makes sense (application to real world issues, effects for practice, influencing one’s approach to science or psychology) the more points you will receive.*