COMPREHENSIVE EXAMS GUIDELINES
MASTER'S IN APPLIED BEHAVIOR ANALYSIS

The following guidelines are for Applied Behavior Analysis Master's students who choose the comprehensive exams option. Students who do not write a thesis must pass comprehensive exams.

Comprehensive exams are offered two times per year: June and January. Comprehensive exams should be scheduled once a student has completed the core applied behavior analysis courses: Theory in Applied Behavior Analysis I and II (730.01/.02), practicum in Applied Behavior Analysis I and II (730.05/.06), and Psychology of Learning (730.00).

The exam will present five essay questions and students are required to answer all five questions. Each question targets a different content area. The content areas are derived from the BCBA task list (3rd Edition, http://www.bacb.com/index.php?page=100248). The following is a description of each question. See the Appendix to supplement this information.

1. **Designing and Evaluating Interventions.** In this question you will be asked to describe interventions for skill acquisition. You will also be asked to describe ways to evaluate an intervention. This question may also include system supports. BCBA Task lists:
   a. Behavior Change Procedures
   b. Selecting Intervention Outcomes and Strategies
   c. Experimental Evaluation of Interventions
   d. System Supports
2. **Theory and Practice of Applied Behavior Analysis.** This question will assess your understanding of the underpinnings of Applied Behavior Analysis. BCBA Task list:
   a. Definitions and Characteristics
3. **Measurement and Graphing.** This question will include some combination of being provided a graph and asked to interpret data, being given data and asked to construct a spreadsheet and graph(s) using Excel, describing how to measure behavior (including strengths and weaknesses of different measurements, e.g., event recording, interval recording) and calculate interobserver agreement. BCBA Task lists:
   a. Measurement of Behavior
   b. Displaying and Interpreting Behavioral Data
4. **Principles, processes, and concepts.** This question will assess your ability to define, give examples, and apply various principles/processes/concepts in Applied Behavior Analysis. BCBA Task list:
   a. Principles, Processes, and Concepts
5. **Behavioral Assessment and Functional Assessment.** This question will assess your ability to analyze behavioral assessment data and make treatment recommendations. You will be asked to summarize the results of assessment data, develop a function-based treatment. This question may also include a description of the strengths and weaknesses of different functional assessment components. BCBA Task lists:
   a. Behavioral Assessment
   b. Ethical Considerations

Each student's comprehensive exam will be scored by at least two raters. All questions will be scored on a 0.0 to 3.0 scale. A passing score is an average score of 2.0 or greater, with a score of 1.3 or greater on each specific question. If a student's scores do not qualify as passing and the two raters disagree by a score of 0.5 or greater, a third rater will be score the exam and all three raters will be considered in determining if the student has a passing score.

Students are allowed to take comprehensive exams a maximum of two times. If the exam is taken a second time, the second administration must be within in 1-year of the first attempt.

Appendix

Below are the BCBA task lists that will be covered on each comprehensive exam question. These lists come directly from the BCBA Task List (3rd edition), which can be downloaded at:
http://www.bacb.com/Downloadfiles/TaskList/207-3rdEd-TaskList.doc.

Question 1

CONTENT AREA 9: BEHAVIOR CHANGE PROCEDURES	
#	TASK
9-1	Use antecedent-based interventions, such as: contextual or ecological variables, establishing operations, and discriminative stimuli.
9-2	Use positive and negative reinforcement:
a.	Identify and use reinforcers.
b.	Use appropriate parameters and schedules of reinforcement.
c.	Use response-deprivation procedures (e.g., Premack principle).
d.	State and plan for the possible unwanted effects of the use of reinforcement.
9-3	Use positive and negative punishment:
a.	Identify and use punishers.
b.	Use appropriate parameters and schedules of punishment.
c.	State and plan for the possible unwanted effects of the use of punishment.
9-4	Use extinction.
a.	Identify possible reinforcers maintaining behavior and use extinction.
b.	State and plan for the possible unwanted effects of the use of extinction.
9-5	Use response-independent (time-based) schedules of reinforcement.
9-6	Use differential reinforcement.
9-7	Use discrimination training procedures.
9-8	Use prompt and prompt fading.
9-9	Use instructions and rules.
9-10	Use modeling and imitation.
9-11	Use shaping.
9-12	Use chaining.
9-13	Use incidental teaching techniques.
9-14	Use Direct Instruction.
9-15	Use precision teaching.
9-16	Use personalized system of instruction (PSI).
9-17	Use discrete trials.
9-18	Use contingency contracting (e.g., behavioral contracts).
9-19	Use token economy procedures, including levels systems.
9-20	Use independent, interdependent and dependent group contingencies.
9-21	Use stimulus equivalence procedures.
9-22	Plan for behavioral contrast effects.
9-23	Use behavioral momentum.
9-24	Use the matching law and recognize factors influencing choice.
9-25	Use language acquisition programs that employ Skinner's analysis of verbal behavior (i.e., echoics, mands, tacts, intraverbals).
9-26	Use language acquisition/communication training procedures.
9-27	Use self-management strategies.
9-28	Use behavior change procedures to promote stimulus and response generalization.

9-29	Use behavior change procedures to promote maintenance.

CONTENT AREA 8: SELECTING INTERVENTION OUTCOMES AND STRATEGIES	
#	**TASK**
8-1	Conduct a task analysis.
8-2	Make recommendations to the client regarding target outcomes based upon such factors as: client preferences, task analysis, current repertoires, supporting environments, constraints, social validity, assessment results and best available scientific evidence.
8-3	State target intervention outcomes in observable and measurable terms.
8-4	Make recommendations to the client regarding intervention strategies based on such factors as: client preferences, task analysis, current repertoires, supporting environments, constraints, social validity, assessment results and best available scientific evidence.
8-5	Make recommendations to the client regarding behaviors that must be established, strengthened, and/or weakened to attain the stated intervention outcomes.
8-6	When a behavior is to be weakened, select an acceptable alternative behavior to be established or strengthened.
8-7	Determine and make environmental changes that reduce the need for behavior analysis services.
8-8	Identify the contingencies governing the behavior of those responsible for carrying out behavior change procedures and design interventions accordingly.

CONTENT AREA 5: EXPERIMENTAL EVALUATION OF INTERVENTIONS	
#	**TASK**
5-1	Systematically manipulate independent variables to analyze their effects on treatment.
a.	Use withdrawal designs.
b.	Use reversal designs.
c.	Use alternating treatments (i.e., multi-element, simultaneous treatment, multiple or concurrent schedule) designs.
d.	Use changing criterion design.
e.	Use multiple baseline designs.
5-2	Identify and address practical and ethical considerations in using various experimental designs.
5-3	Conduct a component analysis (i.e., determining effective component(s) of an intervention package).
5-4	Conduct a parametric analysis (i.e., determining effective parametric values of consequences, such as duration or magnitude).

CONTENT AREA 10: SYSTEMS SUPPORT	
#	**TASK**
10-1	Use competency-based training for persons who are responsible for carrying out behavioral assessment and behavior change procedures.
10-2	Use effective performance monitoring and reinforcement systems.
10-3	Design and use systems for monitoring procedural integrity.
10-4	Establish support for behavior analysis services from persons directly and indirectly involved with these services.
10-5	Secure the support of others to maintain the clients' behavioral repertoires in their natural settings.
10-6	Provide behavior analysis services in collaboration with others who support and/or provide services to one's clients.

Question 2

CONTENT AREA 2: DEFINITION AND CHARACTERISTICS	
#	TASK
2-1	Explain and behave in accordance with the philosophical assumptions of behavior analysis, such as the lawfulness of behavior, empiricism, experimental analysis, and parsimony.
2-2	Explain determinism as it relates to behavior analysis.
2-3	Distinguish between mentalistic and environmental explanations of behavior.
2-4	Distinguish among the experimental analysis of behavior, applied behavior analysis, and behavioral technologies.
2-5	Describe and explain behavior, including private events, in behavior analytic (non-mentalistic) terms.
2-6	Use the dimensions of applied behavior analysis (Baer, Wolf, & Risley 1968) for evaluating interventions to determine if they are behavior analytic.
2-7	Interpret articles from the behavior analytic literature.

Question 3

CONTENT AREA 6: MEASUREMENT OF BEHAVIOR	
#	**TASK**
6-1	Identify the measurable dimensions of behavior (e.g., rate, duration, latency, or inter-response times).
6-2	Define behavior in observable and measurable terms.
6-3	State the advantages and disadvantages of using continuous measurement procedures and sampling techniques (e.g., partial- and whole-interval recording, momentary time sampling).
6-4	Select the appropriate measurement procedure given the dimensions of the behavior and the logistics of observing and recording.
6-5	Select a schedule of observation and recording periods.
6-6	Use frequency (i.e., count).
6-7	Use rate (i.e., count per unit time).
6-8	Use duration.
6-9	Use latency.
6-10	Use inter-response time (IRT).
6-11	Use percent of occurrence.
6-12	Use trials to criterion.
6-13	Use interval recording methods.
6-14	Use various methods of evaluating the outcomes of measurement procedures, such as inter-observer agreement, accuracy, and reliability.

CONTENT AREA 7: DISPLAYING AND INTERPRETING BEHAVIORAL DATA	
#	**TASK**
7-1	Select a data display that effectively communicates quantitative relations.
7-2	Use equal-interval graphs.
7-3	Use Standard Celeration Charts (for BCBA only – excluded for BCaBA).
7-4	Use a cumulative record to display data.
7-5	Use data displays that highlight patterns of behavior (e.g., scatter plot).
7-6	Interpret and base decision-making on data displayed in various formats.

Question 4

CONTENT AREA 3: PRINCIPLES, PROCESSES AND CONCEPTS	
#	TASK
3-1	Define and provide examples of behavior/response/response class.
3-2	Define and provide examples of stimulus and stimulus class.
3-3	Define and provide examples of positive and negative reinforcement.
3-4	Define and provide examples of conditioned and unconditioned reinforcement.
3-5	Define and provide examples of positive and negative punishment.
3-6	Define and provide examples of conditioned and unconditioned punishment.
3-7	Define and provide examples of stimulus control.
3-8	Define and provide examples of establishing operations.
3-9	Define and provide examples of behavioral contingencies.
3-10	Define and provide examples of functional relations.
3-11	Define and provide examples of extinction.
3-12	Define and provide examples of generalization and discrimination.
3-13	Describe and provide examples of the respondent conditioning paradigm.
3-14	Describe and provide examples of the operant conditioning paradigm.
3-15	Define and provide examples of echoics and imitation.
3-16	Define and provide examples of mands.
3-17	Define and provide examples of tacts.
3-18	Define and provide examples of intraverbals.
3-19	Define and provide examples of contingency-shaped and rule governed behavior and distinguish between examples of each.

Question 5

CONTENT AREA 4: BEHAVIORAL ASSESSMENT	
#	TASK
4-1	State the primary characteristics of and rationale for conducting a descriptive assessment.
4-2	Gather descriptive data.
a.	Select various methods.
b.	Use various methods.
4-3	Organize and interpret descriptive data.
a.	Select various methods.
b.	Use various methods.
4-4	State the primary characteristics of and rationale for conducting a functional analysis as a form of assessment.
4-5	Conduct functional analyses.
a.	Select various methods.
b.	Use various methods.
4-6	Organize and interpret functional analysis data.
a.	Select various methods.
b.	Use various methods.

CONTENT AREA 1: ETHICAL CONSIDERATIONS	
#	TASK
1-1	Solicit or otherwise influence clients only through the use of truthful and accurate representations of intervention efficacy and one's professional competence in applied behavior analysis.
1-2	Practice within one's limits of professional competence in applied behavior analysis, and obtain consultation, supervision, training, or make referrals as necessary.
1-3	Maintain competence by engaging in ongoing professional development activities.
1-4	Obtain informed consent within applicable legal and ethical standards.
1-5	Assist the client with identifying life style or systems change goals and targets for behavior change that are consistent with:
a.	the applied dimension of applied behavior analysis (Baer, Wolf, & Risley 1968).
b.	applicable laws.
c.	the ethical and professional standards of the profession of applied behavior analysis.
1-6	Initiate, continue, modify, or discontinue behavior analysis services only when the risk-benefit ratio of doing so is lower than the risk-benefit ratio for taking alternative actions.
1-7	Identify and reconcile contingencies that compromise the practitioner - client covenant, including relationships among the practitioner, the client and other parties
1-8	Use the most effective assessment and behavior change procedures within applicable ethical standards taking into consideration the guideline of minimal intrusiveness of the procedure to the client.
1-9	Protect confidentiality.
1-10	Truthfully and accurately represent one's contributions and those of others to the practice, discipline and profession of applied behavior analysis.
1-11	Ensure that the dignity, health and safety of one's client are fully protected at all times.
1-12	Give preference to assessment and intervention methods that have been scientifically validated, and use scientific methods to evaluate those that have not yet been scientifically validated.