ABAS-Ed.D. Ph.D.
For Incoming Fall 2009 Students

Teaching as Applied Behavior Analysis: A Strategic Science of Pedagogy and Curriculum Design
(Professor R. Douglas Greer Coordinator, and Professor Denise Ross)
(New York State Dual Certification Birth through Grade 6)

(Individuals accepted into the program should contact Dr. Dolleen Keohane at ddkeohane@aol.com immediately in order to coordinate your student teaching placement.)

Rationale
Our teacher preparation program is devoted to the practices of teaching as a science. We believe that education should be first driven by the needs of students and families in terms of their contribution and access to habilitative lifestyles through the application of the basic and applied sciences of behavior. Thus, what works for the individual student drives both pedagogical and curricular decisions. The state of the science in teaching as behavior analysis calls for expert identification of the appropriate strategies and tactics needed by each student in the continuum leading to their maximum achievement of recognized educational standards as well as scientifically identified functional repertoires. Research from related fields of cognitive psychology and health and behavior studies serve as additional resources for tactics that are then applied through behavior analytic teaching. We develop teachers who are strategic scientists of pedagogy and behavior change tactics. Our graduates provide measurably effective schooling for children and work with others to realize a research based systems approach to education (Greer, 2002). We prepare teachers who can provide state of the science instruction for students with and without disabilities. Our graduates are especially prepared to work with diverse populations and students who require expert instruction.

We provide our teacher trainees with data-based pedagogical tactics and curricular objectives that are supported by the research literature as the most effective tactics currently available. Teachers are taught to use their continuous measurement and graphic display of their students’ responses to instruction as the means to individualize all pedagogical tactics within classrooms containing students with diverse repertoires. The curricular materials are tied to the New York State Curricular Guidelines and the English Excellence in Education Standards, such that modules within “method” courses incorporate how to teach the objectives found in the state guidelines for children from pre-school through grade 6. The standards are recast and appended according to the research literature as functional repertoires associated with the four major subdivisions of curricula--academic literacy, self-management, problem solving, and an enlarged community of interests (conditioned reinforcers).

How
Graduates master the best practices from research that address the education and related problems including:

• Classroom management practices documented in the literature;
• Strategies and tactics from the applied and the basic sciences of behavior analysis shown to result in the achievement of functional educational outcomes in classrooms and in communities (Barrett et al., 1991; Becker, 1992; Bloom, 1968; Engelmann, 1991; Gardner et al., 1994; Keller, 1968; Mattaini & Thyer, 1996);
• Tested pedagogical and curricular components, including the analytical tools to identify the "best fit" research-based tactic that works for the uniqueness of the individual learner (i.e., errorless Teacher Performance Rate/Accuracy presentations) for the particular instruction in progress at the moment;
• Continuous direct measurement of the students’ responses to all instruction for each child.
• Selection and application of tested tactics for learning deficits using measures of learning and teaching along with individual applied research strategies to locate sources and solutions to learning and behavior problems. They choose those tactics from the more than 180 tactics from the research literature and analyses of the learn unit context. Different students require different tactics and the determination of which tactic to use at any given instructional decision point is based on continuous measurement of all instruction and the accurate use of a tested decision tree protocol. Our trainees are taught within an applied behavior analysis systems approach to education that has resulted in 4 to 7 times more learning than baseline and control operations (Greer, 1996b, Greer, 2002)).

There is a significant literature documenting the validity of the above procedures for a range of students who have been categorized, including 65 years of research in the basic science of behavior, 40 years of applied behavior analysis, and 21 years of research on the systemic application of teaching as a science to entire schools. Moreover there are several professional teaching schools (CABAS® Board Certified Schools) that employ the model and provide paid internships and postgraduate employment for 20-30 MA students and 5 to 10 Ph.D. students annually (we use the term Professional Teaching Schools, because our relationship is based on a science of schooling much like the teaching hospital that provide training settings based on evidence-based medical practice). Our graduates train in schools that apply the Comprehensive Application of Behavior Analysis to Schooling (see www.CABAS.com). The CABAS® model includes parent education and systems wide support for supervisors, administrators, psychologists, and teachers who function as strategic scientists of instruction. All instruction, student responses, critical supervisor and parent education responses are measured and tracked in graphic form weekly (over one million data points monthly across all of the schools). Thus, there is a scientific database and a demonstration database for our approach. We have been successful with schools for categorized students in this country, England, Ireland, and Italy (see Lamm & Greer, 1992). We have also replicated our model with students who are not categorized but who have histories of failure in non-scientifically-based approaches to education and high achieving students in music education (Greer, 1980). The research literature indicates that the procedures used in the model are equally applicable to all students and they have been found to have significant long-term benefits for students from low socio-economic communities (Becker, 1992).

The training of our teacher scientists and the development of state of the science Professional Teaching Schools occur in tandem. Our graduates master the application of
department and college-wide content in the CABAS® Teaching Schools and at the College. These teaching repertoires include mastery of the vocabulary of the science, fluent in-class teacher performance, and analytic repertoires for fitting the best scientifically based practice to the needs of individual students. Simultaneously, the public schools they train in function as state of the science centers of education that serve the needs of communities in CABAS® schools developed for and as a result of parent choice.

Outcomes

The knowledge base and applied competencies include the following:

- Competencies from modules in health and behavior, families, nutrition, violence prevention, connecting various community agencies, tactics from the literature on accelerated learning, deficit education, and education of persons with disabilities;
- Competencies in the application of research findings from the psychology of reading, mathematics, and related cognitive research findings, and new thrusts in educational psychology applied through behavior analytic strategies of measurement;
- Competencies in applied behavior analysis for measurement and intervention tactics, including practica experiences to teach teacher trainees to apply the practices fluently in the classroom and to use measurement and the learn-unit context to analyze teaching problems;
- Competencies from courses and modules that provide mastery of the delivery and simultaneous measurement of scientifically tested curricula for the target population including, for example, Direct Instruction reading and math curricula, Edmark Reading, Saxon math and reading curricula, the Morningside Generative Instruction curricula, and CABAS® materials in mathematics, writing, problem solving, self-management, problem solving. Our curricula provides data-based instruction for all of the curricular goals identified by the State of New York, the English Department of Educational Excellence, and the CABAS® self-management and problem solving curriculum;
- Competencies from course and modules in research based procedures for the delivery of individualized curriculum within classrooms that have wide variations in pupil skills (e.g., PSI, CABAS® independence hierarchy, trained tutoring, learner-controlled learn units);
- Competencies in functional repertoires of verbal behavior from early speaker repertoires through advanced problem solving and self-editing
- Competencies in applied behavior analysis research.
  Competency in the application of research findings with children is taught in professional teaching schools school in which groups of parents elected our approach (i.e., schools where the students' academic performance is below national norms, and programs for students with disabilities). Over the last 21 years we have developed CABAS® schools, and programs within the Boards of Education of New York City and New Rochelle, the Camden Borough (in London), Westchester (The Fred S. Keller School), Rockland County (The Rockland Middle School, Link Elementary School,
BOCES CABAS® Classes), OASI Early Intervention Classes in Sicily, the Dublin and Cork CABAS® Schools in Ireland, and the Jigsaw School in Surrey England. Our graduate students are trained in their teacher practica sites with New York State and CABAS® certified teachers and state certified supervisors who hold advanced CABAS® ranks. We use data from students, teachers, and teacher-trainees to continuously modify school procedures and to modify our training courses and experiences consistent with outcomes. Since the model is learner-data-driven and continuously involved with research and research applications, it is a scientifically replicable model. It is both individual learner-driven and systemic.

**Distinctiveness of the Program**

This is one of the first, if not the first, teacher preparation programs designed exclusively to apply scientific findings and procedures to schooling on a comprehensive basis for all children. The program is unique in that all of the teaching operations learned by the teachers are based on research. Moment-to-moment instruction requires continuous measurement and data analyses by the teacher-trainees, their mentors, and their university mentors. It is a program devoted to teaching our teachers to apply individualized instruction for: Non-categorized students in typical-sized classrooms (Buskist, Cush & de Grandpre, 1991), one-to one programs (e.g., our pre-speaker classes for children with autism diagnoses), and classrooms that integrate categorized and no-categorized students. We prepare teachers to use behavior change tactics fitted to individual needs, measurably effective teaching practices fitted to each individual learner, and to draw on interdisciplinary practices to attack the systemic problems of poverty and related health, educational, community, and family issues in schools that seek to prime a sense of community. We have a track record for doing so in schools for students with and without disabilities (Greer, 1991a; Greer, 1991b; Greer, 1994; Greer, McCorkle, & Williams, 1989).

**Quality**

Students selected for the program are academically talented (3.5 averages) from a variety of undergraduate programs. They are dedicated to teaching as a science and to teaching all children regardless of their presenting repertoires. The university faculty and the leaders of the professional training schools interview candidates for the program as part of the application process. The interview may be conducted by phone or email for students from other countries. The GRE is not required; however we do require the submission of a writing sample. Students accepted into the program have a variety of undergraduate majors ranging from majors in the liberal arts, the natural and social sciences and education. The program is rigorous and candidates will need excellent writing skills. The vocabulary of the science, applications of the science to classroom practice, and analytic repertoires are taught in the program. Candidates interested in therapy should seek to apply to behavior analytic clinical psychology programs. Our program is devoted to teaching regardless of whether the teaching occurs in schools or in other venues.

Graduates of the program are strategic scientists of instruction. As a condition of coursework and graduation they must meet rigorous standards and measurable competencies for performance in the classroom, university courses in behavior analysis, and research and analytic competencies. Graduates are sophisticated in using tactics
from the relevant sciences as well as in using applied behavior analysis to apply the
tactics to individual students. They are prepared to build a rigorous science of schooling
in the real world of day to day schooling and they are prepared to become community
change agents and to view the problems on a systemic basis. Graduates are in demand
throughout the world. Their work is presented at national scientific conferences and
published in refereed journals (35 research papers at the last national convention). There
is no need to bridge science, theory, and practice because our graduates are the bridge.
The Association for Behavior Analysis has approved our program as one that allows
students to sit for the national behavior analysis certification exam. In addition, the
achievement of CABAS® certification represents advanced residency certification of
behavior analytic teaching repertoires and graduate are eligible for application to the
CABAS® board for Teacher I and II ranks.

Centrality to The Mission of Teachers College

Teachers College was founded on the need that underlies this effort (See Butt’s
and Cremin's, History of Teachers College). The effort is centrally tied to urban
education issues, although similar tactics are needed as well in isolated rural areas and in
suburban schools. Our teacher-training program is a venture that has evolved out of the
natural shared interests and complementary scientific expertise of our department (Health
and Behavior Studies).

We offer an alternative and unique teacher training program that
supplements the existing approaches to teacher training at Teachers College.

We do not seek to replace existing teacher training programs that follow a
different philosophy (e.g., teaching as an art nor an eclectic approach to teaching).
Rather, the educational problems and needs in our communities are great enough to
support diverse and alternative approaches in the world’s largest and oldest graduate and
professional school of education. Our program provides a consistent epistemology for
specific educational targets.

Staffing

Our staff includes two professors who are specialists in teaching as applied
behavior analysis, professors in special education, adjunct clinical instructors who are
also teacher mentors at our professional teaching schools. Our program professors and
are internationally recognized and published scientists in behavior analysis, special
education, applied educational psychology, and health education. CABAS® certified
teachers, supervisors, and support staff at our professional teaching schools play a critical
role in the training of our graduates and they too are published scientists in behavior
analysis and education. In addition, the active participation of parents in the parent
education programs in our schools provide our graduates with direct contact with the
concerns and needs of parents who are viewed along with the children as our clients.

Facilities and Distance Learning Opportunities

Our program is involved with international efforts for teaching as a science. For
example we are involved in the development of model CABAS® schools in Ireland,
England and a related University programs at The National University of Ireland at
Maynooth, Cork, and Galway. Schools in Ireland, England, and other countries seek our
graduates, thus we serve both a local, national, and international need. These efforts provide and international perspective for our students, including opportunities to train and work in our international sites.
Part II
Core Courses and Cognates
Master of Arts Program in Teaching as Applied Behavior Analysis
(Approximately 45 Credit Hours. The specific number of hours is contingent on undergraduate preparation.)
(Certification in Regular and Special Education, and as Inclusion Specialist)

- Cognate I: Teaching as Applied Behavior Analysis, 24 Credits;
- Cognate II: Curricular and Instructional Tactics from Cognitive and Community Behavioral Sciences. 15 Credits,
- Cognate III: Curricula and Student Characteristics for Inclusion Classrooms (6 Credits)

COGNATE I: Teaching as Applied Behavior Analysis
(24 Credit Hours)

Level 1- Teaching Listener, Speaker, and Intellectual Foundations (Birth – Kindergarten NYSED Standards, English Excellence in Education Standards, and CABAS® Standards)

HBSE 4015: Applied Behavior Analysis I: Pedagogy, Curriculum, and Management (3 Credits)
HBSE 4044: Curricular and Pedagogical Foundations for Teaching Pre Listening Through Early Academic Literacy (2 Credits) Pedagogical and curricular design repertoires for realizing state and international educational objectives for children from pre listener to early reader skills (NYSED Standards, English Excellence in Education Standards, and CABAS® Standards Pre School Through Kindergarten)

HBSE 4704-Student Teaching and Observation (3 Credits)

HBSE 4015 provides pedagogical operations and HBSE 4044 provides curricular materials as they are wedded to the related pedagogy for individualizing instruction to students with diverse needs who range from Pre Speaker to Early Reader Repertoires and HBSE 4704 Provides the relevant field training to competency criteria that occurs simultaneously with the above coursework.

Level 2- Foundations of Literacy, Problem Solving, Self-Management and Enlarged Community of Interests (Grades 1-3 NYSED Standards, English Excellence in Education Standards, and CABAS® Standards)

HBSE 4016 Applied Behavior Analysis II: Pedagogy, Curriculum, and Management (3 Credits)
HBSE 4045 Curricular and Pedagogical Operations for Teaching the Foundations of Functional Academic Literacy (2 Credits). Pedagogical and curricular repertoires for realizing state educational and international educational objectives for children with early to advanced self-editing and self-management repertoires (grades 1 through 3)
HBSE 4704 Student Teaching and Observation (3 Credits)
HBSE 4016 provides pedagogical operations and HBSE 4045 provides curricular materials as they are wedded to the related pedagogy for the target students and HBSE 4704 Student Teaching and Observation (3 Credits) provides the relevant field training to competency criteria done concurrently with the above coursework.

Level 3- Advanced Academic Literacy, Self-Management, Problem Solving, and Expanded Community of Interests (Grades 4-6 and foundations of middle school NYSED Standards, English Excellence in Education Standards, and CABAS® Standards)

HBSE 4017 Applied Behavior Analysis III: School-Wide Systems Applications. Includes teacher leadership (teaching and monitoring teacher assistants, working with school psychologists and social workers), advanced analytic repertoires, parent communication and education strategies to generalize learning derived from a systems approach to schooling.
(3 Credits)

HBSE 4046 Curricular and Pedagogical Operations for Teaching Advanced Functional Academic Literacy (4th Grade through Early Middle School) (2 Credits). Pedagogical and curricular repertoires for realizing state and international educational objectives for children with early to advanced self-editing and self-management repertoires (grades 1 through 3)

HBSE 4704 Student Teaching and Observation (3 Credits) provides the relevant field training to competency criteria done concurrently with above coursework.

- Description of Field Experience

1 HBSE 4704 Internship in Teaching as Applied Behavior Analysis (9 Credits, 3 Each Term). Three Semesters each consisting of a minimum of 720 hours (unpaid practica) or 1,480 hours (paid Practica Experience) in CABAS® Teaching Schools and classrooms. The practica involve placements in classrooms for children with and without disabilities across the age span from birth through early middle school, and classrooms with students who need remedial instruction, and inclusion classrooms that have the range of students, and typically developing students. The practica are coordinated with the requirements of HBSE 4015, 4016, 4017, 4044, 4045, and 4046. The coordination of efforts in these courses and the other courses listed below result in the attainment of criterion-referenced competencies documented in the modules associated with the CABAS® board Certified Teacher Ranks (See Below). Students must attain the competencies specified in the modules. In some cases this may require a fourth term of HBSE 4704.

Cognate II: Scientifically-Based Curricular and Instructional Tactics from Cognitive and Community Behavioral Sciences (12 Credits)
Findings from the research in cognitive psychology, health education, and generic educational research concerned with reading, memory, problem solving, decision-making, and self-management.
HBSK4072 Theory and Techniques of Assessment and Intervention in Reading (3 Credits) (Professor Perin) (EC, MC, CH)
HUDK 4027 Development of Mathematical Thinking (3 Credits) (Professor Ginsberg) (EC, MC, CH) or alternative course in Methods in Mathematics
HBSK 4074 Reading and Comprehension Strategies and Study Skills (3 Credits) (Professor Peverly) (MC, CH)
HBSS 4116 Health Education for Teachers (3 Credits) (Professor Lepore) (EC, MC, CH) (COMPUTER COMPONENT SEE 4017 ABOVE)

COGNATE III: Curricula and Student Characteristics for Inclusion Classrooms (6 Credits)
HBSE 4092 Introduction to foundations of special education opportunities (2 Credits) (Professor Mithaug) (EC, MC, CH)
HBSE 4001 Education of Students with Disabilities in Regular Education (2 Credits) (Professor Gomez) (EC, MC, CH)
HBSE 4006 Working with families of Children with disabilities (2 Credits) (Professor Keohane) (EC, MC, CH)

- CABAS® Modules Found in The Above Courses To Synthesize Repertoires and Provide Continuing Education
  Mastery of requirements in the above sequence of courses and modules from those courses typically results in the achievement of two CABAS® Board Certified Teacher Ranks (Teacher I and II in the USA, the United Kingdom, and the Republic of Ireland). The CABAS® Professional Ranks are:
  - Teacher I,
  - Teacher II,
  - Master Teacher, Assistant Behavior Analyst, Associate Behavior Analyst, Senior Behavior Analyst,
  - Assistant Research Scientist, Associate Research Scientist, Senior Research Scientist.
  The Behavior Analyst and Research Scientist Ranks are Post MA and Post Doctoral levels of expertise. The research scientist ranks are equivalent to the research scientist ranks in research universities in the United States and recognize research publications and scientific leadership in behavior analysis and schooling.

References
Services for Students with Disabilities: The College will make reasonable accommodations for persons with documented disabilities. Students are encouraged to contact the Office of Access and Services for Individuals with Disabilities for information about registration (166 Thorndike Hall). Services are available only to students who are registered and submit appropriate documentation.

Statement on Academic Conduct: A Teachers College student is expected to refrain from any conduct, including cheating, plagiarizing, or purchasing documents submitted for academic evaluation, that calls into question his/her academic and/or professional probity. Decisions regarding academic evaluation in all aspects of students’ work at the college, including course work, certification examinations, clinical or field experiences, and preparation of dissertations, are within the sole jurisdiction of the faculty concerned, including as appropriate, the department or program staff members. Disciplinary actions (e.g., reprimand, suspension, or dismissal) in cases of academic misconduct can be imposed by the Vice Provost or the Committee on Student Conduct.

Resolution of Student Academic Program Concerns: Any student who has a concern regarding an academic matter may seek assistance. The procedure for resolving academic program concerns (see note of grade correction process below) begins with either the faculty member (if the concern is related to a course) or the student’s advisor. If the student is not satisfied with the response or resolution achieved at this first level, or if speaking with the faculty member presents a conflict of interest for the student, the student should proceed to speak with the Program Coordinator in the area in which the academic concern resides. If the student is not satisfied with the response or resolution achieved through the Program Coordinator, the student should proceed to speak with the Chair of the academic department in which the academic concern resides. If the student is still not satisfied with the response or resolution achieved through the Department Chair, or if speaking with the Department Chair presents a conflict of interest for the student, the next step is to contact the Office of the Vice Provost. At any stage of the process, students are welcome to seek the advice and guidance of the Ombudsman, who is charged with attempting to informally resolve student dissatisfaction of an academic nature on a completely confidential basis.

Grade Correction Procedure: The instructor for a course has the responsibility for setting the requirements for a course and making an evaluation of students’ work. Once a grade has been given, the instructor is not free to change the grade unless the instructor indicates to the Registrar that an error was made in the original grade transmitted. If a student believes that an error has been made, he/she must take the initiative in bringing about the necessary correction prior to the conclusion of the semester immediately following the semester in which the course was taken. The normal procedure for effecting a correction would be through direct discussion between the student and the instructor. If redress cannot be attained through such discussions, the student may next appeal to the
department chairperson of the department offering the course. If resolution cannot be attained through appeal, the student may next appeal to the Dean. In situations where the student feels that such an appeal process might not be in the student’s interest, counsel and assistance can be sought from the Office of the College Ombudsman and the Office of the Vice Provost.