

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

**COMMITTEE:** Academic Affairs

**NO.:** AAC 11-15

**COMMITTEE DATE:** March 15, 2011

**BOARD DATE:** March 22, 2011

---

**MOVED:** The Board of Higher Education hereby approves the expedited application of the **University of Massachusetts Boston** to award the **Master of Arts in Applied Economics**.

One year after graduating the program's first class, 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**

March 2011

### **University of Massachusetts Boston**

#### Master of Arts in Applied Economics

#### **INTENT**

The University of Massachusetts Boston (UMB) submitted an expedited proposal to offer a Master of Arts in Applied Economics. The proposed program's primary goal is to provide students with the economic analysis and research tools that will enhance their ability to improve the functioning of urban economic and social systems in cities throughout the world. The proposed program will have a distinctive focus on urban economic policy issues addressing questions of economic access, opportunity, and equality.

The proposed program intends to prepare graduates to assume leadership positions in the formulation and analysis of economic development, urban planning, educational and human capital development, environmental and health policies, and the development of local, state, national, and international governmental initiatives required of researchers and governmental and non-governmental organization managers and consultants. The program is designed for individuals currently working in a policy setting or desiring jobs as economists. Although primarily directed at people engaged in areas that intersect with urban public policy issues, the program will also appeal to those teaching in high school or community colleges.

The proposed program intends to utilize the strengths of the current faculty in the economics department as well as courses and faculty from other graduate programs on campus: specifically the M.A. in Applied Sociology, the Ph.D. in Public Policy, the M.S. in International Management, the M.S. in Public Affairs, the M.B.A. in Management, and the Ph.D. in Environmental, Earth and Ocean Sciences. In addition, a five-year B.A./M.A. sequence will be offered.

The proposal has obtained all necessary governance approvals on campus and was approved by the University Board of Trustees on September 29, 2010. The letter of intent was circulated on November 2, 2010. No comments were received in response to the letter of intent.

#### **MISSION**

The mission and goals of the Master of Arts in Applied Economics coincide with those of the UMB. The program will provide a culturally and ethnically diverse pool of graduate students a curriculum that will enrich the analytic, technical, and problem-solving skills that are crucial for urban-oriented professionals in the public and private sectors.

#### **NEED AND DEMAND**

The Executive Office of Labor and Workforce Development's *Commonwealth of Massachusetts Employment Projections 2006-2016* provides indicators that the students with the types of skills acquired in the proposed program will find jobs in high-demand sectors. The industry with the fastest growing employment projection in Massachusetts is Professional, Scientific and Business Services (18.1%); and the other two sectors that would be likely to hire those with a master in economics include Financial Activities (projected to grow at 3.2%) and Government

(projected to grow at 2.0%). Further, projected occupational growth for professionals in Life, Physical and Social Science occupations is 17.6%, one of the highest.

The U.S. Bureau of Labor Statistics' *Occupational Outlook Handbook, 2010-11 Edition* entry on Economists notes, "Rising demand for economic analysis in virtually every industry should stem from the growing complexity of the global economy, the effects of competition on businesses, and increased reliance on quantitative methods for analyzing and forecasting business, sales, and other economic trends. Some corporations choose to hire economic consultants to fill these needs, rather than keeping an economist on staff. This practice should result in more economists being employed in consulting services." Further, the demand for economists in Massachusetts is expected to grow slightly faster (10% from 2006-2016) than that for the U.S. as a whole (6%).

Economists are most likely to be concentrated in large urban areas (*Occupational Outlook Handbook*), so the demand for economists and professionals with economic skills should be higher in a metropolitan area like Boston than in the state-wide and nation-wide projections. Boston is home to a large number of small and large non-profit institutions that rely on applied economic analysis and research. As the capital and largest city in the Commonwealth, Boston has a large number of state, federal, and local government agencies as well as many financial, insurance, and telecommunications companies and consulting firms.

Currently, no public university in Massachusetts has a program specifically designed to offer a terminal masters degree in economics. At present, professionals in the Boston area who wish to upgrade their skills with a master's degree in economics have two main options. One option is to enroll in existing programs at UMB or the University of Massachusetts Lowell in areas such as business administration or finance, interdisciplinary public policy, or the interdisciplinary study of regional economic and social development. While these programs generally include some instruction in economics, applied economic analysis is not their sole or primary focus. Students with background in economics and statistics (as will be required for admission to the proposed program) looking for a program to elevate their skills in these areas to enable them to expand their analytical prowess will not find such a program among the current offerings at the University.

The other option in the state is to enroll in an existing masters program in economics or applied economics at a private university. The only comparable degrees in the area are those offered by Northeastern University, Brandeis University, Boston University, and Suffolk University. The Northeastern degree is restricted to those who have a bachelor's degree from that institution. Brandeis University's program is specialized in international economics. And the latter two offer a master's program in economic policy but their tuition costs are substantially higher than the costs at UMB.

## **ADMISSIONS, ENROLLMENT, AND GRADUATION**

Applicants must meet the entrance requirements of the UMB Graduate Program and the M.A. Program in Applied Economics:

1. B.A. degree from a nationally accredited college or university or its international equivalent
2. A course in calculus plus at least five economics courses, including intermediate macroeconomics, intermediate microeconomics, and economic statistics (all with grades of B or better).

3. The following documentation:
  - (a) Official transcripts for all undergraduate or graduate programs attended
  - (b) 3 Letters of recommendation from persons with whom the applicant has had extensive academic and/or professional contacts
  - (c) GRE General Test scores
  - (d) TOEFL scores where applicable
  - (e) Career and/or goal objective statement of approximately 500 words
  - (f) Professional and/or academic resume

Those undergraduate students who wish to apply to the five-year B.A./M.A. option may do so after completing 60 undergraduate credits. They will be required to have the following:

1. At least 60 credits from UMB
2. A course in calculus plus at least five economics courses, including introductory macroeconomics, introductory microeconomics, intermediate macroeconomics, intermediate microeconomics, and economic statistics (all with grades of B or better)
3. Submit the following documentation:
  - (a) Two Letters of recommendation from faculty in the Economics Department of UMB
  - (b) Career and/or goal objective statement of approximately 500 words

UMB anticipates enrolling 15-20 new students per year thus expecting a total enrollment of 30-40 students once the program reaches its second year of operation.

All students will enter together and be required to take substantially the same classes throughout their first and second years. Numerous studies have shown that retention is very high in such cohort-based programs. In addition to the Graduate Program Director (GPD) who will oversee student advisement, students will be assigned advisers at the time of admission and their faculty adviser may or may not become their project supervisor depending on the student's evolving interests. Faculty advisers will be responsible for monitoring their advisees' academic progress and meeting with them each semester to discuss their progress in the program.

The primary audience comprises currently employed workers so the curriculum is designed for part-time students and consists largely of evening courses with some additional weekend mini-courses. A part-time student should be able to complete the program (30 credits) in two years, taking two courses per semester, with the weekend course and a required policy project and capstone seminar fulfilling the balance of remaining credits.

### **CURRICULUM** (Attachment A)

Students will be required to complete 30 credits (nine courses). All students will be required to complete seven required courses in foundational economic theory and methods courses in economics plus one Urban Economics Fundamentals elective, one other elective, and a capstone research project.

For undergraduate students pursuing the degree through the combined B.A./M.A. route, 120 credits will be necessary for the B.A. and 20 credits will be necessary for the M.A. Thus, a student in the combined program will be able to finish the program by substituting 10 credits

from the M.A. courses for the needed undergraduate major credits. The particular courses will be approved by the student's department advisor.

### *Student Learning Outcomes*

The applied theory curriculum will equip students with the conceptual skills in microeconomics, macroeconomics, and political economy necessary for the study of comparative urban economics. The curriculum will include critical and alternative approaches to urban and regional problems that will enhance students' abilities to understand, communicate with, and integrate research with policy professionals from all disciplines. The regional and urban elective courses will provide students with templates for the quantitative and qualitative investigation of specific policy issues.

Students will develop a substantial set of economics and other social science tools to be used in quantitative analysis, policy evaluation, and practical applications. Students will get traditional training in standard economics methods, including multiple regression estimation with diagnostics and remedies. They will also be introduced to less standard methods, such as geographic information systems (GIS), cost-benefit research, and survey research. Further, research methods courses will instruct students on how to work with large data sets, how to find needed data, and technical writing about economic data and statistics, making them well equipped to provide empirical evidence for a wide range of economic policy considerations. In the second year, students will prepare a substantial research project exhibiting the quantitative, qualitative, and analytical skills learned from the program.

### **RESOURCES AND BUDGET** (Attachment B)

The program will be administered by a GDP who will report to the Dean of Graduate Studies and the Chair of the Economics Department. Faculty committees will also be responsible for academic oversight, admissions, and monitoring overall student progress. In addition, the program will need to have an Administrative Assistant (AA) who can work into the evening to be available to students and faculty for administrative support.

*Faculty.* The M.A. program will require three new full-time tenure-track faculty, one of whom will serve as the GPD. In Year 1, the first of the new faculty members will join the department, and the GPD will be selected from among the existing full-time faculty population. By Year 2, the second and third new faculty lines will be funded to acquire instruction for the second year of the graduate program and to replace some of the instruction displaced by the administrative duties of the GPD.

*Staff.* The M.A. program will require a half-time AA and a part-time work-study student.

*Other costs.* No additional library resources, including electronic resources, are needed. The graduate program office space will be furnished with a computer, printer and scanner. Space will be required for offices for three new tenure-track faculty and a half-time AA, and for a small graduate student work space with electronic access to graduate course and research software. Marketing and development of printed and web resources will require a start-up cost of \$1,500 and an additional yearly expenditure of \$1,000. Teaching/Research Assistants will require \$15,036 each in stipends.

## **EXTERNAL REVIEW**

Howard Chernick, Department of Economics, Hunter College/CUNY, and Martha Starr, Department of Economics, American University, reviewed the proposal and found that the proposed program's emphasis on urban and regional economics makes it well-differentiated from other masters in economics programs in the Greater Boston area and that it builds on the strengths of the economics faculty at UMB. The reviewers noted that the knowledge, skills, and experiences students will acquire are in alignment with growing demand for versatile applied economists.

In regard to the curriculum, the reviewers recommended that two classes be re-titled; that the curriculum emphasize aspects of macroeconomics most relevant to urban and regional issues; and one reviewer suggested that the capstone project be replaced with a master's thesis requirement. The reviewers also recommended that a new faculty hire should include a public-finance economist whose research uses large data bases and applied econometrics. They noted that the computing resources presently available are "clearly not adequate" for the proposed program and strongly recommended that students be required to purchase laptops with the appropriate software. The reviewers encouraged UMB to err on the selective side when making admissions decisions and to track graduates' employment opportunities and work performance.

UMB re-titled the two courses as recommended by the visiting committee and incorporated a greater focus on urban macroeconomics into the curriculum. A master's thesis option will be made available to students who wish to gain additional advanced analytic and research skills. UMB will take into consideration the reviewers' suggestions for new faculty hire qualifications. UMB will make wireless coverage more broadly available, and will replace the computers in the graduate resource center ensuring that the new computers have the memory and capacity to manage the large datasets used in economic research. The University will consider having each student purchase a laptop. UMB will collect and maintain data on the employment histories of its alumni.

## **STAFF ANALYSIS AND RECOMMENDATION**

Staff thoroughly reviewed all documentation submitted by the Boston campus, the external reviewers, and the President's Office of the University. Staff recommendation is for approval of the Master of Arts in Applied Economics at the UMB Boston.

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**

<b>Major Required (Core) Courses (Total courses required = 7)</b>		
Course Number	Course Title	Credit Hours
Econ 601	Applied Microeconomics	3
Econ 602	Applied Macroeconomics	3
Econ 651	Applied Econometrics	4
Econ 652	Quantitative Analysis I	4
Econ 610	Quantitative Analysis II	3
Econ 698	Mentored Research Project	6
Econ 603	Applied Economic Policy Research Workshop	1
	SubTotal # Core Credits Required	24
<b>Concentration Course Choices (Total courses required = 1) (attach list as needed)</b>		
Econ 613	Urban Economic Environment	3
Econ 618	Economics of State and Local Governments	3
Econ 621	Economics of Urban Inequality and Poverty	3
	SubTotal # Concentration Credits Required	3
<b>Other/Elective Course Choices (Total courses required =1) (attach list as needed)</b>		
Econ 624	Economic Development	3
Econ 633	Regulatory Economics	3
Econ 640	Economics of Non-Profit Organizations	3
Econ 643	Economics of Race and Gender	3
	Other Elective Course	3
	SubTotal # Elective Credits Required	3
<b>Curriculum Summary</b>		
Total number of courses required for the degree		9
Total credit hours required for degree		30
<b>Prerequisite or Other Additional Requirements:</b>		
BA or admission to UMB BA/MA program, calculus, at least five economics courses, including intermediate microeconomics and macroeconomics and economic statistics (all with grades of B or better).		

Other/Elective Course Choices, continued

Econ 680	Health Economics	3
Econ 685	Economics of Education	3
Econ 690	Labor Economics in a Global Economy	3
EEOS 670	Environmental Economics	3
EEOS 675	Economics of Renewables: Marine and Energy Resources	3
PPOL-G 745	Advanced Quantitative Methods	3
SOCIOL 655	Evaluation Research	3
CSR 501	Survey Research Methods	3



Attachment B

Budget

<b>One Time/ Start Up Costs</b>		<b>Annual Expenses</b>			
	<b>Cost Categories</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>
\$30,000	Full Time Faculty (Salary & Fringe)	\$103,936	\$322,721	\$332,403	\$342,375
	Part Time/Adjunct Faculty (Salary & Fringe)	\$5,000	\$5,000	\$5,000	\$5,000
	Staff	\$30,918	\$31,948	\$32,861	\$33,802
	General Administrative Costs	\$1400	\$2800	\$2800	\$2800
	Instructional Materials, Library Acquisitions	N.A.	N.A.	N.A.	N.A.
Computer \$1100 Printer \$ 800 Scanner \$ 300	Facilities/Space/Equipment	One new faculty office, grad student work space, office space for half-time AA	Two more new faculty offices		
	Field & Clinical Resources	N.A.	N.A.	N.A.	N.A.
\$1500	Marketing	\$1,000	\$1,000	\$1,000	\$1,000
	Other (Specify) GPD stipend Research/Teaching Assistants	\$2,000	\$2,000	\$2,000	\$2,000
		\$15,036	\$30,072	\$30,072	\$30,072
\$33,700	<b>TOTALS</b>	\$159,290	\$395,541	\$406,136	\$417,049

<i>One Time/Start-Up Support</i>	<i>Revenue Sources</i>	<i>Annual Income</i>			
		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>
	Grants				
	Tuition	\$16,200	\$35,640	\$43,740	\$56,700
	Fees	\$58,688	\$129,113	\$158,456	\$205,406
	Departmental				
	Reallocated Funds				
	Other (specify)				
	UMB budget/faculty salary & benefit	\$103,936	\$322,721	\$332,403	\$342,375
	UMB Office Grad Studies: GPD, R/TA stipends	\$17,036	\$32,072	\$32,072	\$32,072
	<b>TOTALS</b>	\$195,860	\$519,546	\$566,671	\$636,553

## UMB BUDGET NARRATIVE

### I. COSTS

*Faculty.* The M.A. program will require three new full-time tenure-track faculty, one of whom will serve as the Graduate Program Director (GPD). The budget assumes one-time start-up costs of \$10,000 per new faculty. In Year 1, the first of the new faculty members will join the department, and the GPD will be selected from among the existing full-time faculty population. By Year 2, the second and third new faculty lines will be funded to acquire instruction for the second year of the graduate program and to replace some of the instruction displaced by the administrative duties of the GPD. Year 2 assumes the existing contractual 3.5% increase in compensation. Since contracts for Years 3 and 4 have not yet been adopted, increases of 3% are assumed in each of these years. It is expected that a currently employed non-tenure-track faculty member specializing in geographic information systems (GIS) will teach the one-credit Applied Economic Policy Research Workshop. The stipend for this person will be \$5,000 to teach the Workshop once each year. Finally, under the *Other costs* category, the GPD stipend is expected to be \$2,000 per year.

*Staff.* The M.A. program will require a half-time Administrative Assistant. (Our current full-time AA administers the department's undergraduate program.) Salary and benefits will be about \$29,418 in the first year, with increases in the following years based on the same assumptions underlying full-time faculty compensation. In addition, we will need a part-time work-study student to assist the graduate program AA at 20 hours per week, which adds \$1,500 per year to the staff budget.

*Other costs.* General administrative costs, including office supplies, telephone and photocopying of instructional materials are expected to amount to \$1,400 in the first year, and to double once a full contingent of students has been admitted for the second year. We have excellent library resources, including electronic resources, and will not need additional acquisitions. A one-time cost of \$2,200 will be incurred to furnish the graduate program office space with a computer, printer and scanner. Space will be required for offices for three new tenure-track faculty and a half-time AA, and for a small graduate student work space with electronic access to graduate course and research software. Marketing and development of printed and web resources will require a start-up cost of \$1,500 and an additional yearly expenditure of \$1,000. Teaching/Research Assistants will require \$15,036 in stipends each. We assume one R/TA for the first year of operations and two for the remaining years.

*Impact on department budget.* The impact is expected to be negligible since we have requested sufficient M.A. resources for the first several years of the program to avoid depleting our undergraduate program.

### II. REVENUES

*Grants.* Tenure-track faculty raise grant funds every year, and the department will consider the grant-funding potential of new faculty hires. We expect additional grant funding to become more accessible with the addition of our new graduate program and faculty. However, we decline to project grant revenues here because the identity of new faculty hires will greatly influence this estimate.

*Tuition and fees.* We expect the new program to start small but to add students as the program and its graduates become better known. The tuition and fees estimated here assume 10 students in the first year, 22 in the second, 27 in the third, and 35 in the fourth year. Furthermore, these figures are based upon the assumption that all students will be

Massachusetts residents, and that they will take 15 credits per year over two years. We do expect to attract out-of-state and/or international students once our program becomes better known, which will bring in added tuition and fees. We assume part-time students (15 credits per year), expecting that most students will retain their full-time employment positions.

*Other Revenues.* The UMB administration has committed to funding new faculty salaries and benefits out of its annual budget. The UMB Office of Graduate Studies will fund the stipends for the GPD and the R/TA positions.