

**BOARD OF HIGHER EDUCATION**  
**REQUEST FOR COMMITTEE AND BOARD ACTION**

**COMMITTEE:** Academic Affairs

**NO:** AAC 14-54

**COMMITTEE DATE:** June 10, 2014

**BOARD DATE:** June 17, 2014

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**APPLICATION OF SALEM STATE UNIVERSITY TO AWARD THE MASTER OF SCIENCE IN BEHAVIOR ANALYSIS**

**MOVED:** The Board of Higher Education hereby approves the application of **Salem State University** to award the **Master of Science in Behavior Analysis**.

Upon graduating the first class for these programs, the University shall submit to the Board a status report addressing its success in reaching program goals as stated in the application and in the areas of enrollment, curriculum, faculty resources, and program effectiveness.

Authority: Massachusetts General Laws Chapter 15A, Section 9(b)

Contact: Winifred M. Hagan, Ed.D., Director for Educator Policy

## **BOARD OF HIGHER EDUCATION**

**June 2014**

### **Salem State University Master of Science in Behavior Analysis**

#### **INTENT AND MISSION**

Behavior analysis focuses on explaining behavior in terms of external events that can be manipulated rather than internal constructs that are beyond one's control. Behavior analysts typically work in experimental or applied settings, such as providing behavioral interventions or therapeutic treatments to meet the needs of autistic children, teaching communication, logic and social skills. The proposed Master of Science in Behavioral Analysis (MS/BA) program was designed to meet the Behavior Analysis Certification Board (BCBA), the Association for Behavior Analysis International (ABAI) and the Commonwealth of Massachusetts' professional licensing law for behavior analysts, which was enacted in late 2012.

The proposed MS/BA is designed to train students as behavioral scientists and scientist-practitioners with a strong foundation in theories, concepts, research and clinical applications, and to pursue various options for employment and/or additional doctoral study. Students who complete the proposed program will be eligible for external certifications or licensure at the state level as a behavior analyst.

Consistent with the institution's stated mission, the proposed program is intended to prepare people to work in applied and scientific settings. The inclusion of a thesis option and the overall emphasis on research and scholarship in the program is intended to create an environment that encourages research engagement, and opportunities for presenting and publishing research. As part of an ongoing series, Salem State University (SSU) plans to include students and faculty in community workshops for parents, teachers, and others who can benefit from information about behavior management strategies. In this way, the University promotes civic engagement.

The proposed program has obtained all necessary governance approvals on campus and was approved by Salem State University's Board of Trustees on April 9, 2014. The required letter of intent was circulated on March 11, 2014. No comments were received.

#### **NEED AND DEMAND**

One of the main areas in which behavior analysts work is in the field of intellectual disabilities, including autism. Massachusetts and New England in general has one of the highest rates of individuals diagnosed with autism, at a rate of 0.9% of the population, exceeding the national rate of 0.6%.<sup>1</sup> The Center for Disease Control provides data that indicate the rates of autism almost doubled from 1/150 individuals in 2000 to 1/88 in 2008. Specialists to work with individuals with autism are needed at both the state and national levels.

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<sup>1</sup> <http://graphics.latimes.com/usmap-autism-rates-state/>. Retrieved March 2014

At the same time that the rate is increasing, changes in the licensing laws now require a master's degree for behavior analysts. The Massachusetts Autism Insurance Law provides for a short window of time in which individuals with the required certifications will be eligible for licensure. After this period, only those with a minimum of a master's degree including at least 30 credits in behavior analytic graduate-level courses will be eligible for licensure. The rise in rates of diagnosed autism, coupled with the recent legislation regarding insurance coverage and licensure for behavior analysts indicates a strong need for the proposed program.

### *Student Demand*

SSU conducted an internal survey with area employers and determined that there is strong interest in hiring masters-level behavior analysis graduates who are eligible for licensure. The institution also surveyed current students in related programs, who also indicated a strong interest in the proposed program.

## **OVERVIEW OF PROPOSED PROGRAM**

The proposed program builds from the institution's current graduate certificate program in Applied Behavior Analysis, established in 2012, and its curriculum is designed to align with the accreditation standards set by the national ABAI. The university intends to seek accreditation from ABAI in the program's fifth year of enrollment.

### *Duplication*

According to the institution's analysis, there are twelve universities and colleges in Massachusetts that offer masters degrees with a focus on behavior analysis. Of these institutions, two are public, including the University of Massachusetts Lowell and Westfield State University, and five have been designed to meet the specific standards for BCBA licensure. Of these twelve programs, only the one at Simmons College is ABAI-accredited.

The proposed SSU program is unique in that it will offer a thesis option, physical human and animal research laboratories, and supervised research or practicum options. The proposed program meets all standards within the field, provides greater flexibility and requires fewer credits for completion than the other MA ABAI-accredited program located at Simmons College in Boston.

## **ACADEMIC AND RELATED MATTERS**

### *Admission*

The proposed program has two paths to admission for individuals who have earned a bachelor's degree. Traditional entry into the full master's program is one option, or entry through the Post-Baccalaureate Applied Behavior Analysis (ABA) certificate is another. Traditional entry into the full master's program from the undergraduate degree will require a completed undergraduate degree in a related field with a minimum GPA of 3.0, scores on Graduate Record Examination or Miller Analogies Test, completion of a research

methods and statistics course, General Psychology, and at least one course in either experimental or applied behavior analysis or experience working in the field. Entry from the existing post-baccalaureate ABA certificate program will require that the applicant be matriculated in that program, and have successfully completed at least 3 of the 5 courses in the program at time of application to the full master's program. Those who are matriculated in the Post-Baccalaureate program must meet the program requirements of an undergraduate degree in a related field with a 3.25 GPA, and either have 6 months of relevant experience or have completed a university internship in a setting that utilizes applied behavior analysis interventions.

A two-person admissions committee comprised of full-time tenured or tenure-track faculty will review each application for eligibility criteria, the applicant's personal statement, and information in the letters of recommendation.

### Enrollment Projections

	# of Students Year 1	# of Students Year 2	# of Students Year 3	# of Students Year 4*
New Full Time	4	5	6	6
Continuing Full Time		3	6	10
New Part Time	3	3	3	5
Continuing Part Time		2	4	6
Totals	7	13	17	27

#### *Curriculum (Attachment A)*

The proposed curriculum was designed according to the accreditation standards for master's programs published by ABAI, currently the only accrediting body for programs in behavior analysis. The 39 – 43.5 credit curriculum includes the 6-course sequence already approved by the BACB. In addition, students must complete either a thesis or a comprehensive examination. The proposed program's curriculum consists of 24 credit core curriculum- 6 required credits in psychology, 6 credits in directed study or practicum hours and 3-6 credit thesis, or master's directed study, and an optional 1.5 credit exam preparation course. The proposed MS/BA is available in two tracks. One is a research-based experimental analysis of behavior track and the other is an applied behavior analysis track. Students who plan to continue on to doctoral programs will be expected to complete the research-based focused track. Students who plan to pursue employment would be guided to opt for the applied track.

### **RESOURCES AND BUDGET**

#### *Fiscal (Attachment B)*

### *Budget Narrative*

The proposed MS/BA budget is based on the assumption that there will be up to 27 credits to deliver during the first year, and then 43.5 credits in each of the subsequent years. The numbers are based on the current MSCA contract. Recognizing that faculty teaching in the program will be appointed at various ranks SSU-estimated projections are based on appointment at the highest value, with an estimated 3% increase in salaries per year included for both full-time and part-time faculty. One graduate course is estimated to be 10% of the annual workload, which allows for the accumulated workload to be absorbed into the budget. Replacement costs for faculty loads, graduate assistants, instructional materials and library acquisitions are included in the proposed budget. Field and clinical resources, travel expenses for students and faculty, conference registrations and program marketing are also built into the budget.

The program expects to hire graduate students to support the program and research interests. Graduate assistants on campus are provided with tuition remission for a minimum of 6 credits (\$840 per semester), and are hired at \$12 per hour for up to 10 hours per week for a total of 32 weeks during the academic year. This would cost a total of \$5,520 per year for each assistant. The program would request the hiring of program assistant hired to assist with the running of the graduate program, and one research assistant to work on research projects with faculty members.

Instructional Materials and Library Acquisitions are estimated at \$500 per year, with an additional \$500 in Year 1 to purchase special acquisition: APA Handbook of Behavior Analysis.

### *Faculty and Administration (Attachment C)*

It is planned that the proposed MS/BA will be administered through the School of Graduate Studies as a psychology graduate program. Consistent with anticipated changes to the BACB requirements, the program coordinator must be a full-time tenured or tenure-track faculty member who is a Board Certified Behavior Analyst. Two full-time tenure-track and three part-time faculty, all of whom are trained in behavior analysis as part of their graduate education, will teach the core courses of the program. SSU will utilize additional faculty from the psychology department (three full-time tenured faculty and additional part-time faculty) to deliver required and optional electives. SSU is committed to hiring additional faculty as the program grows.

### *Facilities, Library and Information Technologies*

The library resources for this program include 68 book and journal titles at the SSU library related to the terms behavior analysis, behavior therapy, behavioral neuroscience, and behavioral pharmacology. In addition, there are 71 related videos available. The library is part of the NOBLE network, and has access through Inter-Library-Loan to the vast libraries in Massachusetts, which reduces the time needed to obtain sources not available on campus. It is expected that access to the current journals in this field will not represent additional costs. SSU will need to acquire the two-volume APA Handbook of Behavior Analysis (ed. G. Madden, 2012). This will be valuable for experimental and applied students alike, as it emphasizes the important of translational research that bridges the

gap between laboratories and practitioners. The cost for this two-volume set is \$895, which includes both print and electronic access.

The Department of Psychology houses a 20-station PC computer lab that is available for research methods and statistics classes, as well two small human laboratory rooms. The two laboratory rooms are each equipped with a computer, and a video-recording system. There is also a 12-station operant chamber lab, and a vivarium that is used to house rats for educational purposes in undergraduate courses. SSU provides that it has the necessary resources for students to complete the required research requirements in the program.

### PROGRAM EFFECTIVENESS

The institution developed the following plan to assess the effectiveness of the program.

Goal	Measurable Objective	Strategy for Achievement	Timetable
Success Rates	1. Completion rates for program, including practica, directed studies, theses, and masters projects  2. Number of matriculated students and average time to completion  3. Survey results from practicum sites  4. Job placements of current and alumni students	1 & 2. Keeping track of incoming data on applicants, whether or not matriculated (e.g., GPA, GRE/MAT, prior experience, etc.). Surveying students to determine how they found out about the program.  3. Develop survey by Year 1 for practicum sites to solicit information about preparation of students from the program.  4. Students will be encouraged to keep in touch via email, LinkedIn, and Facebook for employment status and other updates	All of these objectives will be ongoing. The development of the record-keeping and survey will take place prior to Year 1. The development of the LinkedIn and Facebook presence will take place during Year 1 in consultation with Marketing and with current students to build interest in the program.
Hiring Full Time Tenure-Track Faculty Member	Successful Hiring Process	1. Work with department to develop hiring announcement 2. Work within department and	Complete by Year 2

		<p>university to appoint hiring committee</p> <p>3. Work with Dean and HR to advertise widely to ensure diverse pool of candidates</p> <p>4. Telephone interviews and on-campus interviews, as per hiring budget</p> <p>5. Chairperson will recommend hiring preference to Dean</p>	
Self-Assessment for Ongoing Improvement	<p>1. The program will use the information above to determine whether any changes need to be made to the program.</p> <p>2. The information will be collected and presented in such a way to make it available for later accreditation process.</p>	<p>1. The data collected for the above goals will be analyzed and summarized with recommendations about future programming needs in the MS program.</p> <p>2. An annual report will be filed along with the data, to provide later information when seeking ABAI accreditation</p>	Annually, ongoing
Seek ABAI Accreditation	<p>1. Apply for accreditation by the Association for Behavior Analysis International (ABAI)</p> <p>2. Complete self-study</p> <p>3. Complete site visit</p>	<p>1. Coordinator, in consultation with the chairperson and dean of graduate studies, will apply for ABAI accreditation</p> <p>2. Working with the data and reports from the previous five years, the coordinator will work with faculty in the department, the chairperson, and the dean of graduate studies to complete the self-study.</p> <p>3. Following the self-study, the university would bear the cost of the site visit by the ABAI accreditation members.</p>	<p>1. The application would be submitted after Year 5.</p> <p>2. The self-study would take place commencing at the end of Year 5.</p> <p>3. The site visit would take place during Year 6.</p>

## **EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE**

The proposed program was reviewed by Linda Hayes Ph.D., Distinguished International Professor, Department of Psychology, University of Nevada, Reno and Marc N. Branch, Professor Emeritus, Department of Psychology, University of Florida.

The evaluators reviewed the proposed program's written proposal independently. Both expressed support for the program and made minimal suggestions and recommendations for improvement. Both reviewers observed that the institution will need to make additional faculty resources available as the program grows. Regarding the two admissions pathways, one reviewer commented that they are planned in a laudable attempt to enhance diversity among those admitted. The other reviewer suggested simplifying the dual criteria around GPA, coursework and the inclusion of standardized tests. SSU reviewed the admission criteria carefully and both reviewers' comments and decided it will be beneficial to retain the two avenues for admission and criteria as proposed in the short term, and to reevaluate the admission criteria overall as part of the SSU ongoing assessment procedures.

## **STAFF ANALYSIS AND RECOMMENDATION**

Staff thoroughly reviewed all documentation submitted by the **Salem State University** and external reviewers. Staff recommendation is for approval of the proposed **Master of Science in Behavior Analysis**.

## ATTACHMENT A: CURRICULUM OUTLINE

<b>Major Required (Core) Courses (Total # of courses required = 12)</b>		
Course Number	Course Title	Credit Hours
PSY 715	Behavioral Principles	3
PSY 725	Applied Behavior Analysis I	3
PSY 726	Applied Behavior Analysis II	3
PSY 817*	Seminar in Experimental Analysis of Behavior	3
PSY 825	Behavioral Assessment	3
PSY 830	Small N Research Design & Analysis	3
PSY 840	Legal, Ethical, and Professional Issues in ABA	3
PSY 842*	Conceptual Issues in Behavior Analysis	3
PSY 700 or PSY 786	Research Methods OR Statistics and Data Analysis for I/O Psychology	3
PSY Elective	Any Graduate-Level PSY or Other Approved Graduate Elective	3
PSY 875/876/910/911/912	Directed Study Research (PSY 875) or Practicum Hours (PSY 910/911/912). May be either, or a combination	6
PSY 899*+999* or PSY 876	Thesis I + Thesis II or Psychology Directed Study (PSY 876)	3 or 6
	SubTotal # Core Credits Required	39 to 42
<b>Elective Course Choices (Total courses required = 5 to 7) (attach list of choices if needed)</b>		
PSY 727*	Exam Preparation Course (Optional, 1.5 credits)	1.5
	SubTotal # Elective Credits Required	
<b>Curriculum Summary</b>		
Total number of courses required for the degree	13 to 15	
Total credit hours required for degree	39 to 43.5	
<b>Prerequisite, Concentration or Other Requirements:</b>		
<p><b>PSY 101, at least one course in Psychology Learning (operant or respondent) or applied behavior analysis, and at least one course in research methods or statistics.</b></p>		

**ATTACHMENT B:**

**Program Budget**

One Time/ Start Up Costs	Cost Categories	Annual Expenses			
		Year 1	Year 2	Year 3	Year 4
See budget narrative	Full Time Faculty (Salary & Fringe)	41600	64272	66200	68186
See budget narrative	Part Time/Adjunct Faculty (Salary & Fringe)	18348	18899	23623	24332
Program Assistant + Research Assistant	Staff	11040	11371	11712	12064
Coordinator APR + Supplies	General Administrative Costs	10336	10336	10336	10336
Start up \$500 - see narrative	Instructional Materials, Library Acquisitions	1000	500	500	500
Start up \$6083: See narrative	Facilities/Space/Equipment	7283	3500	3500	3500
Internship Part-Time Faculty Member	Field & Clinical Resources	8360	8360	8360	8360
Items + Travel Start up of \$400 for table throw	Marketing	33400	29250	26700	24700
Student Travel, guest speakers, and faculty retreat/ development Start up \$150 for additional retreat	Other (Specify)	1000	850	850	850
	<b>Totals</b>	<b>\$132,367</b>	<b>\$147,338</b>	<b>\$151,781</b>	<b>\$152,828</b>

One Time/ Start-Up Support	Revenue Sources	Annual Income			
		Year 1	Year 2	Year 3	Year 4
	Grants				
	Tuition	19740	38438	58601	82441
	Fees	29187	56834	86734	121896
	Departmental				
	Reallocated Funds				
	Other (specify)				
	<b>TOTALS</b>	\$48,927	\$95,272	\$145,335	\$204,337

**ATTACHMENT C: FACULTY**

Summary of Faculty Who Will Teach in Proposed Program							
Name of faculty member (Name, Degree and Field, Title)	Check if Tenured	Courses Taught Put (C) to indicate core course. Put (OL) next to any course currently taught online.	Number of sections	Division of College of Employment	Full- or Part- time in Program	Full- or part-time in other department or program (Please specify)	Sites where individual will teach program courses
<b>Example:</b>							
Crone-Todd, Darlene Ph.D. Experimental Psychology Associate Professor	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>• Beh. Principles (C)</li> <li>• Conc. Issues(C)</li> <li>• Directed Study</li> <li>• Practicum in ABA</li> <li>• Thesis I &amp; II</li> </ul>	(1) (1) (1) (1) (1)	Psychology	Full-Time	No	• Main Campus
Aparicio, Carlos Ph.D. Experimental Psychology Associate Professor	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Sem. EAB (C)</li> <li>• Small N Res. (C)</li> <li>• Directed Study</li> <li>• Practicum in ABA</li> <li>• Thesis I &amp; II</li> </ul>	(1) (1) (1) (1) (1))	Psychology	Full-Time	No	• Main Campus
Snyder, Ryan M.Ed., BCBA] Visiting Instructor	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• ABA II</li> <li>• Legal, Eth &amp; Prof</li> </ul>	(1)	DGCE - Psychology	Part Time	No	• Main Campus
Markovits, Rebecca MA Behavior Analysis, BCBA Visiting Instructor	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Behavioral Assessment</li> </ul>	[1)	DGCE - Psychology	Part Time	No	• Main Campus
Weinberg, Michael Ph.D. Psychology, Experimental Analysis of Behavior, BCBA-D Visiting Professor	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• ABA I</li> </ul>	(1)	DGCE - Psychology	Part Time	No =	• Main Campus