

BOARD OF HIGHER EDUCATION
REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Academic Affairs

NO.: AAC 13-05

COMMITTEE DATE: October 9, 2012

BOARD DATE: October 16, 2012

**APPLICATION OF UNIVERSITY OF MASSACHUSETTS LOWELL TO AWARD THE
MA and MS IN SECURITY STUDIES**

MOVED: The Board of Higher Education hereby approves the application of **University of Massachusetts Lowell** to award the **MA and MS in Security Studies**. Upon graduating the first class for this program, the college 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: Aundrea Kelley, Deputy Commissioner for P-16 Policy and Collaborative Initiatives

BOARD OF HIGHER EDUCATION
October 2012
University of Massachusetts Lowell
Master of Arts and Master of Science in Security Studies

INTENT AND MISSION

The University of Massachusetts Lowell has filed an expedited application to offer a Master of Arts and Master of Science in Security Studies. The application was approved by the University of Massachusetts Board of Trustees on September 19, 2012. These proposed MA and MS in Security Studies (MAMS/SS) degree programs are aligned with the institutions' mission priorities as articulated in *UMASS Lowell 2020: A Strategic Plan for the Next Decade*. This plan describes how UMass Lowell (UML) will "leverage existing academic activities to develop new degree programs, especially those that are interdisciplinary". The institution recognizes that in order to fulfill this strategic goal three interrelated and specific goals must be achieved:

- Attract and produce outstanding scholars across many disciplines.
- Strengthen current graduate and research programs through increased inter-disciplinary, faculty collaboration and through enhanced experiential learning.
- Develop new distinctive, interdisciplinary programs in the areas of state and national need.
- Increase graduate enrollment by expanding recruitment of both U.S. and international students.

The required letter of intent was circulated on June 26, 2012. No comments were received. The proposal has obtained all necessary governance approvals on campus and was approved by the University of Massachusetts Board of Trustees on September 19, 2012.

NEED AND DEMAND

National and State Labor Market Outlook

Projections from many sources indicate significant job growth related to providing public and private security in the Commonwealth, New England, and the U.S. For example, according to data compiled by the federal [Where the Jobs Are 2009](#) report, the U.S. government will hire 52,077 new personnel nationwide in security-related fields such as intelligence analysis, security administration, and transportation security by the end of 2012. This does not include the 1,561 projected new security specialists that the Department of State has indicated in the next 5 years it will need to work at U.S. embassies around the world. Overall, this report indicates that security and protection jobs will be the second highest area of growth in the federal sector in the next several years. There are already thousands of TSA, DHS and other government agency employees throughout the Northeast who require relevant graduate credentials for

career advancement. The UML MAMS/SS program would be responsive to the needs of security professionals in government.

The institution reports that across New England and within Massachusetts, there is a broad range of public and private sector employment opportunities for security studies graduates. As the region's infrastructure grows to accommodate an increasing population the institution believes the protection of that infrastructure will require new personnel with security knowledge and a developed capacity for critical analysis. Transportation security is an area of projected growth both regionally and nationwide. New professionals will be needed to manage the increasingly complex security challenges at regional and international airports, commuter and commercial railways, maritime ports, and roadways of the Commonwealth and the broader region.

Student Demand

The proposed MAMS/SS program recognizes numerous political science, sociology, criminal justice and international relations undergraduate programs at public and private institutions throughout New England are graduating students who will require an advanced degree before they can pursue a career in security studies-related fields. In addition, the proposed MAMS/SS program intends to recruit students both nationally and internationally. It is expected that about 60% of the applicants will be recruited from MA and New England. It is expected that 25% will come from national recruitment through networks with colleagues in other programs and 15% will be international recruits.

Duplication

The proposal maintains that there is no comprehensive security studies graduate degree program offered at any public or private institution in Massachusetts. UML is the only public institution that provides a graduate education credential in security studies, through a certificate program offered in the Department of Criminal Justice and Criminology. Among the public institutions in the region, there are a few programs which offer something similar, such as the McCormack School of Policy Studies at the University of Massachusetts Boston has a Department of Conflict Resolution, Human Security and Global Governance, where students are offered similar courses to those described in this proposal, but a graduate degree or certificate program is not offered. The Massachusetts Maritime Academy offers an 18-month M.S. degree in Emergency Management with two courses in that program similar to courses listed in this proposal. The University of New Hampshire offers an MA degree in Justice Studies, but there are no similar courses in this proposal.

Only one institution in New England currently offers the M.S. in National Security and Public Safety. Several other private institutions in the region offer security studies-related education and research programs including concentrations in Homeland Security, Information Protection and Security, National Security or National Security Administration. Most of these programs are focused on research and policy analysis, and offer several courses and lecture series related to various security studies topics, but there is no MA or MS degree in Security Studies. Nationally there are 23 MA or MS programs in Security Studies or a sub-area of security studies and 13 research centers for Security Studies.

ACADEMIC AND RELATED MATTERS

Admission	First Year	Transfer
Admission Requirements (both MA and MS) [CORI checks for all enrollees] _____	1. GRE scores for Verbal and Quantitative in the top 20th percentile. 2. International students also submit TOEFL with acceptable scores	1. Graduate GPA = at least 3.5. 2. GRE scores for Verbal and Quantitative = top 20th percentile. 3. International students also submit TOEFL with acceptable scores.
	MS Degree	MA Degree
Additional Admission Requirements Both first year and transfer _____	1. Undergraduate major in a science, technology or engineering discipline 2. Undergraduate GPA = at least 3.0.	1. Undergraduate major in any discipline 2. Undergraduate GPA = at least 3.25.

Projected Enrollment

The university projections for enrollments are as follows:

# Students	Year 1	Year 2	Year 3	Year 4
<i>Enrollment Goals</i>				
New FT	23-40	40	40	40
Continuing FT		40	40	40
New PT	12-20	12-20	12-20	12-20
Continuing PT		12-20	24-40	36-50
Total	35-60	72-120	89-140	104-150

Curriculum (Attachment A)

The proposed curricula are for 30 credit master degree programs that integrate learning in multiple disciplines. Students will have two different degree options to pursue: a Master of Science degree, which will emphasize the intersection of security and applied technologies, engineering and the hard sciences or a Master of Arts, which will emphasize the policy, social science, behavioral science and legal dimensions of security studies.

All students in either program will take a unified set of 7 core courses (21 credits) which will develop advanced competence in major categories of national and global security threats; intelligence collection and analysis; scientific and technical aspects of security, and limitations thereof; and research methods used in the field of security studies. Through these courses, students will examine a broad range of interdisciplinary topics such as national and homeland security policies; critical infrastructure protection strategies; border, port and transportation security; the Commonwealth's Homeland Security Strategy and Regional Security Strategic Plans, hazard mitigation and preparedness plans, and Fusion Center; weapons of mass destruction; intelligence gathering and analysis; morality and ethics of interrogation methods; and a comprehensive review of national and global security challenges. At least two of these core courses will be taught collaboratively by faculty from different departments, reflecting the University's commitment as a pioneer in the development of interdisciplinary education. Two of the required courses will focus on developing a capstone research project or a security-related science or technology project. Students will also be able to substitute a semester-length Security Studies Practicum and one additional elective in lieu of the project requirement. A security studies policy or practical internship, and a written paper assessing the practicum experience would replace the project.

In addition to these core courses, MS degree students will be required to complete a minimum of 3 elective courses (9 credits) offered in the College of Engineering, College of Sciences, and/or College of Management. These elective courses are offered in groups or "concentrations" for students seeking to focus their studies on CBRNE security, cyber security, or critical infrastructure security. Only students with an undergraduate degree in a relevant scientific or technological discipline will be considered for admission to certain concentrations within the MS in Security Studies program, and these admissions decisions will be made by the sciences and engineering faculty members of the Security Studies program team. Target audiences for the MS degree program include: emergency response practitioners in homeland security, law enforcement and national security agencies, and engineering, science, or information technology professionals looking to supplement their technical knowledge with an understanding of critical security and law enforcement issues.

Students pursuing the MA degree would be required to complete a minimum of 3 elective courses (9 credits) offered in the College of Fine Arts, Humanities and Social Sciences and/or College of Management. These elective courses are offered in groups or "concentrations" for students seeking to focus their studies on international security, industrial and economic security, or homeland defense. Target audiences for the MA degree program include public policy analysts, researchers, program managers and practitioners in homeland security, law enforcement and national security agencies; private sector professionals in risk assessment, security consulting, defense industry firms, academic think tanks, global forecasting, international development and related fields; and future doctoral degree program candidates in relevant disciplines within the humanities, behavioral sciences, and social sciences.

All the core courses for the proposed MA/MS degree programs, and many of the elective courses, are currently offered both on campus and online. The proposed program would offer a broad range of experiential learning opportunities both regionally and through the

University's international strategic partnerships with other institutions. Other curricular options include collaboration with the University of Massachusetts School of Marine Sciences, the University of Massachusetts Medical School and the McCormack School of Policy Studies at UMass Boston. And in addition to teaching, faculty at all the University of Massachusetts campuses would be invited to collaborate on major funded research projects in the area of security studies.

RESOURCES AND BUDGET

All learning facilities are equipped with appropriate technology and workstations and are replaced every four years from a central budget at UML.

Faculty and Administration

The program will be led by a multidisciplinary team of faculty employed in departments throughout the university who will collaborate on admissions review, curriculum design and assessment. Their decisions will guide the daily activities of a Program Director, currently an associate professor in the UML Department of Criminal Justice and Criminology. The director will supervise the program and serve as its central point of contact.

No new full-time faculty members are included in the proposal to implement these degree programs. Funding is requested to hire adjunct faculty to provide course release support for faculty to design and teach new courses within this interdisciplinary program. Additional expenses involve the hiring of adjunct faculty to design and teach specialized online courses in the program.

Twelve faculty members of the interdisciplinary Graduate Faculty Group involved in developing this program reflect a mix of tenured and tenure track faculty, including 5 Full Professors and 4 Associate Professors and 3 Assistant Professors. They represent 8 academic departments across UML, including Biology, Civil and Environmental Engineering, Chemical Engineering, Criminal Justice, Electrical and Computer Engineering, Environmental, Earth and Atmospheric Sciences, and Political Science. STAFF: For the initial start-up period, the Program Director will be assisted by full-time administrative staff in the Department of Criminal Justice and Criminology.

Affiliations and Partnerships

MAMS/SS program will also collaborate with faculty and departments across the University of Massachusetts system as interest in this new program grows.

Professional Development

A concept paper regarding the proposed programs was circulated to all the deans and department heads at UML, and a series of meetings was held with faculty culminating in a formal preliminary proposal. This internal program development process was coordinated by a Graduate Faculty Group with members from 8 departments and 3 different colleges across the institution. An interdisciplinary graduate program is expected to be a competitive venture and one that contributes to the professional development of faculty and students.

Library and Information Technology

The Library and Information Technology facilities are reported to be sufficient to sustain the proposed program. The Library has extensive electronic resources. UML has the resources to support faculty in the development of web based teaching tools and courses. UML is a member of the Inter- University Consortium for Political and Social Research (ICPSR). This organization provides access to major national and international databases and research training for faculty and graduate students. UML has considerable computer and software resources available. Faculty and students have access to campus-wide software licenses for conducting data analysis including SPSS and WEAVE (for quantitative analysis) and NVivo (for qualitative analysis). As needs for new programs arise, the Provost's Office administers a fund for new software and computers. The UMass Lowell Research Administration office has annual competition for research awards. Support is also available for faculty and graduate students presenting at conferences.

Facilities and Equipment

The MAMS/SS program will be housed on South Campus. It is projected that the program will eventually be moved to a new building that will also house the departments of Criminal Justice, Psychology and Nursing. The new building will provide enhanced facilities for offices, classrooms, and seminars and the basement of the new building can accommodate secure storage of sensitive research documents. It is expected to serve as an academic home for this new MAMS/SS program. All classrooms at UML are equipped with appropriate technology; 60 of these are also equipped with lecture-capture technology.

Program Budget (see Attachment B)

The budget for the proposed program is related to the interdisciplinary nature of the security studies field. The proposed program will be offered online through Continuing Studies and it is expected that much of the program costs will be covered by existing infrastructure. It is also seen as a potential source of revenue for the university.

Expenses: As an interdisciplinary program, a majority of the courses that students will take toward completing their MA or MS degree in Security Studies are offered by a variety of departments throughout the university. The introduction of these new degree programs will add a few more students to current courses each semester, with core courses being the only additions. No new full-time faculty members are required to implement this new degree program. Funding is requested to hire adjunct faculty to provide course release support for faculty to design and teach new courses within this interdisciplinary program. Additional expenses involve the hiring of adjunct faculty to design and teach specialized online courses in the program.

Revenue: It is expected that a relatively small cohort of students during the first few years of the program will be admitted. It is also expected that 50% of students will take courses online and 30% will enroll from out of state and within the New England Region

MAMS/SS projects that 40% of all enrollees in Years 1 and 2 will be part-time, seeking credentials for career advancement while working full-time. In subsequent years, it is projected that the number of continuing part-time students will increase. MAMS/SS enrollment projections assume a 90-100% retention and completion rate. Revenue projections are based on 2010-2011 tuition and fees for graduate per credit hour at UML.

PROGRAM EFFECTIVENESS

Goal	Measurable Objective
Enrollees	Attract high quality applicants from a regional, national and international applicant pool.
Retention and Graduation	High retention of enrollees [80-90%] 2. High graduation rate [85-95%]
Job placement	100% job placement
National Ranking	In top ten ranking of US Security Studies Programs

EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

Two external reviewers, Dr. Richard Shultz, Director and Professor of the International Security Studies Program at The Fletcher School Tufts University; and Professor Bruce Hoffman, the Director of the Center for Peace and Security Studies and the Security Studies Program at Georgetown University. Both of the reviewers reported that the concept for the Security Studies program is timely and relevant.

Dr. Schultz found that the proposal is “very well organized and developed in a systematic manner.” The rationale for the program was reported by him to be sound and the supporting evidence more than sufficient. He recommended going forward with the proposed program and suggested that a strong case had been made for the program, along with a unique design that captures and builds on core strengths at UML. Dr Schultz found that the program was designed to reach both those interested in the research/policymaker and the technical/practitioner dimensions of security studies. He found that a thoughtful and imaginative curriculum was developed for each dimension. Dr Schultz recommended careful attention to the size and experiences associated with the online learning components of the program, He additionally emphasized the significance of collaborative teamwork and regular contact among program faculty in an interdisciplinary program.

Dr. Hoffman found that the details of the proposal required further development. He asserted that the proposed degrees appeared to be criminal justice degrees re-branded as a security studies program. Dr. Hoffman raised concerns about how the plan for collaborative interdisciplinary teaching will impact faculty in their ‘home departments’. As

well, he offered criticism about the absence of articulation regarding pedagogic requirements and execution of online instruction.

The institutional response to the reviewers included revisions to the proposal in which the reviewers concerns are addressed by incorporating several changes. The strong reviewer recommendation and institutional agreement to revisions in the curriculum were incorporated into the final proposal for the programs. UML responded that their failure to articulate the strengths of UML in managing interdisciplinary degree programs and providing online education created the need for further explanations, which were added to the revised proposal. The table below indicates further articulation distinguishing the proposed security studies programs from the existing criminal justice program.

Comparison of Criminal Justice and Security Studies Master’s Degree Programs

MA Criminal Justice	Core Area	MAMS/SS
Criminological Theory Foundations Administration of Justice Managing Criminal Justice Organizations OR Law & Public Policy	THEORY POLICY & STRATEGY	Contemporary Security Studies Homeland Security Terrorism & Counter-Terrorism Intelligence Collection & Analysis Scientific & Technological Dimensions of National Security
Research Design Descriptive & Inferential Statistics Optional Master’s Thesis	RESEARCH & CAPSTONE	MA: Research Design Security Studies Capstone research Paper MS: Research Design & methods Security Studies Project Design and Defense
5 elective courses	ELECTIVES	3 elective courses within a specific concentration

STAFF ANALYSIS AND RECOMMENDATION

Staff thoroughly reviewed all documentation submitted by UML and external reviewers. Staff recommendation is for approval of the Master of Arts and Master of Science in Security 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.

Curriculum Outline (Attachment A)

Graduate Program Curriculum Outline
(Insert additional rows as necessary.)

Major Required (Core) Courses (Total # of courses required = 21)		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
CRIM.575	1. Contemporary Security Studies	3
CRIM.574	2. Homeland Security	3
CRIM.572	3. Terrorism and Counterterrorism	3
CRIM.578	4. Intelligence Analysis: Policy and Practice	3
CRIM.591	1. Research Design and Methods	3
CRIM.698	2. Security Studies Capstone I: Data Collection and Analysis	3
CRIM.699	3. Security Studies Capstone II: Writing and Final Presentation	3
	SubTotal # Core Credits Required	21
Elective Course Choices (Total courses required = 3) (attach list of choices if needed)		
	<u>Electives Concentration: International Security</u>	
CRIM.590	Descriptive and Inferential Statistics	3
CRIM.660	International Perspectives on Crime and Justice	3
CRIM.664	Weapons of Mass Destruction	3
CRIM.665	Global Trafficking and Criminal Networks	3
CRIM.666	Seminar on Al Qaida and Affiliated Networks	3
57.512	Community Conflict Resolution	3
57.515	Politics & Economics of Public Policy	3
57.537	Developing Economies	3
New	The U.S. Defense Industry	3
New	Environmental and Energy Security	3
New	Contemporary Challenges in Multinational Corporate Security	3
	<u>Electives Concentration: Industrial and Economic Security</u>	
CRIM.501	Criminological Theory	3
CRIM.540	Criminal Profiling	3
CRIM.571	Domestic Terrorism	3
CRIM.576	Criminal Justice Intelligence & Information Sharing	3
CRIM.650	Violence in America	3
CRIM.654	Elite Deviance and Economic Crime	3

CRIM.658	Issues in Computer Crime and Cybersecurity	3
CRIM.660	International Perspectives on Crime and Justice	3
CRIM.665	Global Trafficking and Criminal Networks	3
CRIM.668	Scientific and Technological Dimensions of National Security	3
CRIM.694	Crime Analysis and Mapping	3
57.537	Developing Economies	3
94.562	Digital Forensics	3
New	The U.S. Defense Industry	3
New	Contemporary Challenges in Multinational Corporate Security	3
<i>Electives Concentration: Homeland Defense</i>		
18.581	Understanding the Massachusetts Contingency Plan	3
19.563	Risk Communication	3
CRIM.570	Crisis and Emergency Management	3
CRIM.571	Domestic Terrorism	3
CRIM.573	Threat Assessment and Risk Management	3
CRIM.576	Criminal Justice Intelligence & Information Sharing	3
CRIM.590	Descriptive and Inferential Statistics	3
CRIM.650	Violence in America	3
CRIM.658	Issues in Computer Crime and Cybersecurity	3
CRIM.664	Weapons of Mass Destruction	3
CRIM.666	Seminar on Al Qaida and Affiliated Networks	3
CRIM.668	Scientific and Technological Dimensions of National Security	3
57.515	Politics and Economics of Public Policy	3
New	The U.S. Defense Industry	3
New	Transportation System Security and Safety	3
SubTotal # Elective Credits Required		9

<i>Curriculum Summary</i>	
Total number of courses required for the degree	10
Total credit hours required for degree	30
<i>Prerequisite, Concentration or Other Requirements:</i>	

Program Budget (Attachment B)

Expenses

One Time/Start up costs	Cost Categories	Annual Expenses			
		Year 1	Year 2	Year 3	Year 4
	FT faculty	0	0	0	0
	PT adjunct	\$36,000	\$48,000	\$48,000	\$48,000
	Staff	\$45,000	\$45,000	\$45,000	\$45,000
	General Admin Costs	0	0	0	0
	Instructional Materials, Library	\$5000.	\$5000.	\$5000.	\$5000.
	Acquisitions				
\$20,000.	Facilities/Space/ Equipment				
	Field & Clinical Resources				
	Marketing	\$5000.	\$5000.	\$5000.	\$5000.
	Graduate Teaching Assistants				
	TOTALS	\$91,000	\$103,000	\$103,000	\$103,000

Revenue Projections Table (V.1 Ambitious)

One Time/Start up costs	Revenue Sources	Annual Expenses			
		Year 1	Year 2	Year 3	Year 4
	Projected enrollment	60	120	140	150
	Grants				
	Tuition	\$239,496	\$478,992	\$541,427	\$559,455
	Fees	\$308,140	\$616,281	\$756,671	\$771,021
	Departmental				
	Totals	\$547,636	\$1,095,247	\$1,298,098	\$1,330,476

Revenue Projections Table (V.2 Modest)

One Time/Start up costs	Revenue Sources	Annual Expenses			
		Year 1	Year 2	Year 3	Year 4
	Projected enrollment	35	72	89	104
	Grants				
	Tuition	\$142,682	\$289,647	\$320,609	\$370,771
	Fees	\$155,406	\$319,307	\$373,183	\$488,202
	Departmental				
	Totals	\$298,088	\$608,955	\$693,792	\$858,974