

## College of Education and Human Development Division of Special Education and disAbility Research

Spring 2014 EDSE 619 697: Applied Behavior Analysis: Principles, Procedures, and Philosophy CRN: 21308, 3 - Credits

| Instructor: Dr. Kristy Park  | <b>Meeting Dates:</b> 01/15/14 - 04/09/14 |
|------------------------------|---|
| <b>Phone:</b> 7039935251     | Meeting Day(s): Wednesday                 |
| E-Mail: kparkc@gmu.edu       | <b>Meeting Time(s):</b> 9:00 am-12:30 pm  |
| Office Hours: By appointment | Meeting Location: OCL                     |

**Note:** This syllabus may change according to class needs. Students will be advised of any changes immediately through George Mason e-mail and/or through Blackboard.

#### **Course Description**

Focuses on basic principles and procedures of applied behavior analysis; identification of factors that contribute to behavioral problems and improved performance; and procedures that can be used to minimize behavioral problems, improve performance, teach new behaviors, and increase probability of behaviors occurring under appropriate circumstances.

**Prerequisite(s):** Admission to applied behavior analysis graduate certificate program

Co-requisites: None

#### **Advising Contact Information**

Please make sure that you are being advised on a regular basis as to your status and progress through your program. Mason M.Ed. and Certificate students should contact the Special Education Advising Office at (703) 993-3670 for assistance. All other students should refer to their faculty advisor.

## **Nature of Course Delivery**

Park - EDSE 619 697: Spring 2014

Learning activities include the following:

- 1. Class lecture and discussion
- 2. Application activities
- 3. Small group activities and assignments
- 4. Video and other media supports
- 5. Research and presentation activities
- 6. Electronic supplements and activities via Blackboard

#### **Learner Outcomes**

Upon completion of this course, students will:

• Describe educational, experiential, degree, and examination requirements for Behavior Analyst Certification.

- Define, describe, and identify basic philosophical assumptions of applied behavior analysis.
- Define, describe, and identify basic characteristics of applied behavior analysis.
- Define, describe, and identify respondent behavior and respondent conditioning.
- Define, describe, and identify operant behavior and operant conditioning.
- Define, describe, and exemplify operant and respondent principles.
- Define, describe, and exemplify operant and respondent procedures.
- Describe, identify, and exemplify behavior analytic teaching procedures.
- Describe and identify factors affecting behavioral variables.

#### **Required Textbooks**

Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). Applied behavior analysis (2nd ed.). Upper Saddle River, NJ: Prentice Hall

Skinner, B.F. (1974). About behaviorism. New York, NY: Knopf

## **Digital Library Option**

The Pearson textbook(s) for this course <u>may be</u> available as part of the George Mason University Division of Special Education and disAbility Research Digital Library. Please note that not all textbooks are available through this option. Visit the links below before purchasing the digital library to ensure that your course(s) text(s) are available in this format. The division and Pearson have partnered to bring you the Digital Library; a convenient, digital solution that can save you money on your course materials. The Digital Library offers you access to a complete digital library of <u>all Pearson textbooks</u> and MyEducationLabs used across the Division of Special Education and disAbility Research curriculum at a low 1-year or 3-year subscription price. Access codes are available in the school bookstore. Please visit <u>http://gmu.bncollege.com</u> and search the ISBN. To register your access code or purchase the Digital Library, visit:

http://www.pearsoncustom.com/va/gmu/digitallibrary/education/index.html

- 1 year subscription \$200 ISBN-13: 9781269541411
- 3 years subscription \$525 ISBN-13: 9781269541381
- Individual e-book(s) also available at the bookstore link above or at http://www.pearsoncustom.com/va/gmu/digitallibrary/education/index.html

#### **Recommended Textbooks**

None. However, if you wish to complete the extra optional, extra credit portion of the course, you will need to purchase a subscription to the BCBA Examination Study software, available through Behavior Development Solutions at <u>http://www.behaviordevelopmentsolutions.com/</u>

#### **Required Resources**

You will need to go to the Behavior Analyst Certification Board website (www.bacb.com), and download the Task List, the Guidelines for Responsible Conduct, and the Disciplinary Standards. We will refer to these documents throughout this course and all others in this program.

#### **Additional Readings**

None

#### **Course Relationships to Program Goals and Professional Organizations**

This course is part of the George Mason University, Graduate School of Education (GSE), Special Education Program for Applied Behavior Analysis Graduate Certificate. This program complies with the standards for teacher licensure established by the Council for Exceptional Children (CEC), the major special education professional organization. The CEC Standards are listed on the following website:

http://www.cec.sped.org/Content/NavigationMenu/ProfessionalDevelopment/ProfessionalStanda rds/ . The content of the courses in this program is derived from the Task List published by the national Behavior Analyst Certification Board (BACB) as well as the Board's Guidelines for Responsible Conduct. The BACB Standards are listed on the following website: For more information on the Board and the examination, please visit the Board's website at www.bacb.com. The CEC standard that will be addressed in this class is Standard 4: Instructional Strategies.

#### **GMU POLICIES AND RESOURES FOR STUDENTS:**

a. Students must adhere to the guidelines of the George Mason University Honor Code [See <u>http://oai.gmu.edu/honor-code/</u>].

b. Students must follow the university policy for Responsible Use of Computing [See <a href="http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/">http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/</a>].

c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.

d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <u>http://caps.gmu.edu/</u>].

e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <u>http://ods.gmu.edu/</u>].

f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <u>http://writingcenter.gmu.edu/</u>].

## **PROFESSIONAL DISPOSITIONS**

Students are expected to exhibit professional behaviors and dispositions at all times.

## CORE VALUES COMMITMENT

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. [See <u>http://cehd.gmu.edu/values/]</u>

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <u>http://gse.gmu.edu/</u>]

## **Course Policies & Expectations**

Attendance.

Students are expected to be present for the duration of every class session, and to participate in class discussions and activities. Students entering class sessions more than 30 minutes late will not receive credit for that discussion. Students leaving a synchronous discussion prior to that discussion's end will not receive credit for that discussions or Research Profile presentations.

Late Work. All work is due during the week for which it is assigned, and must be submitted no later than 5:00 pm. Work submitted after the date assigned will be assessed a 10% point penalty.

#### **TaskStream Submission**

Every student registered for any Special Education course with a required performance-based assessment is required to submit this assessment, *Final Exam Feedback* to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete(IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

If you have never used TaskStream before, you MUST use the login and password information that has been created for you. This information is distributed to students through GMU email, so it is very important that you set up your GMU email. For more TaskStream information, go to <a href="http://cehd.gmu.edu/api/taskstream">http://cehd.gmu.edu/api/taskstream</a>

#### **Grading Scale**

The distribution of total possible points per assignment type, and grading scale, are as follows:

| Assignment                          | Points Possible<br>per Instance | Number of<br>Instances | Total Points<br>Possible | Points earned      |
|-------------------------------------|---------------------------------|------------------------|--------------------------|--------------------|
| 1. Discussion<br>Board Items        | 2 points per DB                 | 24 DB                  | 48 points                |                    |
| 2. Research Profile<br>Paper        | 25 points per<br>paper          | 1 paper                | 25 points                |                    |
| 3. Research Profile<br>Presentation | 10 points<br>per presentation   | 1 presentation         | 10 points                |                    |
| 4. SAFMEDS                          | 5 points                        | 12 sets                | 60 points                |                    |
| 5. Attendance and<br>Participation  | 1 point                         | 15 sessions            | 15 points                |                    |
| 6. Final Exam                       | 100 points per<br>Exam          | 1 Exam                 | 100 points               |                    |
|                                     |                                 |                        |                          | 258 total possible |

points

 $\label{eq:A} \begin{array}{l} A = 242 - 258 \text{ points} \\ A - = 241 - 232 \text{ points} \\ B = 231 - 206 \text{ points} \\ C = 205 - 180 \text{ points} \\ F < 179 \text{ points} \end{array}$ 

#### Assignments

## Performance-based Assessment (TaskStream submission required).

### <u>Final Exam</u>

The Final Examination is the Taskstream Assignment for this course. You will take a 50 multiple choice item final exam online. Once you open this exam, you must complete it – you may not close it and reopen it. You will have only one opportunity to complete this exam. You will earn 1 point toward your final grade for each correct response. You will also take this examination on your first night of class as a pretest. Using the exam in this way permits the instructor an evaluation of the extent to which the course objectives of were met. It also removes any mystery, for the students, as to what constitutes the final exam. You'll receive feedback on your pretest performance during the second or third class session, including a breakdown of percentage correct by content area. After completing the Final Exam, you'll receive a feedback form by e-mail which you will be required to then submit electronically to Taskstream. Once the feedback form's been submitted, it will be rated according to the following rubric with regard to the extent to which you've mastered the material as it pertains to the following sections from the BACB Task List. See appendix A

#### Performance-based Common Assignments (No TaskStream submission required). 2. Blackboard Discussion Board

For weeks indicated below, and in conjunction with readings from *About Behaviorism*, you will respond to the week's two Discussion Board Items. To respond, first do the assigned reading from About Behaviorism. Then, go to the Discussion Board Items for that week. Read the question, and respond to the question directly for one point. Then, on another day during the period for which the question is available, read the responses posted by your classmates, and respond to one or more of your classmates' posts for an additional point.

## 3. Research Profile.

This assignment will: 1) provide you experience using PsychInfo to conduct literature searches; 2) acquaint students with GMU library resources; 3) provide individual students with exposure to the behavior analytic literature; and 4) provide exposure to behavior analysis as a transcendent discipline and practice to the class. To do this assignment:

| Timothy R.       | Beth Sulzer-             | Gina Green       | Sigrid Glenn               | Edward Feeney   |
|------------------|--------------------------|------------------|----------------------------|-----------------|
| Vollmer          | Azaroff                  |                  |                            |                 |
| Kennon A. Lattal | Linda J. Hayes           | Alan Poling      | Jack Michael               | Gerald L. Shook |
| Mark Sundberg    | James Partington         | Judith E. Favell | Raymond G.<br>Miltenberger | Donald Baer     |
| Johnny Matson    | Thomas S.<br>Critchfield | Beatrice Barrett | Jon S. Bailey              | Linda LeBlanc   |
| Aubrey C.        | Julie S. Vargas          | R. Douglas Greer | Timothy D.                 | Lawrence E.     |
| Daniels          |                          |                  | Hackenberg                 | Fraley          |

1. Choose your author from the following list:

| Dennis H. Reid | Glen Dunlap | Charles Catania | Jay Moore      | Paul Touchette  |
|----------------|-------------|-----------------|----------------|-----------------|
| Murray Sidman  | James Todd  | Richard Kubina  | Abigail Calkin | Philip Hineline |

- 2. Once you have an author assignment, do a PsychInfo search for articles, chapters, and books written by the author. Conduct the list such that you not only get the references for the author's work, but also the abstracts.
- 3. Print the outcome of the search.
- 4. Read the abstracts.
- 5. Obtain several of the 5 of the articles, chapters, or books from the library, or through interlibrary lending. Read them.

- If the author is living, you can contact the author and, if the author is willing, interview the author, either by phone or by e-mail.

- 6. Prepare a written report in which you:
  - a. Identify the primary areas of study -type of work the author has done, and the populations considered
  - b. Summarize selected articles

- Describe notable themes found in the author's work.

- c. Discuss possible applications of the authors work to other populations or problems.
- d. Cite the articles, chapters, and/or books you read in preparing your report (using APA Sixth Edition style).

## 3. <u>Research Profile Presentation.</u>

Deliver your report in 15 minutes or less, leaving 2 minutes for questions or comments afterward, during one of the class sessions so indicated on the class schedule. Provide a one-page handout of the researcher's profile which includes primary areas of study and summary of notable themes found in the author's work

#### 4. SAFMEDS.

This word is an acronym for Say All Fast for a Minute Every Day Shuffled. Given a list of key vocabulary terms and concepts, you will be demonstrating mastery of these terms by completing the definition within the time allotted to help you develop fluent responding. Since fluency requires both accuracy and short latency to respond, fluent responding is superior to accurate responding. When you do these, what you'll learn to do is to not only get the answers right, but get them right quickly. This will greatly help you later in this course and in your subsequent behavior analysis courses. To demonstrate mastery, you'll respond to each card correctly, such that you complete the deck in 30 seconds or less. You'll get five points for each demonstration of mastery. There are 12 sets for a total of 60 points.

## 5. Attendance and Participation

Students are expected to be on time, attend the entire class session, and be ready to participate in class discussion and activities. An attendance sheet will be circulated in class within the first 10 minutes. Names on the list will be given 1 point for attendance.

Participation activities will be provided during class and cannot be made up after that class session.

### Other Assignments.

## Extra Credit

1. Completing the following Behavior Development Solutions modules:

- Definitions and Characteristics
- □ Principles, Procedures, and Concepts

and uploading proof of completion to Blackboard (under the Extra Credit tab) by 5:00 pm US Eastern Time on April 9, 2014 will earn 10 points of extra credit per certificate submitted. Information on purchasing a subscription to the Behavior Development Solutions Behavior Analyst Certification Exam study software can be found at www.behaviordevelopmentsolutions.com .

2. Go to the Autism Internet Modules at www.autisminternetmodules.org. Once there, create an account. (This is free of charge.) Completing the following modules:

Differential Reinforcement

□ Extinction

□ Prompting

□ Reinforcement

And then uploading proof of completion to Blackboard (under the Extra Credit Tab) by 5:00 pm US Eastern Time on April 9, 2014 will earn 5 points of extra credit per module completed.

#### Schedule

Throughout the following table, *ABA* refers to the Cooper, Heron, & Heward (2007) text, and *AB* to *About Behaviorism*.

| Date    | Topics                         | Assignments                             |
|---------|--------------------------------|---|
| 1/15/14 | Orientation to Applied         | Sign up for Research Profile            |
| Week 1  | Behavior Analysis, Behavior    |   |
|         | Analyst Certification, and the |   |
|         | GMU ABA Program;               |   |
|         | Syllabus Review                |   |
| 1/22/14 | Basic Philosophy and           | Read ABA Ch. 1 & 2, and AB Intro & Ch 1 |
| Week 2  | Terminology; Respondent        | Complete DB 1&2                         |
|         | Behavior and Respondent        | In class Safmeds demonstration- set 1   |
|         | Conditioning                   |   |
|         |                                |   |
| 1/29/14 | Operant behavior and operant   | Read ABA Ch. 11 & 12, and AB Ch 2       |
| Week 3  | conditioning; positive and     | Read ABA Ch. 14 & 15, and AB Ch 3       |
|         | negative reinforcement         | Complete DB 3&4                         |
|         |                                | In class Safmeds demonstration- set 2   |
|         |                                |   |
| 2/5/14  | Operant and Respondent         | Read ABA Ch 21, AB Ch 4                 |

|         | Extinction; Alternative<br>methods of producing<br>extinction effects | Complete DB 5&6,<br>In class Safmeds demonstration- set 3    |  |
|---------|---|--|--|
| 2/12/14 | Schedules of Reinforcement  | Read ABA Ch. 13, and AB Ch. 5                                |  |
| Week 5  |   | Complete DB 7&8  |  |
|         |   | In class Safmeds demonstration- set 4                        |  |
| 2/19/14 | Differential Reinforcement  | Read ABA Ch. 22, and AB Ch. 6                                |  |
| Week 6  |   | Complete DB 9&10   |  |
|         |   | In class Safmeds demonstration- set 5                        |  |
| 2/26/14 | Online Modules- Motivating  | Read ABA Ch. 16, and AB Ch. 8                                |  |
| Week 7  | Operations  | Read ABA Ch. 17 and AB Ch 7                                  |  |
|         | Online Module - Antecedent  | Complete DB 11&12  |  |
|         | stimulus control of operant<br>behavior, stimulus                     |  |  |
|         | generalization, and response  |  |  |
|         | generalization, and response  |  |  |
| 3/5/14  | Instructions; Prompting, fading                                       | Read AB Ch. 9  |  |
| Week 8  | Discrimination and  | Read ABA Ch 18, AB Ch. 10                                    |  |
|         | Conditional Discrimination  | Complete DB 13&14  |  |
|         |   | In class Safmeds demonstration- set 6 and 7                  |  |
| 3/12/14 | Happy Spring Break  |  |  |
| 3/19/14 | Instructions, Compliance,   | Read <i>ABA</i> Ch 19 and 20, <i>AB</i> Ch. 11               |  |
| Week 9  | Shaping, and Chaining   | Complete DB 15&16  |  |
| 2/26/14 |   | In class Safmeds demonstration- set 8                        |  |
| 3/26/14 | Stimulus Equivalence  | Read AB Ch 13 & 14   |  |
| Week 10 | Behavioral Contracting, Token   | Read <i>ABA</i> Ch 26, <i>AB</i> Ch. 12<br>Complete DB 17&18 |  |
|         | Economies, and Group<br>Contingencies                                 | In class Safmeds demonstration- set 9                        |  |
|         | Contingencies   | In class Samieus demonstration- set 9                        |  |
| 4/2/14  | Who's who in Behavior   | Complete DB 19&20  |  |
| Week 11 | Analysis  | In class Safmeds demonstration- set 10                       |  |
|         |   | <b>Research Profile Presentations</b>                        |  |
|         |   | Research Profile Paper due                                   |  |
| 4/9/14  | Course evaluation   | Complete DB 21&22  |  |
| Week 12 | Final Exam  | In class Safmeds demonstration- set 12                       |  |

# Appendix

|                                     | Does Not Meet Expectations<br>1   | Meets Expectations<br>2  | Exceeds Expectations<br>3   |
|-------------------------------------|---|--|---|
| Specific Behavior Change Procedures | <ul> <li>Candidate demonstrates further<br/>learning needed by answering<br/>fewer than 80% of items correctly<br/>pertaining to:</li> <li>Use interventions based on<br/>manipulation of antecedents,<br/>such as motivating operations<br/>and discriminative stimuli.</li> <li>Use discrimination training<br/>procedures.</li> <li>Use instructions and rules.</li> <li>Use contingency contracting<br/>(i.e., behavioral contracting).</li> <li>Use independent,<br/>interdependent, and<br/>dependent group<br/>contingencies.</li> <li>Use stimulus equivalence<br/>procedures.</li> <li>Plan for behavioral contrast<br/>effects.</li> <li>Use the matching law and<br/>recognize factors influencing<br/>choice.</li> <li>Arrange high-probability<br/>request sequences.</li> <li>Use the Premack Principle.</li> <li>Use the Premack Principle.</li> <li>Use errorless learning<br/>procedures.</li> <li>Use matching-to-sample<br/>procedures.</li> </ul> | <ul> <li>Candidate demonstrates<br/>competence by correctly<br/>answering 80 – 99% of questions<br/>pertaining to:</li> <li>Use interventions based on<br/>manipulation of antecedents,<br/>such as motivating operations<br/>and discriminative stimuli.</li> <li>Use discrimination training<br/>procedures.</li> <li>Use instructions and rules.</li> <li>Use contingency contracting<br/>(i.e., behavioral contracting).</li> <li>Use independent,<br/>interdependent, and<br/>dependent group<br/>contingencies.</li> <li>Use stimulus equivalence<br/>procedures.</li> <li>Plan for behavioral contrast<br/>effects.</li> <li>Use the matching law and<br/>recognize factors influencing<br/>choice.</li> <li>Arrange high-probability<br/>request sequences.</li> <li>Use the Premack Principle.</li> <li>Use pairing procedures to<br/>establish new conditioned<br/>reinforcers and punishers.</li> <li>Use matching-to-sample<br/>procedures.</li> </ul> | <ul> <li>Candidate demonstrates<br/>mastery by responding</li> <li>correctly to 100% of questions<br/>pertaining to:</li> <li>Use interventions based on<br/>manipulation of<br/>antecedents, such as<br/>motivating operations and<br/>discriminative stimuli.</li> <li>Use discrimination training<br/>procedures.</li> <li>Use instructions and rules.</li> <li>Use contingency<br/>contracting (i.e.,<br/>behavioral contracting).</li> <li>Use independent,<br/>interdependent, and<br/>dependent group<br/>contingencies.</li> <li>Use stimulus equivalence<br/>procedures.</li> <li>Plan for behavioral<br/>contrast effects.</li> <li>Use the matching law and<br/>recognize factors<br/>influencing choice.</li> <li>Arrange high-probability<br/>request sequences.</li> <li>Use the Premack Principle.</li> <li>Use errorless learning<br/>procedures.</li> <li>Use ematching-to-sample<br/>procedures.</li> </ul> |

Appendix A: Taskstream Evaluation

|                        | Candidate demonstrates further learning  | Candidate demonstrates competence by   | Candidate demonstrates mastery by  |
|------------------------|--|--|--|
|                        | needed by answering correctly fewer  | answering correctly 80 – 99% of  | responding correctly to 100% of  |
|                        | <ul><li>than 80% of questions pertaining to:</li><li>Lawfulness of behavior.</li></ul>   | <ul><li>questions pertaining to:</li><li>Lawfulness of behavior.</li></ul>               | <ul><li>questions pertaining to:</li><li>Lawfulness of behavior.</li></ul> |
|                        | <ul> <li>Selectionism.</li> </ul>  | <ul> <li>Selectionism.</li> </ul>  | <ul> <li>Selectionism.</li> </ul>  |
|                        | <ul> <li>Determinism.</li> </ul>   | <ul> <li>Determinism.</li> </ul>   | <ul><li>Determinism.</li></ul>   |
|                        | <ul> <li>Empiricism.</li> </ul>  | <ul> <li>Empiricism.</li> </ul>  | <ul> <li>Empiricism.</li> </ul>  |
|                        | <ul> <li>Parsimony.</li> </ul>   | <ul> <li>Parsimony.</li> </ul>   | <ul> <li>Parsimony.</li> </ul>   |
|                        | <ul> <li>Pragmatism.</li> </ul>  | <ul> <li>Pragmatism.</li> </ul>  | <ul> <li>Pragmatism.</li> </ul>  |
|                        | <ul> <li>Environmental (as opposed to</li> </ul>   | <ul> <li>Environmental (as opposed to</li> </ul>   | <ul> <li>Environmental (as opposed to</li> </ul>                           |
|                        | mentalistic) explanations of   | mentalistic) explanations of   | mentalistic) explanations of   |
|                        | behavior.  | behavior.  | behavior.  |
|                        | <ul> <li>Distinguish between radical and</li> </ul>                                      | <ul> <li>Distinguish between radical and</li> </ul>                                      | <ul> <li>Distinguish between radical and</li> </ul>                        |
|                        | methodological behaviorism.  | methodological behaviorism.  | methodological behaviorism.  |
|                        | <ul> <li>Distinguish between the</li> </ul>  | <ul> <li>Distinguish between the conceptual</li> </ul>                                   | <ul> <li>Distinguish between the</li> </ul>                                |
|                        | conceptual analysis of behavior,   | analysis of behavior, experimental   | conceptual analysis of behavior  |
|                        | experimental analysis of behavior,   | analysis of behavior, applied  | experimental analysis of   |
|                        | applied behavior analysis, and   | behavior analysis, and behavioral  | behavior, applied behavior   |
|                        | behavioral service delivery.   | service delivery.  | analysis, and behavioral service   |
|                        | <ul> <li>Define and provide examples of:</li> </ul>                                      | <ul> <li>Define and provide examples of:</li> </ul>                                      | delivery.  |
|                        | <ul> <li>Behavior, response, response</li> </ul>   | <ul> <li>Behavior, response, response</li> </ul>   | <ul> <li>Define and provide examples</li> </ul>                            |
|                        | class  | class  | of:  |
|                        | <ul> <li>Environment, stimulus, stimulus</li> </ul>                                      | <ul> <li>Environment, stimulus, stimulus</li> </ul>                                      | • Behavior, response, response   |
|                        | class  | class  | class  |
|                        | • Stimulus equivalence   | • Stimulus equivalence   | • Environment, stimulus,   |
|                        | • Reflexive relations (US-UR)  | • Reflexive relations (US-UR)  | stimulus class   |
|                        | • Respondent conditioning (CS-   | • Respondent conditioning (CS-   | • Stimulus equivalence   |
|                        | CR)  | CR)  | • Reflexive relations (US-UR)  |
|                        | • Operant conditioning   | • Operant conditioning   | • Respondent conditioning (CS  |
| Foundational Knowledge | <ul> <li>Respondent-operant interactions</li> <li>Unconditioned reinforcement</li> </ul> | <ul> <li>Respondent-operant interactions</li> <li>Unconditioned reinforcement</li> </ul> | <ul><li>CR)</li><li>Operant conditioning</li></ul>                         |
| led                    | G  | <ul> <li>Onconditioned reinforcement</li> <li>Conditioned reinforcement</li> </ul>       | <ul> <li>Operant conditioning</li> <li>Respondent-operant</li> </ul>       |
| [M                     | <ul> <li>Conditioned reinforcement</li> <li>Unconditioned punishment</li> </ul>          | <ul> <li>O Unconditioned punishment</li> </ul>   | interactions   |
| , juc                  | <ul> <li>Conditioned punishment</li> </ul>   | <ul> <li>Conditioned punishment</li> </ul>   | <ul> <li>Unconditioned reinforcement</li> </ul>                            |
| IK                     | <ul> <li>Schedules of reinforcement and</li> </ul>                                       | <ul> <li>Schedules of reinforcement and</li> </ul>                                       | <ul> <li>Onditioned reinforcement</li> </ul>                               |
| na                     | punishment   | punishment   | <ul> <li>Unconditioned punishment</li> </ul>                               |
| tio                    | • Extinction   | <ul> <li>Extinction</li> </ul>   | <ul> <li>Conditioned punishment</li> </ul>                                 |
| da                     | <ul> <li>Automatic reinforcement and</li> </ul>  | <ul> <li>Automatic reinforcement and</li> </ul>  | <ul> <li>Schedules of reinforcement</li> </ul>                             |
| un                     | punishment   | punishment   | and punishment   |
| Fo                     | <ul> <li>Stimulus control</li> </ul>   | • Stimulus control   | • Extinction   |
|                        | • Multiple functions of a single   | • Multiple functions of a single   | <ul> <li>Automatic reinforcement and</li> </ul>                            |
|                        | stimulus   | stimulus   | punishment   |
|                        | <ul> <li>Unconditioned motivating</li> </ul>   | <ul> <li>Unconditioned motivating</li> </ul>   | <ul> <li>Stimulus control</li> </ul>                                       |
|                        | operations   | operations   | <ul> <li>Multiple functions of a single</li> </ul>                         |
|                        | <ul> <li>Conditioned motivating</li> </ul>   | <ul> <li>Conditioned motivating</li> </ul>   | stimulus   |
|                        | operations   | operations   | <ul> <li>Unconditioned motivating</li> </ul>                               |
|                        | <ul> <li>Transitive, reflexive, surrogate</li> </ul>                                     | <ul> <li>Transitive, reflexive, surrogate</li> </ul>                                     | operations   |
|                        | motivating operations  | motivating operations  | <ul> <li>Conditioned motivating</li> </ul>                                 |
|                        | <ul> <li>Distinguish between</li> </ul>  | <ul> <li>Distinguish between</li> </ul>  | operations   |
|                        | discriminative stimulus and the  | discriminative stimulus and the  | o Transitive, reflexive, surrogat  |
|                        | motivating operation   | motivating operation   | motivating operations  |
|                        | • Distinguish between the  | • Distinguish between the  | • Distinguish between  |
|                        | motivating operation and   | motivating operation and   | discriminative stimulus and  |
|                        | reinforcement effects  | reinforcement effects  | the motivating operation   |
|                        | <ul> <li>Behavioral contingencies</li> <li>Contiguity</li> </ul>                         | <ul> <li>Behavioral contingencies</li> <li>Contiguity</li> </ul>                         | • Distinguish between the  |
|                        |  |  | motivating operation and<br>reinforcement effects                          |
|                        |  |  |  |
|                        | <ul> <li>Conditional discriminations</li> <li>Stimulus discrimination</li> </ul>         | <ul> <li>Conditional discriminations</li> <li>Stimulus discrimination</li> </ul>         | <ul> <li>Behavioral contingencies</li> <li>Contiguity</li> </ul>           |
|                        | <ul> <li>Stimulus discrimination</li> <li>Response generalization</li> </ul>             | <ul> <li>Response generalization</li> </ul>  | <ul> <li>Configury</li> <li>Functional relations</li> </ul>                |
|                        | <ul> <li>Stimulus generalization</li> </ul>  | <ul> <li>Stimulus generalization</li> </ul>  | <ul> <li>Conditional discriminations</li> </ul>                            |
|                        | <ul> <li>Behavioral momentum</li> </ul>  | <ul> <li>Behavioral momentum</li> </ul>  | <ul> <li>Stimulus discriminations</li> </ul>                               |
|                        | <ul> <li>Matching law</li> </ul>   | <ul> <li>Matching law</li> </ul>   | <ul> <li>Response generalization</li> </ul>                                |
|                        | <ul> <li>Contingency-shaped behavior</li> </ul>  | <ul> <li>Contingency-shaped behavior</li> </ul>  | <ul> <li>Stimulus generalization</li> </ul>                                |
|                        | <ul> <li>Rule governed behavior</li> </ul>   | <ul> <li>Rule governed behavior</li> </ul>   | <ul> <li>Behavioral momentum</li> </ul>                                    |
|                        |  |  | • Matching law   |
|                        |  |  | • Contingency-shaped behavior  |
|                        |  |  | <ul> <li>Rule governed behavior</li> </ul>                                 |
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|                        |  |  | Page 1   |

## Appendix