

BOARD OF HIGHER EDUCATION
REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Academic Affairs

NO.: AAC 12-05

COMMITTEE DATE: October 11, 2011

BOARD DATE: October 18, 2011

**APPLICATION OF UNIVERSITY OF MASSACHUSETTS LOWELL TO AWARD THE
MASTER OF SCIENCE IN AUTISM STUDIES**

MOVED: The Board of Higher Education hereby approves the application of **University of Massachusetts Lowell** to award the **Master of Science in Autism Studies**.

Upon graduating the first class for this program, 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: Dr. Francesca Purcell, Associate Commissioner for Academic and P-16 Policy

BOARD OF HIGHER EDUCATION

October 2011

University of Massachusetts Lowell Master of Science in Autism Studies

INTENT AND MISSION

The University of Massachusetts Lowell (UML) filed an expedited application to offer the Master of Science in Autism Studies. Autism Spectrum Disorder (ASD) represents a class of related behavioral-neurological disorders. Typically diagnosed before the age of three, ASD profoundly affects one's ability to communicate, develop language, form social relationships, and respond appropriately to environmental stimuli. The most recent estimate of prevalence of ASD in the U.S. is 1 in every 91 children, which marks a rapid increase from a 2007 Center for Disease Control estimate of 1 in 1,503. World-wide, a similar picture is emerging. Prevalence data collected by the International Autism Epidemiology Network indicate ranges of prevalence between 1:86 and 1:833. There is no consensus among the experts as to why the rates have risen so rapidly in recent years, but regardless of the reasons, the prevalence rates are high, and ASD has become one of the major challenges to educational and healthcare systems in the Commonwealth of Massachusetts, across the United States, and around the world. In 2009, President Obama declared autism one of his top three public health priorities, with a commitment to support continued funding for biomedical research into the causes of and cure for ASD.

The proposed program is designed to lead to certification by the Behavioral Analysis Certification Board (BACB). BACB certified graduates of the program will be able to work in schools and other agencies to design and implement effective interventions for individuals on the ASD spectrum and to supervise other direct service providers. They will also be able to conduct research that could lead to new and effective interventions. Ultimately, graduates of the proposed program will enhance the development of individuals diagnosed with autism, support their families, and strengthen the ability of schools and hospitals to work with individuals diagnosed on the spectrum.

The proposed program is developed from three areas of strength from existing programs in the University's Department of Psychology. First is the graduate certificate program in Behavioral Intervention in Autism (BIA) established in 2005. Courses from this certificate program were designed and have been approved to fulfill specific educational requirements for credentialing as a Board Certified Behavior Analyst and will form the basis of the curricular requirements of the proposed degree. The second strength is the Department's undergraduate specialization in developmental disabilities, which includes ASD, since 1997. Third is the department's master's degree program in Community Social Psychology, which focuses on the influence of social systems and institutions on human development and on community interventions, designed to promote improved human functioning. The program also includes advanced coursework in research methods, and it has successfully graduated 300 students since 1980. The University now desires to merge these areas of strength into a full master's degree focused on Autism Studies. The University will continue to offer the BIA certificate.

UMass Lowell's mission involves fostering the well-being and psychological development of youth through education and social and health services. This well-being is threatened by the increase in the incidence ASD.

The proposed program has been approved by the University's internal governance procedures and was approved by the University Board of Trustees on May 25, 2011. The letter of intent was circulated August 8, 2011. No responses were received

NEED AND DEMAND

The most effective treatment for autism involves early intervention and evidence-based behavioral treatment. Currently there is a shortage of trained professionals who can develop and implement behavioral plans for children on the autism spectrum. There is a great need for workers at all levels, including both direct-service workers and more highly trained professionals who can design programs and train additional workers. By having an online component, the proposed program will also address a critical social need internationally and nationally as well as in the Commonwealth.

While the U.S. Bureau of Labor Statistics does not include behavior analyst or autism specialist in its various categories, it does indicate that between 2008-18 that there will be a considerable demand (above the baseline of 10.1%) for psychologists (14.4%), counselors, social workers, and other community and social service specialists (16.5%) and teachers and instructors (14.7%). Likewise, the Association of Professional Behavior Analysts conducted a recent survey of its 6,500 members and found that no members reported being unable to find employment and only three percent reported working part-time because of an inability to find fulltime employment.

Two national trends indicate that the demand for graduates in autism studies will increase dramatically in coming years. One is that more and more states are requiring their public school districts to have at least one BCBA on staff. The other relates to federal and state legislation requiring expanded insurance coverage for autism services, including diagnosis and treatment. On August 3, 2010, Massachusetts became the 23rd state to enact an autism mandate that requires fully-funded health insurers to provide coverage for diagnosing and treating ASD.

Student demand for the University's existing graduate certificate program behavioral intervention in autism has been very strong. In six years, course enrollments have grown from 121 to 1,200 by 2011.

ACADEMIC AND RELATED MATTERS

Admission

Admission requirements for the program are as follows for first year and transfer students.

First Year Students	Transfer Students*
1. Undergraduate GPA = at least 3.00. 2. A minimum of 4 courses in Psychology and 1 course in Statistics. 3. Acceptable GRE scores.	1. Undergraduate GPA = at least 3.00. 2. One to four graduate courses in Psychology with GPA = at least 3.5. 3. Acceptable GRE scores (waived for those completing

4. International students submit TOEFL. 5. Three letters of recommendation.	BIA certificate). 4. International students submit TOEFL. 5. Three letters of recommendation.
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Curriculum (Attachment A)

The proposed curriculum is a 42 credit-hour master's program that builds upon the University's current Behavioral Intervention in Autism certificate. The 42 credit hours, which are to be completed by full-time students over two years, conform to the other license/certification-oriented master's programs at UMass Lowell. A large number of the courses currently exist as part of the BIA certificate, the Community Social Psychology master's program and the University's Graduate School of Education. The proposed program will be a blended program, courses will be offered partly on-campus and partly on-line.

The proposed program is designed to enable students to achieve certification as behavior analysts by Behavior Analyst Certification Board (BACB). In addition to curricular requirements, students are required to complete a 3-semester field placement approved by the BACB. Students must complete 750 hours of intensive practicum in behavior analysis, with 250 hours required in each of the 3 semesters, and with supervision provided both on-site and by UMass Lowell faculty.

Program assessment will focus on determining the extent to which each of the following student learning outcomes has been achieved by graduates of the proposed program:

Upon completion of the program, students will know:

- definitions and characteristics of autism and other developmental psychopathologies;
- principles, processes, and concepts of applied behavior analysis;
- legal and ethical aspects of intervention; and
- how programs and services with families, schools, and the community can be coordinated

And upon completion of this program students will be able to:

- conduct behavioral assessment and select appropriate intervention strategies;
- measure behavior and use appropriate techniques for displaying and interpreting data;
- carry out experimental evaluation of interventions; and
- train and supervise direct service providers in educational and human service settings.

RESOURCES AND BUDGET

Faculty and Administration

The program as proposed can be fully supported by existing psychology department faculty, administration and staff. As of September 2011 there will be 19 tenured and

tenure track faculty and 3 non-tenured Lecturers in the department, plus 2 emeritus faculty. Of these, 9 will become the core of this new program. In addition, the department has 17 different Ph.D.-level adjunct instructors to cover the graduate certificate courses online. The department has recently hired two faculty members, one full-time and that other as a visiting professor, which will add to these resources.

Library and Information Technology

The current library and IT resources are sufficient to sustain the proposed program. The UMass Lowell library has extensive electronic resources for journals.

Facilities and Equipment

The Psychology Department is currently housed in facilities on the University’s South Campus. The department is scheduled to be moved in fall 2012 to a new building that will also house Criminal Justice and Nursing. The new building will provide enhanced facilities for offices, classrooms, seminars, and faculty and student research.

Fiscal (Appendix B)

The University submitted a budget for the first four years of the proposed program.

PROGRAM EFFECTIVENESS AND STUDENT LEARNING OUTCOMES

In order to ensure that the proposed program is effectively moving towards goal attainment, it will be assessed each year. The Graduate Coordinator will provide an annual report to the Psychology Department Chairperson and to the Graduate Program Committee detailing quantitative and narrative data for all measurable objectives. By the end of the second year of operation, and then every three years thereafter, the department Chair will ask a board of external reviewers to conduct a comprehensive review of the program, including both its coursework and its field placement manual. The Chair will also ensure that approval by the Behavior Analyst Certification Board is maintained.

The University developed the following program outcomes.

Goal	Measurable Objective	Strategy for Achievement	Timetable
Program Enrollees	Attract high-quality applicants. Applicants with strong leadership skills are especially encouraged to apply.	Market program through: 1. Posters and flyers to colleges. 2. Announcements in academic association newsletters and professional meetings. 3. Web presence and on-line search services 4. Public schools 5. Autism programs and organizations 6. The University’s BIA certificate	3-6 mos. before implementation, then ongoing
Relevance of Curriculum	100% adherence to national standards	1. Approval by BACB as University-Sponsored program 2. Peer feedback from presentations at relevant national conferences	Prior to implementation and then ongoing
Supervisor Approval	95% of students fulfill all requirements of their field placement and earn full approval from their supervisors	1. Include campus supervision course, run by BACB to accompany field placement 2. Develop and follow strict	Prior to implementation and then ongoing

		guidelines for selection of field placement settings	
Retention and Graduation	1. High retention of enrollees [80%] 2. High graduation rate [80%]	1. Recruit high-quality applicants matched to program strengths 2. Individualized student advising	Ongoing
Job placement	100% job placement	Produce high-quality graduates with superior skill sets	Ongoing
Certification	95% success on BACB exam	1. Relevant coursework 2. High-quality instruction	Ongoing

EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

The proposed program proposal was reviewed by Beth Sulzer-Azaroff, Ph.D., Professor Emeritus from the University of Massachusetts, Amherst and James A. Mulick, Ph.D., Professor in Pediatrics & Psychology, the Ohio State University. The evaluators recognized the need and importance of the proposed program and agreed that the program is well designed and sufficiently rigorous for students to be in high demand when they graduate. The reviewers suggested the inclusion of a solid foundation in normal childhood development for admitted students as well as increased faculty resources as the program grows. While the evaluators agreed that there are appropriate faculty resources to mount the program, they anticipated that the program will become strained in years two or three. They observed that the Department of Psychology would benefit from hiring permanent faculty with training and experience in basic and applied behavior analysis, rather than relying on adjuncts to deliver this curriculum, as well as a faculty member with a neuroscience or psychopharmacology background.

The University responded that it will more explicitly emphasize an admission requirement for a background in developmental psychology. The University recognizes that it will need to develop a course in neuroscience and psychopharmacology and plans to enlist the collaboration of experts from its partnership with the Shriver Center and UMass Medical faculty. The University has hired one additional faculty member in the Psychology Department effective September 1, 2011 and a visiting professor in behavioral psychology, also effective September 1st. Both of these new hires will add to the faculty resources of the Psychology Department.

STAFF ANALYSIS AND RECOMMENDATION

Board staff thoroughly reviewed all documentation submitted by UML and external reviewers. Staff recommendation is for approval of the Master of Science in Autism Studies

Upon graduating the first class for this program, 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.

ATTACHMENT A: CURRICULUM OUTLINE

Course	Tier I: Foundation Courses [9 hours]-Required	Credit Hours
47-501	1. Autism and Developmental Disabilities	3
47.500	2. Introduction to Community Social Psychology	3
47-472	3. Legal and Ethical Issues in Professional Practice	3
	Tier II: Methods [6 hours] -Required	
47.512	1. Applied Research Methods	3
47.565	2. Measurement and Experimental Design in Behavioral Intervention*	3
	Tier III: Behavioral Interventions [12 hours] -Required	
47.561	1. Introduction to Behavioral Intervention in Autism*	3
47.562	2. Teaching and Positive Behavioral Support in Autism*	3
47.566	3. Functional Analysis and Treatment of Challenging Behaviors*	3
47.568	4. Behavioral Intervention Program Models in Autism*	3
	Tier IV: Supervised Practicum [6 hours] -Required	
47-671	1. Introductory Supervised Practicum in BIA	2
47.672	2. Intermediate Supervised Practicum in BIA	2
47.673	3. Advanced Supervised Practicum in BIA	2
	Electives [9 hours]	
47.501	1. Applied Developmental Psychology	3
47.502	2. Disabilities and Human Services	3
47.504	3. The Family System	3
47.508	4. The Child in the Community	3
47.522	5. Psychology of Diversity	3
47.545	6. Community and Organizational Change	3
47.611	7. Program Evaluation	3
44.580	8. Descriptive and Inferential Statistics	3

47.571	9. Language Development	3
47.663	10. Experimental Analysis of Behavior	3
47.661	11 Social and Community Interventions in Autism	3
Future	12. Neuroscience and Psychopharmacology in Autism Studies	3
Future	13. Strategies and Challenges of Early Intervention	3
47.743	14. Master's Thesis	6 (2 semesters)
	Curriculum Summary	
	Total number of courses required for degree	15
	Total credit hours required for degree	42

* Courses required for BCBA eligibility

PROGRAM BUDGET

One Time/ Start Up Costs		Annual Expenses			
		Year 1	Year 2	Year 3	Year 4
	Cost Categories				
	Full Time Faculty (Salary & Fringe)	\$50,000	\$100,000	\$100,000	\$100,000
	Part Time/Adjunct Faculty (Salary & Fringe)	\$15,000	\$31,000	\$32,000	\$33,000
	Staff	\$20,000	\$21,000	\$22,000	\$23,000
	General Administrative Costs	\$5,000	\$5,000	\$5,000	\$5,000
	Instructional Materials, Library Acquisitions	\$1,000	\$1,000	\$1,000	\$1,000
	Facilities/Space/Equipment	\$10,000	\$10,000	\$10,000	\$10,000
	Field & Clinical Resources	\$0	\$0	\$0	\$0
	Marketing	\$20,000	\$10,000	\$10,000	\$10,000
	Other (Specify)				
	TOTALS	\$121,000	\$178,000	\$180,000	\$182,000

One Time/Start- Up Support		Annual Income			
		Year 1	Year 2	Year 3	Year 4
	Revenue Sources				
	Grants	\$0	\$0	\$25,000	\$50,000
	Tuition	\$35,522	\$79,938	\$79,938	\$115,470
	Fees	\$103,588	\$230,193	\$230,193	\$333,781

	Departmental: Tuition Fall-Spring (CSCDE online courses)	\$45,000	\$92,000	\$94,000	\$96,000
	Departmental: Tuition Summer (CSCDE online courses)	\$0	\$10,200	\$10,200	\$10,200
	Reallocated Funds	\$0	\$0	\$0	\$0
	Other (specify)	\$0	\$0	\$0	\$0
	TOTALS	\$184,110	\$412,331	\$439,331	\$605,451

Budget Notes: Costs

- ☐ The cost of reassigning a course for full-time faculty is calculated at 20% of the median salary for Psychology Department Faculty (\$92,700) plus fringe (33.33%), which is approximately \$25,000.
- ☐ The cost per course for Adjunct Faculty is projected at \$5,000 per course, with annual inflation of \$1,000. In effect, these faculty will be self-funded through income generated via Continuing Education.
- ☐ A half-time staff person will assist with social marketing and program coordination.
- ☐ General Administrative costs include copying and postage.
- ☐ No major Instructional Materials or Library Acquisitions are anticipated for this program.
- ☐ State of the art facilities are under construction, including equipment, to house psychology, criminal justice and health programs. The \$10,000 annually projected budget here is for routine equipment replacements.
- ☐ Marketing via electronic and print media will further publicize this program which is already in high demand.
- ☐ Graduate teaching assistants are generally reserved for Ph.D. students who teach undergraduate courses. Costs are assessed to the undergraduate department that receives the teaching support.

Budget Notes: Revenue Sources

- ☐ Faculty are expected to generate external support, beginning no later than the third year of the new program.
- ☐ Tuition and fees are projected for 16 full-time and 4 full-time equivalent part-time students per year in a 2 year program, for a total of 40 students. We assume that approximately one-half of the students will be out of state and that some will take courses online, administered through Continuing Education. Thus, we project total revenue from tuition and fees of approximately \$600,000 by year four.