**BCaBA SYLLABUS**

**Course 4**

**Title: Application of ABA Techniques** **#ABA004**

**FOURTH QUARTER ACADEMIC SESSION [OCTOBER – DECEMBER 2018]**

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Clinical Director

Office Hours: Mon, Tue, Thu, Fri 11am – 12 pm and 3 pm – 3.30 pm; **by appointment only**

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Program Assistant/BCBA Intern

Office Hours: Mon – Fri 11 a.m. – 1 pm

**Class Hours**:

Fri: 4:00 pm – 7:00 pm [5:30-6:00pm=Break Sat: 9:00am – 6:00 pm [11:30 am-12noon & 4:30pm-5:00pm=Break]

**General Course Description and Purpose**

Applied Behavior Analysis is one of the most rapidly advancing areas of modern science. **Applied behavior analysis (ABA)** is the science of applying experimentally derived principles of behavior to improve socially significant behavior. ABA takes what we know about behavior and uses it to bring about positive change (Applied). Behaviors are defined in observable and measurable terms in order to assess change over time (Behavior). The behavior is analyzed within the environment to determine what factors are influencing the behavior (Analysis). Applied behavior is the third of the four domains of behavior analysis, the other three being behaviorism, experimental analysis of behavior and professional practice of behavior analysis. In order to be able to successfully practice as a behaviour analyst, in-depth knowledge of the principles of applied behavior analysis and its application to a wide array of clinical problems is paramount.Applied behavior analysis contributes to a full range of areas including: AIDS prevention,[" conservation of natural resources, education, gerontology, health and exercise, industrial safety, language acquisition, littering,medical procedures,parenting, seatbelt use,severe mental disorders,sports, and zoo management and care of animals. ABA-based interventions have gained recent popularity in the last 20 years as it relates to teaching students with autism spectrum disorders. During the course of training the teaching will cover the following major areas: [a] ethical considerations in behavior analysis [ b] definitions and characteristics & principles, processes and concepts [c] behavioural assessment & selecting intervention outcome strategies [d] experimental evaluation of interventions & displaying and interpreting data [e] behavior change procedures and systems support, implementation management and supervision [f] developmental disabilities/autism & African culture and belief systems, applied behaviour analysis [ABA] in DSM IV, Behavior analysis for sustainable societies, elements of organizational behavior management and rehabilitation studies-international classification of functioning, disability and health [ICF]

**Goal**

The goal of this course is to provide a solid understanding and foundation of the principles of applied behavior analysis relevant to clinical application, with emphasis on behavioural presentations, assessment and treatment.

**Course Objectives**

Upon completion of this course, students should understand the following aspects of applied behavior analysis and be able function effectively in African setting/environment.

* Client-Centered Responsibilities
* Identification of the Problem
* Measurement
* Assessment
* Make recommendations and selections regarding intervention strategies and treatment outcomes based on task analysis, client preferences, current repertoires, supporting environments, environmental social validity and resource constraints with due regard to the client’s cultural orientation
* Identify and address practical and ethical considerations when using experimental designs to demonstrate treatment effectiveness.
* Treatment plan implementation, management and supervision
* Experimental Design
* Behavior change considerations
* Specific Behavior Change Procedures
* Behavior Change Systems
* Explaining and behaving in accordance with the philosophical assumptions of behavior analysis:
* Basic definitions and provide examples of: behavior, response, response class, environment, stimulus and stimulus class, stimulus equivalence, respondent relations (US, UR), respondent conditioning (CS, CR) etc.
* Distinction between verbal and non-verbal operants
* Measurement Concepts and State the advantages and disadvantages of using continuous measurement procedures and discontinuous measurement procedures (e.g., partial- and whole-interval recording, momentary time sampling).Identify the measurable dimensions of behavior (e.g., rate, duration, latency, or inter-response times).Evaluate changes in level, trend, and variability etc. and above all
* International classification of functioning, disability and health, ABA in DSM IV, Developmental disability, Autism and African belief system, development and choice of culturally sensitive reinforcers/instructional materials, elements of organizational business management and impact of human behavior on the environment and vice versa
* Students will acquire the knowledge and the skill [following internship] required to pass the BCaBA examination

\*\*\*\*\*\*\* Regarding the qualifications and practical supervision requirements to write the BACB examination, students are advised to visit BACB.com website for clarification.

**SPECIFIC COURSE CONTENT REQUIREMENTS**

Coursework: Students must complete at least 10 classroom hours of undergraduate or graduate-level instruction (see Acceptable Course work below) in the flowing content areas for the number of hours specified:

[A] Discretionary --- 10 hrs

**OUTLINE**

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| 1 | Autism |
| 2 | Applied behaviour analysis [ABA] in DSM IV |
| 3 | Behavior analysis for sustainable societies- impact of environment on behavior and behavior on the environment. |
| 4 | Elements of organizational behavior management in African business environment |
| 5 | Rehabilitation studies-international classification of functioning, disability and health [ICF] |
| 6 | Advocacy and social networking |
| 7 | Development and selection of culturally sensitive reinforcers & resource materials |
| 8 | Elements of verbal behavior |
| 9 | Basic American Sign language |
| 10 | Development of IEP and Transition plans |
| 11 | Use of Verbal Behavior Milestones Assessment and Placement Program [VB-MAPP]- A language and social skills assessment program for children with autism or other developmental disabilities. |
| 12 | Use and interpretation of scale of independent behavior-revised [SIB-R] and Checklist of Adaptive Living Skills [CALS] |
| 13 | Use of Strategies for Teaching Based on Autism Research [STAR ] |
| 14 | Use of Functional Assessment and Curriculum for Teaching Everyday Routine [FACTER] |
| 15 | Picture ex-change communication systems [PECS] |

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|  | **CONTENT AREA**  **AND REQUIRED NUMBER OF CLASSROOM HOURS** | **Course 1**  **#**ABA001  **Title**:  Basic Principles of ABA | **Course 2**  ABA002  **Title:** Assessment in ABA | **Course 3**  **#**ABA003  **Title:** Advanced Techniques in ABA | **Course 4**  **#**ABA004  **Title:** Application of ABA Techniques | **Course 5**  **#**ABA005  **Title:** Higher Order II  Techniques in ABA | **Total**  **Hours for content area**  **(extra hours will be applied toward Discretionary** |
|  | Ethical considerations in behavior analysis | 10 | 5 |  |  |  | 15 hrs |
|  | Concepts and principles, processes and concepts | 45 |  |  |  |  | 45 hrs |
| Research method in Behavior Analysis | Measurement[including Analysis] |  | 10 |  |  |  | 10 hrs |
| Experimental Design |  | 5 |  |  |  | 5 hrs |
| Applied Behavior Analysis | Identification of problem and Assessment |  |  | 30 |  |  | 30 hrs |
| Fundamental Elements of Behavior Change & Specific Behavior Change Procedures |  | 15 | 30 |  |  | 45 hrs |
| Behavior Change Systems |  | 5 |  |  |  | 5 hrs |
| Intervention & Behavior Change Considerations |  | 5 |  |  |  | 5 hrs |
| Implementation, Management and Supervision |  |  | 5 |  |  | 5 hrs |
|  | Discretionary: Autism, DDs, African belief syst., development and selection of culturally sensitive reinforcers & resource materials | 5 |  |  | 10 |  | 15 hrs |
|  | TOTAL HOURS OF INSTRUCTIONS FOR COURSES | 60 | 45 | 65 | 10 |  | Total 180 |

**Format**

Course material will be presented in a lecture and discussion format.

**Required Texts**

* Students with autism: Characteristics and instructions – Jack Scott, Claudia Clark and Michael Brady-[Thomson Wadsworth].
* The Verbal Behavior approach: How to teach children with autism and related disorders. -- Mark Barbera, Tracy Rasmussen – Jessica Kingsley Publishers]
* Signing Exact English – Gerilee Gustanson, Esther Zawolkow [ Pulisher- Modern Signs Press Inc.]
* The picture Exchange Communication System – Training Manual – Lori Frost and Andy Bondy.

**Recommended Texts**

* Science and Human Behavior--- B. F. Skinner – New York: The free press(SHB}
* Pay for profit – Designing an organization-wide PERFORMANCE-BASED COMPENSATION SYSTEM – William B. Abernathy.

**Supplemental Resources**

* The Internet provides a number of web pages that can be found easily with a search engine.—JABA/JEAB: <http://seab.envmed.rocherter.edu/>. The Bhevaior Analyst: <http://www.abainternational.org/tbajournal/>: skinner foundation: <http://.bfskinner.org/home.html>
* Behavior management strategies and a curriculum for intensive behavioral treatment of autism – Ron Leaf & John McEachin---DRL Books
* VB-MAPP----Mark L. Sundberg, Ph. D
* SIB-R, ---- Bruininks, Weatherman and Hill. CALS-- ---- Bruininks and Lanny Morreau
* STAR & FACTER---- Joel Arick, Lauren Loos, Ruth Falco and David Krug.

**CALENDER, EXAMINATION AND GRADING SYSTEM**

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| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 28 | 29 | 30 | 31 |  |  |  | 25 | 26 | 27 | 28 | 29 | 30 |  |
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| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |  |  |  |  |  |

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| Key | Students registration and orientation |
| Key | End of course comprehensive examination |

* Four ‘mid-point tests’ monthly and four “main” exams quarterly and the final session comprehensive exam will assess your ability to master the course material.
* Material to be covered in ‘midpoint tests’ and weight of the individual exams: see below.
* The exams are in multiple choice formats. Each question will be assigned a certain time value.

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| **Test** | **Number of Questions** | **Time Allocated** |
| Week 1 | 15 | 15 Min |
| Week 2 | 15 | 15 Min |
| Week 3 | 15 | 15 Min |
| Week 4 | 15 | 15 Min |
| End of month test | 60 | 90 min |

* Every attempt possible will be made to phrase exam questions clear and unambiguous.
* Exams will focus on but may not be limited to the material that has been covered in class
* Exams will not be curved.
* During exams all electronic devices such as cell phones, laptop computers, walk-man, portable CD players, iPods, etc. are to be turned off and stowed away in bags that are stored in the back of the examination room. During exams students are further **NOT** allowed to wear caps or hats.
* Performance grades from each exam (except the final exam) will be posted using individual secret ID numbers on the day following examination days 1 to 4. The grades for the final exam and the final course grades will be communicated after the final exam.
* The final exam will be comprehensive
* A failing grade (“zero”) will be normally assigned for any missed exam. The only accepted exceptions are **documented** medical or family emergencies. **Make-up exams are not given**. Instead, in approved cases of a missed exam the course score will be averaged out of the remaining exams. Missing the final exam will result in the grade of “incomplete” and the student must complete the course within the academic sessions. Requirements for course completion may be to take (not retake!!) an exam that (usually the final exam) or to repeat the course.
* Re-take of exams will not be possible.

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| SECTIONS | COURSE CONTENT WILL BE TAUGHT WITHIN THE BACB FOUTH EDITION TASK LIST GUIDELINES |
| 1 | Client-Centered Responsibilities: Identification of the Problem Review records and available data (steps include ID client, receive request, ID referral problem, behavioral rating scales, checklists, interviews). Biological variables that may be affecting the client. Conducting a preliminary assessment of the client in order to identify the referral problem. Explain behavioral concepts using everyday language (lay terms). Description and explanation of behavior, including private events, in behavior analytic (non-mentalistic) terms. Provision of behavior analysis services in collaboration with others who support and/or provide services to one’s clients. Practice within one’s limits of professional competence in applied behavior analysis, and obtain consultation, supervision, training, or make referrals as necessary. Determination and making environmental changes that reduce the need for behavior analysis services. |
| 2 | Measurement Prerequisite skills. Selection of measurement system to obtain representative data given the dimensions of the behavior and the logistics of observing and recording. Selecting a schedule of observation and recording periods. Selection of a data display that effectively communicates quantitative relations. Evaluation of changes in level, trend, and variability. Evaluate temporal relations between observed variables (within & between sessions, time series). |
| 3 | Assessment: Define behavior in observable and measurable terms. Define environmental variables in observable and measurable terms. Designing individualized behavioral assessment procedures. Designing measurement of existing behavior-environment relations. Designing assessment procedures that alter environmental antecedents. Design of assessment procedures that alter environmental consequences. Design of assessment procedures that alter both environmental antecedents and consequences. Organize, analyze and interpret observed data. Make recommendations regarding behaviors that must be established, maintained, increased or decreased. Identify motivators (preference and choice assessments, observations). Conduct reinforcer assessments. Repeat assessments based on ongoing data evaluation. |
| 4 | Intervention: Prerequisite skills are detailed in Basic Skills, Behavior Change sections. Stating the desired intervention outcomes in observable and measurable terms. Identification of potential intervention strategies based on assessment results and the best available scientific evidence. Make recommendations and selections regarding intervention strategies and treatment outcomes based on: Task analysis, Salient preferences, Current repertoires, Supporting environments, environmental and resource constraints. Social validity. Identify and address practical and ethical considerations when using experimental designs to demonstrate treatment effectiveness. When a behavior is to be decreased, selecting an acceptable alternative behavior to be established or increased. Program for stimulus and response generalization. Program for maintenance. Select behavioral cusps as goals for intervention. Arrange instructional procedures to promote generative learning. Interpret and base decision-making on data displayed in various formats. |
| 5 | Implementation, Management and Supervision:  Provision for ongoing documentation of behavioral services. Identify the contingencies governing the behavior of those responsible for carrying out behavior change procedures and design interventions accordingly. Design and use competency-based training for persons who are responsible for carrying out behavioral assessment and behavior change procedures. Design and use effective performance monitoring and reinforcement systems. Design and use systems for monitoring procedural integrity. Provide supervision for behavior change agents. Evaluate the effectiveness of the program. Establish support for behavior analysis services from persons directly and indirectly involved with these services. Secure the support of others to maintain the clients’ behavioral repertoires in their natural settings. Arrange for the orderly termination of services once they are no longer required. |
| 6 | Basic Behavior Analytic Skills Measurement: Measure frequency (i.e., count). Measure rate (i.e., count per unit time). Measure duration. Measure latency. Measure inter-response time (IRT). Measure percent of occurrence. Measure trials to criterion. Determine the level of inter-observer agreement. Evaluate the accuracy and reliability of measurement procedures. Design, plot and interpret data using equal-interval graphs. Design, plot and interpret data using a cumulative record to display data. Design and implement discontinuous observational methods (e.g., partial & whole interval, momentary time sampling). Design and implement choice measures. Design and implement continuous observational measurement. Design and implement event records. Experimental Design. |
| 7 | The use of dimensions of applied behavior analysis (Baer, Wolf, & Risley 1968) for evaluating interventions to determine if they are behavior analytic. Review relevant literature and interpret articles from the behavior analytic literature. Systematically arranging independent variables to demonstrate their effects on dependent variables. Use withdrawal designs. Use reversal designs. Use of alternating treatments (i.e., multi-element, simultaneous treatment, multiple or concurrent schedule) designs. Use of changing criterion designs. Use multiple baseline designs. Use multiple probe designs. Use of combinations of design elements. Conduction of a component analysis (i.e., determining effective components of an intervention package). Conduction of a parametric analysis (i.e., determining effective parametric values of consequences, such as duration or magnitude). |
| 8 | Behavior Change Considerations: State and plan for the possible unwanted effects of reinforcement. State and plan for the possible unwanted effects of punishment. State and plan for the possible unwanted effects of extinction. Fundamental Elements of Behavior Change. Use positive and negative reinforcement. Use appropriate parameters and schedules of reinforcement. Use prompts and prompt fading. Use modeling and imitation. Use shaping. Use chaining. Use task analysis. Use discrete trials and free operant arrangements. Use verbal Operants as a basis for language assessment. Establish echoic stimulus control. Use mand training. Use tact training. Use intraverbal training. Use listener training. Use positive and negative punishment. Identify and use punishers. Use appropriate parameters and schedules of punishment. Use extinction. Use combinations of reinforcement, punishment & extinction. Use response-independent (time-based) schedules of reinforcement. Use differential reinforcement (e.g., DRH, DRA, DRI, DRL, DRO) |
| 9 | Specific Behavior Change Procedures: Use of interventions based on antecedents, such as: contextual or ecological variables, motivating operations, and discriminative stimuli, discrimination training procedures, instructions and rules, contingency contracting (e.g., behavioral contracts), interdependent and dependent group contingencies, stimulus equivalence procedures.  Planning for behavioral contrast effects, using the matching law and recognize factors influencing choice, arranging high and low probability request sequences to increase and decrease behavior, use of Premack principle, pairing procedures to establish new conditioned reinforcers (e.g., people, tokens, praise, activities), errorless learning procedures, matching to sample.  Behavior Change Systems: Use of self-management strategies, token economy procedures and other conditioned reinforcement systems (e.g., TAG Teach), direct Instruction, precision teaching, personalized system of instruction (PSI), incidental teaching techniques, functional communication training procedures, augmentative communication system.  The philosophical assumptions of behavior analysis:  Lawfulness of behavior, selectionism (phylogenic, ontogenic, cultural), determinism, empiricism, parsimony and pragmatism. Environmental explanations of behavior (as opposed to mentalistic). Distinguish between radical behaviorism, methodological behaviorism and structuralism. Distinguish among the conceptual analysis of behavior, experimental analysis of behavior, applied behavior analysis, and behavioral technologies. Definition examples of: Behavior, response, response class. Environment, stimulus and stimulus class. Stimulus equivalence. Respondent relations (US, UR. Respondent conditioning (CS, CR). Operant conditioning. Respondent - operant interactions. Unconditioned reinforcement. Conditioned reinforcement. Unconditioned punishment. Conditioned punishment. Schedules of reinforcement and punishment |
| 10 | Extinction, automatic contingencies (conditioning occurring in the absence of contrived contingencies), stimulus control (S-delta/S-, Sd/S+), multiple effects of a single stimulus, unconditioned, motivating operations, conditioned motivating operations transitive, reflexive, surrogate motivating operations distinguish between Sd & MO, distinguish between MO & reinforcement effects, behavioral contingencies. Contiguity, functional relations |
| 11 | Conditional discriminations, stimulus discrimination, response generalization, stimulus generalization, behavioral contrast, behavioral momentum, matching law. contingency-shaped behavior  Rule-governed behavior. Distinguish between verbal and non-verbal operants: echoics and imitation, mands, tacts, intraverbals  Measurement of Concepts: State the advantages and disadvantages of using continuous measurement procedures and discontinuous measurement procedures (e.g., partial- and whole-interval recording, momentary time sampling).Identify the measurable dimensions of behavior (e.g., rate, duration, latency, or inter-response times). Evaluate changes in level, trend, and variability. Evaluate temporal relations between observed variables (within & between sessions, time series). |
| ADDED SECTION  12 | International classification of functioning, disability and health, ABA in DSM IV, Developmental disability/ autism and African belief system, development and choice of culturally sensitive reinforcers/instructional materials, elements of organizational business management and impact of human behavior on the environment and vice versa. Picture Exchange Communication Systems, [PECS], Basic American Sign Language [ASL]. Interpretation of SIB-R, CALS, use of VB-MAPP, STAR, FACTER tools. |

NOTE: Curtsey of BACB.

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| **Exam** | **Content** |
| Exam 1 | MONTH 1 + MONTH 2 + MONTH 3 |
| Exam 2 | MONTH 4 + MONTH 5 + MONTH 6 |
| Exam 3 | MONTH 7 + MONTH 8 + MONTH 9 |
| Exam 4 | MONTH 10 + MONTH 11 + MONTH 12 |
| Final Exam | Comprehensive examination will cover the entire course content. |

The overall final course grade will be calculated as follows:

Weight of exams: Grading:

Quarterly Exam 1 20% A: > 89.5%

Quarterly Exam 2 20% B: 79.5% – 89.4%

Quarterly Exam 3 20% C: 69.5% – 79.4%

Quarterly Exam 4 20% F: <69.5%

Final Comprehensive Exam: 20%

**Course Policy on Attendance**

The general policy of International Training Center for Applied behavior Analysis’ policy regarding absences. International Training Center for Applied behavior Analysis – allows 20% absences per quarter during the program. The ‘twenty percent rule’ specifically includes unanticipated emergency leaves, for any reason, from the program.

* Students who have a persistent tendency to come late and thus disrupt the teaching process may be subject to notification to administration.
* Attendance will be taken daily. No student will fail the course purely based on lack of attendance. However; student should be aware that ITCF-ABA will have a close look at the attendance of those students whose final numerical grades are considered borderline between the grades C and F. Borderline students who have 80% or more of **recorded** class attendance may receive a passing grade. The same applies for the A/B and the B/C border.

**Rules of Conduct:** See Student Handbook for ITCT-ABA policy. The ITCF-ABA policy will be enforced

\*\*\*\* ITCF-ABA reserves the right to make necessary changes to the course work any time as deemed appropriate.

**Recording of Lectures:** Students are allowed to audiotape lectures. Institution’s policy prohibits videoing of lectures