

**BOARD OF HIGHER EDUCATION**

**REQUEST FOR COMMITTEE AND BOARD ACTION**

**COMMITTEE:** Academic Affairs

**NO:** AAC 18-01

**COMMITTEE DATE:** October 24, 2017

**BOARD DATE:** October 31, 2017

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**APPLICATION OF THE MASSACHUSETTS MARITIME ACADEMY TO AWARD THE MASTER OF SCIENCE IN MARITIME BUSINESS MANAGEMENT**

**MOVED:** The Board of Higher Education hereby approves the application of the **Massachusetts Maritime Academy** to award the **Master of Science in Maritime Business Management**.

Upon graduating the first class for this program, the Academy 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., Associate Commissioner for Academic Affairs and Student Success

## **BOARD OF HIGHER EDUCATION**

**October 2017**

### **Master of Science in Maritime Business Management.**

#### **INTENT AND MISSION**

The Massachusetts Maritime Academy (MMA) proposed Master's of Science program in Maritime Business Management (MSMB) closely aligns with the MMA mission to provide a quality education for graduates serving in the merchant marine, the military services, and those who serve the interests of the Commonwealth, nation and global marketplace. MMA included the MSMBM as a strategic goal in its' 2012-2016 Strategic Plan. The proposed MSMBM is expected to be congruent with the institutional mission, the 5-year strategic plan and provides a segue to the existing undergraduate program in International Maritime Business.

The intent of the proposed MSMB is to provide students with the knowledge and skills needed for a variety of global senior management and leadership positions and the ability to implement creative and effective solutions to maritime business problems and opportunities. It is expected that the proposed program will prepare graduates for careers in maritime business and supply chains locally, regionally, and globally.

The proposed program obtained all necessary governance approvals on campus and was approved by the Board of Trustees of the Massachusetts Maritime Academy on June 7, 2013. The required letter of intent was circulated on February 27, 2017. No comments were received.

#### **NEED AND DEMAND**

##### *National and State Labor Market Outlook*

MMA expects that the proposed program will address the growing need for maritime business and supply chain management professionals who are capable of managing and coordinating business and shipment of products across water through all facets of a supply chain. MMA asserts that almost 90% of all goods travel at some point by water and that the number of US and regional supply chain programs devoted to the maritime portion of the local and global economy are few. In developing the program MMA found that a Google search showed an increasing demand for maritime business specialists and that Fortune.com predicted an exponential rise in supply chain positions, estimating 14 million by 2018. MMA pointed out that deregulated electric utilities, public utilities, National Grid, and Amazon are a few of the local employers that are in need of supply chain executives.

##### *Student Demand*

Over 300 MMA student respondents to market survey indicated that 32% of graduates, 55% of undergraduates, and 66% of international students, expressed a high or very high interest in the proposed program. Additionally, 56% of graduates, 75% of

undergraduates, and 72% of international students indicated that they intend to pursue a graduate degree in the next five years.

In addition MMA reports that fifteen years of panel data from their MS in Financial Management (MSFM) program, and ten years of data from the MS in Emergency Management (MSEM) program suggest that 90% of the demand for the proposed MSMB program will come from within Massachusetts.

In a study administered by the MMA International Maritime Business Department, a sample size of 324 suggested a significant demand for a master's degree program in maritime business management. In addition MMA reports that fifteen years of panel data from their MS in Financial Management (MSFM) program, and ten years of data from the MS in Emergency Management (MSEM) program suggest that 90% of the demand for the proposed MSMB program will come from within Massachusetts.

## **OVERVIEW OF PROPOSED PROGRAM**

### **Program Overview**

MMA developed the MSMB program over a four-year period as a campus-wide collaborative effort with the Academic Dean, the Dean of Graduate and Continuing Education, the International Maritime Business Department faculty and with input gathered from employers, prospective students, the Graduate Education Council, the IMB External Advisory Committee, and MMA graduate and undergraduate alumni. Through this process MMA determined that the proposed program would be designed to prepare students for executive leadership responsibilities for complex global transportation systems in maritime business and supply chain management in both the public and private sectors.

It is planned that the proposed MSMB will run annually beginning in October and will comprise ten, 3-credit courses and one, 4-credit capstone experience. The program will run as a cohort-centered, executive-formatted model at the Embassy Suites Waltham Woods Conference Center in Waltham MA on Friday evenings and Saturdays for 31 half-weekends over an 18 month period.

### *Duplication*

While there are many general management programs in the New England region, the proposed MSMB program is a targeted management program with a maritime emphasis on global trade. Maine Maritime Academy offers two similar degrees: Master of Science in Global Logistics and Maritime Management and an online Master of Science in International Logistics Management. The face-to-face, cohort-centered, delivery model of the proposed program is expected to attract students within a 100-mile radius of the Greater Boston area and is not expected to target the same students as the Maine programs.

## ACADEMIC AND RELATED MATTERS

### *Admission*

Candidates must have completed a baccalaureate degree to be eligible for admission to the proposed program. Admission requirements for the proposed MSMB program include the completion of the Massachusetts Maritime Graduate Online Application, official transcripts of academic coursework from all accredited schools attended, a 300 word statement of the candidates' professional objectives, two professional letters of recommendation, and a current resume. The MSMB program may take transfer students or students who will finish their undergraduate degree by December of the year in which they matriculate into the program acceptance is determined on an individual basis.

### Program Enrollment

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
New Full Time	24	24	24	24
Continuing Full Time	0	23	23	23
New Part Time	0	0	0	0
Continuing Part Time	0	0	0	0
<b>TOTALS</b>	24	47	47	47

### *Curriculum (Attachment A)*

MMA plans that the proposed MSMB curriculum will be modeled on that of the existing MSFM and MSEM programs and will be comprised of nine 3-credit courses, including two general MBA classes combined with seven targeted maritime business classes; and one 4-credit capstone course in maritime business to include extensive research, presentations and written submissions related to core maritime business processes. As an executive-formatted management master's degree, there are no clinical placements or internships planned.

## RESOURCES AND BUDGET

### *Fiscal (Attachment B)*

The proposed MSMB program costs are based on those of MMA's 31-credit MSFM program offered at the Embassy Suites Waltham Woods Conference Center. Year 1 denotes cohort 1 and part-time faculty salaries are based on the current collective bargaining agreement of \$1,531 cost per credit hour per Professor and multiplied by the credit hours and the number of professors for the entire program. Staff indicates the cost of two staff assistants. General Administrative Costs estimate graduate outreach salaries and marketing costs are based on an average of what MMA incurs annually for television spots and web banner ads for the MSFM program. Lodging is based on MMA's current contract with the Embassy Suites in Waltham with an assumption that 24

students will be staying for 31 Friday evenings over 18 months. Facilities line includes the use of the classrooms and break-outs, breakfast, lunch, dinner and breaks and is based on MMA's existing contract. Revenues are expected to include \$4000 in tuition and \$26,927 in fees from 24 students in year 1 and that costs and revenue will increase by 3% each year.

*Faculty and Administration (Attachment C)*

It is planned that the proposed MSMB will be administered through the MMA Division of Graduate and Continuing Education (DGCE). All faculty will be considered adjunct and an additional staff assistant has been built into the budget.

*Facilities, Library and Information Technologies*

Although the program will be run at the Embassy Suites Waltham Woods Conference Center in Waltham MA, all students will have both on-line and in-person access to the library and information technologies at MMA. No additional library staffing is planned or required.

*Affiliations and Partnerships*

The International Maritime Business External Advisory Committee consists of senior executives from a broad range of industries and a complete list of individuals and affiliations was included in the application materials.

**PROGRAM EFFECTIVENESS**

<b>Goal</b>	<b>Measureable Objective</b>	<b>Strategy for Achievement</b>	<b>Timetable</b>
1. Achieve regional recognition for excellence in maritime business education.	Attract and retain the highest quality faculty <sup>1</sup>	Provide support for online congruent case studies, software and guest speakers. Implement timely evaluations and review them with the faculty members directly. Pay above market rates for faculty.	Within the first five years
	Attract and retain full cohorts of the highest quality students <sup>2</sup>	Hire the best faculty. Provide the best facilities, implement	Within the first five years

<sup>1</sup> MMA measures quality via ability and motivation. Ability is calculated by the level of highest degree attained combined with work and teaching experience. Performance is evaluated after each course. Motivation is calculated by individual interviews.

		strategic marketing plan.	
	Obtain regional accreditation for the program.	Complete NEASC application and substantive change documentation.	Within the first five years
2. Provide the highest quality cadre of maritime business professional master's graduates each year for the Commonwealth and region.	Successful master's degree completion of each cohort – including the capstone course.	Provide dedicated faculty; integrate cutting-edge case studies. Provide the highest quality facilities, support and resources.	Starting day one
	Graduate 90 students over the first five years at a graduation rate above 80 percent.	Encourage faculty to provide quantitative feedback for each student immediately following the first weekend of each class.	Starting with the first weekend of the first class
	An 80 percent placement rate in the field within one year after graduation.	Implement graduate career fair. Market program success. Use professional associations to send employment opportunities to the students.	An 80 percent placement rate in the field within one year after graduation
3. Provide master's graduates with career advancement skills in the rapidly developing and changing maritime business field.	Successful master's degree completion of each cohort – including the capstone course.	Provide highest quality executive-formatted, cohort-centered program that provides accelerated development of maritime business competencies equivalent to multiple years of maritime business experience.	Within two years of program launch

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<sup>2</sup> MMA measures the ability of incoming students by undergraduate degree, GPA over 3.0 and either GRE/GMAT scores above 70% or outstanding work experience and recommendations, undergraduate GPA's over a 3.0 and GMAT/GRE scores above the 70<sup>th</sup> percentile. A written student statement is used to calculate student motivation.

## ***EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE***

The proposed program was reviewed by Dr. Kevin Lopes, Military Professor of Management at the United States Coast Guard Academy in New London, CT and by Dr. William Gates, Dean of the Graduate School of Business and Public Policy at the Naval Postgraduate School in Monterey, CA.

The team found that the key strengths of the program included its' alignment with the institutional mission, the program's niche market differentiation and the strong demand signal for the program in Massachusetts. The team noted that the proposed MSMB program supports the MMA mission to provide a quality education for graduates serving in the merchant marine, the military services, and those who serve the interests of the Commonwealth, nation and global marketplace. They found this alignment with the institutional mission also serves to differentiate the program from competitors providing general supply chain management or logistics degree programs. The reviewers also suggested that the proposed program should add administrative support for the graduate program assessment and the addition of a full time faculty line.

MMA responded in agreement with the reviewers recommendations and have built an administrative position into the program to support assessment. MMA concurred with the idea of an additional full-time faculty member for the program and responded that DGCE will conduct outreach and remain open to MMA faculty who may wish to serve the proposed program in this capacity.

## **STAFF ANALYSIS AND RECOMMENDATION**

Staff thoroughly reviewed all documentation submitted by the **Massachusetts Maritime Academy** and the external reviewers. Staff recommendation is for approval of the proposed **Master of Science in Maritime Business Management** program.

**ATTACHMENT A: CURRICULUM**

<b>Major Required (Core) Courses = 10 (Total # of courses required = 10)</b>		
<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>
MB-5100	Economics of the Maritime Industry	3
MB-5110	Maritime Law, Policy and Regulations	3
MB-5120	Project Management in Maritime Business	3
MB-5130	Global Logistics and Supply Chain Management	3
MB-5140	Finance and Risk Management	3
MB-5150	Operations Management in Maritime Business	3
MB-5160	Transportation Security Management	3
MB-5170	Organizational Behavior	3
MB-5180	Maritime Leadership and Strategic Management	3
MB-5200	Capstone in Maritime Business	4
	<b>Subtotal # Core Credits Required</b>	<b>31</b>
<b>Elective Courses (Total # courses required = 0)</b>		

**ATTACHMENT B: BUDGET**

One Time / Start Up Costs	Cost Categories	Annual Expenses			
		Year 1	Year 2	Year 3	Year 4
	Full Time Faculty (Salary & Fringe)	N/A	N/A	N/A	N/A
	Part Time Faculty (Salary & Fringe)	\$85,736.00	\$88,308.00	\$90,957.00	\$93,686.00
	Staff	\$80,000.00	\$85,000.00	\$90,000.00	\$95,000.00
	General Administrative Costs	\$20,000.00	\$25,000.00	\$30,000.00	\$35,000.00
	Instructional Materials, Library Acquisitions	\$28,080.00	\$29,160.00	\$30,240.00	\$31,320.00
	Facilities/Space/Equipment	\$89,280.00	\$93,000.00	\$96,720.00	\$100,440.00
	Field & Clinical Resources	N/A	N/A	N/A	N/A
	Marketing	\$70,000.00	\$75,000.00	\$80,000.00	\$85,000.00
	Lodging	\$81,840.00	\$85,560.00	\$89.28	\$93,000.00
	<b>TOTALS</b>	<b>\$454,936.00</b>	<b>\$481,028.00</b>	<b>\$418,006.00</b>	<b>\$533,446.00</b>

One Time / Start Up Support	Revenue Sources	Annual Income			
		Year 1	Year 2	Year 3	Year 4
	Grants	N/A	N/A	N/A	N/A
	Tuition	\$96,000.00	\$98,880.00	\$101,846.00	\$104,902.00
	Fees	\$646,248.00	\$665,635.00	\$685,605.00	\$706,173.00
	Departmental	N/A	N/A	N/A	N/A
	Reallocated Funds	N/A	N/A	N/A	N/A
	Other (specify)	N/A	N/A	N/A	N/A
	<b>TOTALS</b>	<b>\$742,248.00</b>	<b>\$764,515.00</b>	<b>\$787,451.00</b>	<b>\$811,075.00</b>

**ATTACHMENT C: FACULTY**

<b>Faculty Member</b> (Name, Degree and Field, Title, Tenure Status)	<b>Check if Tenured</b>	<b>Courses Taught</b> (C) to indicate core course. (OL) next to any course currently taught online.	<b>Number of Sections</b>	<b>Division of College of Employment</b>	<b>Full- or Part-time in Program</b>	<b>Full- or Part-time in other department or program</b> (Please specify)	<b>Site where individual will teach program courses</b>
<b>McDonald, James</b> <ul style="list-style-type: none"> <li>• Ed.D Higher Education Administration</li> <li>• Adjunct Professor</li> <li>• Non-tenured</li> </ul>		Capstone Course	1	DGCE	Part-time	Yes: MSFM & MSEM Programs	Waltham
<b>Pande, Ashok</b> <ul style="list-style-type: none"> <li>• Ph.D Transportation Economics</li> <li>• Adjunct Professor</li> <li>• Tenure-track</li> </ul>	✓	Maritime Leadership and Strategic Management	1	DGCE	Part-time	No	Waltham
<b>Krishnasamy, Raguraman</b> <ul style="list-style-type: none"> <li>• Ph.D</li> <li>• Adjunct Professor</li> <li>• Tenure-track</li> </ul>	✓	Macroeconomics and Shipping	1	DGCE	Part-time	No	Waltham
<b>Szwed, Paul</b> <ul style="list-style-type: none"> <li>• Juris Doctor</li> <li>• Adjunct Professor</li> <li>• Tenure-track</li> </ul>	✓	Global Logistics and Supply Chain Management	1	DGCE	Part-time	No	Waltham
<b>Bagaglio, John</b> <ul style="list-style-type: none"> <li>• Masters Facilities Management</li> <li>• Adjunct Professor</li> <li>• Non-tenured</li> </ul>		Maritime Project Management	1	DGCE	Part-time	No	Waltham

<b>Dinning, Michael</b> <ul style="list-style-type: none"> <li>• Masters Urban Planning</li> <li>• Adjunct Professor</li> <li>• Non-tenured</li> </ul>		Transportation Security Management	1	DGCE	Part-time	No	Waltham
<b>Lehan, Michael</b> <ul style="list-style-type: none"> <li>• Ed.D Higher Education Administration</li> <li>• Adjunct Professor</li> <li>• Non-tenured</li> </ul>		Finance and Risk Management	1	DGCE	Part-time	Yes: MSFM & MSEM Programs	Waltham
<b>Massimo, Thomas</b> <ul style="list-style-type: none"> <li>• Juris Doctor</li> <li>• Adjunct Professor</li> <li>• Non-tenured</li> </ul>		<ul style="list-style-type: none"> <li>• Organizational Behavior</li> <li>• Maritime Law, Policy, and Regulations</li> </ul>	2	DGCE	Part-time	Yes: MSFM & MSEM Programs	Waltham Campus
<b>O'Brien, Ronald</b> <ul style="list-style-type: none"> <li>• Masters Facilities Management</li> <li>• Adjunct Professor</li> <li>• Non-tenured</li> </ul>		Operations in Maritime Business	1	DGCE	Part-time	Yes: MSFM	Waltham Campus