

BOARD OF HIGHER EDUCATION
REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Academic Affairs

NO.: AAC 12-14

COMMITTEE DATE: November 29, 2011

BOARD DATE: December 6, 2011

APPLICATION OF UNIVERSITY OF MASSACHUSETTS BOSTON TO AWARD THE DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION

MOVED: The Board of Higher Education hereby approves the application of **University of Massachusetts Boston** to award the **Doctor of Philosophy in Business Administration**.

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

December 2011

University of Massachusetts Boston Doctor of Philosophy in Business Administration

INTENT AND MISSION

The University of Massachusetts Boston (UMB) filed an expedited application to offer the Doctor of Philosophy in Business Administration. The proposed Ph.D. intends to generate graduates with deep skills in the tools of business research and practice as well as broad visions of how to employ these tools to improve economic well-being locally and globally. The degree program is designed to prepare students for leadership roles as educators, researchers, business analysts, and organization decision makers. The proposed program will offer three tracks: Organizations and Social Change, Finance, and Management Information Systems which will launch sequentially every two years starting in fall 2012. The proposed Ph.D. program will actively recruit working professionals and researchers who want advanced training in business.

The proposed program derives its goals from the mission of the College of Management (CM) and the mission statement of the University of Massachusetts Boston which emphasize: Inquiry, Creativity and Discovery, Transformation, Diversity and Inclusion, Engagement, Environmental Stewardship and Sustainability, Economic and Cultural Development, and an Urban Commitment. The establishment of a Ph.D. on the Boston campus is also consistent with the campus's policy to offer doctoral degrees that serve current and emerging needs of urban populations, institutions, and the environment by incorporating new knowledge developed through research, new methods yielded by emerging technologies, and insights and opportunities afforded by interdisciplinary, cross-disciplinary and other collaborative enterprises.

The College of Management, accredited by the Association to Advance Collegiate Schools of Business (AACSB), offers an MBA program along with specialized master's degrees. The College has established new business centers including the Financial Services Forums, the Center for Collaborative Leadership, the Center for Sustainable Enterprise and Regional Competitiveness, the Entrepreneurship Center, the Greater Boston Manufacturing Partnership, the Small Business Development Center, and the Venture Development Center.

The proposed program will collaborate with the faculty and the doctorate program in business administration of the College of Management at UMass Lowell such as sharing faculty as advisors and dissertation committee members, as well as in specialized courses in IT, technology management, international management, and finance. The program also intends to draw on qualified faculty members at state universities and other campuses of the UMass system as readers of thesis proposals and dissertations and potential oral examiners where a commonality of expertise and interest exist.

The final proposal was approved by the University of Massachusetts Board of Trustees on June 8, 2011. In accordance with Board of Higher Education guidelines for the expedited review of new programs, a letter of intent for the proposed program was distributed to all public colleges and University presidents and chancellors. No

comments in response were received.

NEED AND DEMAND

The 2003 report of the Doctoral Faculty Commission to the AACSB predicted the demand for business doctorates would grow even as the number of graduates declined. By some estimates, more than 1,000 doctoral vacancies in business schools remain open today, and the shortage is across all the disciplines of management. The Doctoral Faculty Commission recommended increasing the number of doctoral level programs targeted to executives and other working professionals.

More recent studies continue to evidence the demand for Ph.D.s in business administration:

- Starting salaries at B-schools continue to rise briskly. See J. Howard Finch, Richard S. Allen, H. Shelton Weeks, "The Salary Premium Required for Replacing Management Faculty: Evidence From a National Survey," *The Journal of Education for Business*, Volume 85, Number 5 (2010): pp. 264-267.
- B-schools persistently experience failed job searches for new faculty members. See James E. Swartz, Teresa A. Swartz, and Priscilla Liang, "Market Meltdown: Recruiting Qualified Business Faculty," *The Journal of Education for Business*, Volume 82, Number 6 (2007), pp. 337-342.
- B-schools are increasingly looking for innovative ways to alleviate the shortage in doctorally-qualified faculty. See Sarah K. Bryant and Maling Ebrahimpour, "A Survey of Ph.D. Candidate Shortage in Business Schools," *ABD Journal*, Volume 1 (2009), pp. 1-11.

A recent report from the Aspen Institutes Center for Business Education tracked the rise of "sustainability centers" across business schools, profiling 21 new centers. These centers seek graduates with training in the core business disciplines but also expertise and commitment to new topical areas at the intersection of business and society. Graduates from the proposed UMB Ph.D. program would be well positioned for faculty roles at interdisciplinary centers dedicated to conducting rigorous research and translating research into practice, such as the Center for Sustainable Global Enterprise at Cornell University, the University of North Carolina's Center for Sustainable Enterprise, or Oxford University's James Martin Institute.

It is anticipated that the demand for Ph.D.s in Information Systems will also increase. Student demand for training in Information Systems has fluctuated with the booms and busts in IT in the past decade. However, recent trends reflect a steady rise in enrollments and with it a rising demand for faculty, as the digital economy has become well-established and IT issues permeate all the business disciplines, reshaping how managers do their jobs and how business is conducted. In addition, expected retirements among the first wave of MIS faculty also auger a growth in demand for faculty. These factors have been assessed in leading MIS journals.

In addition, Ph.D. graduates from CM will be well positioned to pursue research careers in a variety of applied roles, in government, consultancy, NGOs, or think tanks. A sample of open positions for Ph.D.s in these areas in 2010 includes:

- Director of Research at the Institute for Women's Policy Research in Washington, D.C.;
- Senior Project Manager for Haiti at the American Institutes for Research;

- Chief Technology Officer for E-commerce Investment Banking in Pakistan at the Sasi Foundation;
- Director of Evaluation at SingleStop USA, with a focus on community development and social enterprise;
- Program Director for the American Council for an Energy-Efficient Economy, to direct a research program on behavioral dimensions of energy use and energy efficiency investments.

According to UMB, there is also evidence of demand from international students and mid-career professionals, particularly those from developing and transitional economies, for an interdisciplinary Ph.D. with an applied orientation. As MBAs become more commonplace there is increasing demand for a Ph.D. for senior positions in government and multilateral agencies, consultancies, and other organizations.

The doctoral program in business administration at the University of Massachusetts Amherst (UMA) is different from the proposed UMB program. The UMA concentration in Organization Studies has a complementary appreciation of the role of business in society, while the UMB program will have special emphasis on the urban mission and the well-being of diverse populations. In addition, the UMB program will be strengthened by its connection to campus centers on sustainability, entrepreneurship, and collaborative leadership. The UMA concentration in Finance does not include nor emphasize student research in collaboration with local business/finance leaders, which is central to the UMB Finance track. The UMA program has no track or concentration in Management Information Systems (MIS).

Boston area universities receive more applications from well-qualified Ph.D. applicants than there are slots for them, according to UML.

In a broader assessment of Ph.D. programs nationally and locally, it appears that a new field of Ph.D. programs is emerging to offer some of the elements that will be included in the proposed UMB program. For example, The Heller School for Social Policy at Brandeis recently changed its name to the Heller School for Social Policy and Management and created an MBA program focused on social and environmental issues. The Fielding Graduate School has a program in Human and Organizational Development, focused at the intersection of research and practice. Antioch University has a Ph.D. in Leadership and Change.

ACADEMIC AND RELATED MATTERS

The proposed program will require successful completion of at least 54 credits: 42 credits of coursework plus a minimum of 12 dissertation credits. All students must take three courses. First is the interdisciplinary gateway seminar where students encounter complex dilemmas in business and learn about the range of theoretical approaches and methods that can be mobilized to understand and address these dilemmas. Second, a mandatory professional development course prepares all students for how to explain ideas to a range of audiences (students, colleagues, policy-makers). Finally, all students will take a course on how to frame a research question and craft original research that contributes to knowledge (specifically through the preparation and writing of a dissertation).

Within each track, students will develop expertise in a specific phenomenon or topic, to which they will apply the tools of their home business discipline, along with support from the other business disciplines.

The *Organizations and Social Change* track will respond to the growing interest in issues at the intersection of business and society, such as climate change, workforce diversity, economic development, and globalization. Harnessing the resources and techniques of business and entrepreneurship, often in partnership with the public and non-profit sectors, is an important means to generate innovative solutions to these concerns. This interdisciplinary Ph.D. will prepare graduates to be active academics and leaders in meeting these complex challenges.

The *Finance* track will offer students the unique opportunity to pursue business research in collaboration with local business leaders. The curriculum is designed to leverage a learning-by-doing model (co-op) that includes both apprenticing in a functional area and requiring a mentor-practitioner as an integral part of the design of a Ph.D. thesis. The cornerstone of the finance track is to provide training that facilitates innovations and provides tools for significant research grounded in the business realities of today.

The *Management Information Systems* track will focus on how to use IT/IS to gain sustainable business competitive advantage, to solve business/social problems with matching innovative technological solutions, and the impacts of IT/IS on organizations and society. Given the high-impact challenges facing businesses and organizations related to new IS technologies, the MIS track will provide a strong theoretical background for research, as well as implications for practice in both contemporary and emerging areas, including virtualization, computing cloud, green IT/power in the data center, the rise of personal electronic devices such as PDAs, tablets, and cell phones, IS predictive analytics, new governance/controls, the global cyberwar issue, and the new mobile world.

In addition to coursework, students in each track must submit research papers, take field examinations, and, in finance, complete an internship. There will also be an oral examination in defense of the dissertation. After completing the track requirements, a student will become a doctoral candidate; admission to candidacy signifies that a student is prepared to focus on researching and writing the dissertation. The dissertation-in-progress will be defended in an oral examination prior to the submission of the finished dissertation.

Admission

Admission to the proposed doctoral program will be selective. A faculty committee will consider each application evaluating the applicants' areas of interest with respect to curriculum and faculty research specialties, as well their prior academic preparation and promise as scholars. In addition to submitting the University's on-line Graduate Admissions Application Form and fee, an application to the Ph.D. program should include:

- A current resume or CV.
- Two essays, one indicating areas of research interest and one with a personal statement about interest in this program and commitment to research.
- Two letters of recommendation from individuals who can assess academic preparation for advanced graduate studies.
- Official transcripts of all prior academic work, including evidence of a bachelor's degree from an accredited institution. There is no minimum GPA for admission,

but to be competitive applicants should usually have earned the equivalent of a 3.0 GPA as undergraduates and a 3.5 GPA as graduate students.

- A short (3-5 pages) sample of academic writing.
- GMAT or GRE scores. UMB will not consider applicants with less than 450 on the GMAT (or its equivalent on the GRE).
- TOEFL or IELTS score for most international students. Target test scores for the Ph.D. in Business Administration are as follows: TOEFL: Paper-based: 600, Computer-based: 250; Internet-based: 100. IELTS: 7.0.

Enrollment

The Ph.D. will be a full-time program, structured so that students can complete the degree minimally in three but typically in four years, including two years of course work.

	# of Students Year 1	# of Students Year 2	# of Students Year 3	# of Students Year 4	# of Students Year 5	# of Students Year 6	# of Students Year 7	# of Students Year 8
New Full Time*								
Track 1 OSC	8‡	4	4	4	4	4	4	4
Track 2 FIN	-	-	8	-	8	-	8	-
Track 3 MIS	-	-	-	-	8	-	8	-
Continuing Full Time†								
Track 1 OSC	-	8	12	16	12	12	12	12
Track 2 FIN	-	-	-	8	8	16	8	16
Track 3 MIS	-	-	-	-	-	8	8	16
New Part Time	NA	NA	NA	NA	NA	NA	NA	NA
Continuing Part Time	NA	NA	NA	NA	NA	NA	NA	NA
Totals	8	12	24	28	40	40	48 = fully implemented	48

*These are the average targeted number of new students. Actual intake will vary depending on the depth of the applicant pool and the number of empty seats due to attrition or to previous smaller-than-expected entering classes.

‡ OSC plans to take a larger initial class in order to start with a critical mass of students.

†Assumes students complete degree requirements in four years.

NB: FIN and MIS will admit students biannually in order to spread out the offering of required courses—many of which must be taken sequentially and which would place an unsustainable burden on faculty resources if offered every year. OSC will admit students annually. This is feasible because most required courses do not have to be taken in order and can be offered every other year, with first and second year students combined in the same classes, thereby putting less strain on the faculty.

RESOURCES AND BUDGET

Faculty

The College of Management (CM) currently has 54 active full-time faculty members who hold doctoral degrees. Nearly half are tenured. Twenty-six assistant professors in the college are scheduled to come up for tenure review and promotion between 2012 and 2016, when the Ph.D. is fully implemented. Plans are to increase our faculty head count by nine over the next five years, bringing the total to 63 faculty members.

Administration

The Graduate Office of CM will administer the proposed Ph.D. program. Existing outreach, admission and retention strategies, as well as support services, will be expanded to support the program. Two newly created roles will be crucial to the success of the program: the Program Director and the Administrative Director.

There will be three newly created committees. Each committee will have members from all three tracks. Subcommittees will be deployed to do track-specific work (e.g., write qualifying exam questions). Cross-track collaboration, sharing of best practices, and quality assurance will be emphasized via the committees as follow:

- **Admissions committee:** Engage in active awareness and outreach campaigns in the early years of the program. Admit highly promising students.
- **Qualifying exam/paper committee:** Write, grade, and monitor results on qualifying exams and/or qualifying papers. Designate expert outside graders and readers as needed.
- **Academic affairs committee:** Monitor the progress of students, make decisions in key areas (e.g., about the appropriateness of electives), and adjudicate any concerns that arise.

Finally, each doctoral track will have a Track Coordinator. The track coordinators, in consultation with Department Chairs, will work with the Dean's office and the graduate office on course scheduling to achieve the required coordination among faculty members. They will work closely with department hiring committees to bring in faculty with needed areas of expertise.

Library and Information Technology

The university has more than adequate library facilities to support the Ph.D. in business administration. The collection includes 600,000 volumes, 660 print journal subscriptions and serials, and over 25,000 electronic journal titles and 81 databases. In addition, UMB is a member of the Boston Library Consortium, the Massachusetts Conference of Chief Librarians in Public Higher Education Institutions, and the Fenway Library Consortium, which gives our students access to many additional electronic and printed resources.

The library 1) hosts and maintains its own online integrated catalog, 2) hosts the Massachusetts Board of Library Commissioners Virtual Catalog, 3) significantly increased the number of information resources available at the desk top, 4) offers computers and laptops throughout the library, and 5) provides remote access to most services and electronic collections to bona fide constituents.

In the area of computers and telecommunications, UMB maintains communications infrastructure, campus data center, telecommunications, internal and external data

networking, infrastructure applications such as email, and the primary web site. All graduate students are provided with network and email service. They have general access to teaching computer labs and facilities, specialized workstations, and access to an increasing number of computer kiosks. All labs offer access to the campus network, the Internet, and to office applications including multimedia and productivity software as well as Web publishing software. A computer lab dedicated to academic placement and tutoring is in the new Campus Center. In addition, the Campus Center also has both wireless networking and hot jacks for students to connect appropriate communication devices.

PROGRAM EFFECTIVENESS

Goal	Measurable Objectives	Strategy for Achievement	Timetable
1. Develop a strong curriculum	Create 10+ syllabi for new required courses.	Designate lead faculty for each course. Faculty members give feedback on one another's syllabi and ensure distinctiveness of UMB approach. Provide course load releases to support faculty time.	Fall 2011 – underway and ongoing
	Create cross-campus connections among elective courses.	Identify other UMB courses to serve as electives (particularly ones where CM faculty have been guest lecturers). Market CM courses to other UMB doctoral students, particularly who need a business angle to complete their studies (e.g., Global Studies).	Fall 2011 (first wave completed) to Spring 2014
2. Recruit and retain qualified research faculty.	Hire new faculty member to start in Fall 2011 to prepare for Fall 2012 program launch.	Conducted national search, yielding 20+ competitive finalists. Interviewed 5 highly competitive candidates. Hired Mary C. Still, who has a strong publication record in top journals.	Spring 2011 -- completed
	Hire additional new line in Fall 2012, open rank.	Advertise position via Academy of Management and relevant listservs. Tap our networks to seek a senior hire with doctoral program experience.	Fall 2011 - Spring 2012
	Continue to hire – seven additional lines.	Identify gaps in expertise, recruit in these areas.	Fall 2012 and onward

	Retain productive research faculty.	Create “anomaly pool” to support salary increases for current faculty who are under-paid relative to incoming faculty (who benefit from rapidly rising salaries in the competitive market for business faculty).	Fall 2012
	Effectively utilize research faculty time by creating balanced workloads.	Devise procedures to adjust faculty teaching loads to reflect time spent on doctoral course development, admissions, advising, qualifying exam grading, dissertation committees, etc. New “Academically Qualified” status for doctoral faculty.	Fall 2011 (underway) and ongoing
3. Develop internal infrastructure to support program.	Design application form and essay questions for doctoral applicants to answer.	Adapt existing master’s program portals and work with UMB Graduate Studies to add doctoral application elements.	Fall 2011 – Spring 2012
	Develop appropriate staffing structure, to manage applications, student financial aid, program budget, student progress reviews, etc.	Hire a staff member to serve as Administrative Director of the Ph.D. Program, whose performance evaluation will emphasize that operations are completed on time and generate high satisfaction from stakeholders (faculty, students).	
	Develop appropriate faculty roles to provide guidance and oversight of program content and student progress.	Appoint one overall faculty Ph.D. Program Director, as well as three faculty Track Coordinators, one for each track, to ensure curriculum quality, coordinate evaluation of student qualifying exams or qualifying papers, timely completion, etc. Provide course load reductions to facilitate this work.	
4. Recruit high quality students	Market program electronically.	Create strong presence on the UMB and CM websites and social media vehicles, announcing the program (20+ inquiries in first two weeks of posting, with proviso “awaiting approval”).	Fall 2011 and onward

	Market program through current student networks.	Approach qualified master's program students, particularly those pursuing the Master's Thesis Option, to find interested and appropriate applicants.	Fall 2011 and onward
	Market program through faculty professional networks and professional associations.	Announce program on websites. Market program at Academy of Management annual meetings (August) and Financial Management Association annual meetings (October).	Summer/Fall 2011 and onward
	Pursue diversity among applicants.	Attend Ph.D. Project annual meeting in Chicago in November 2011 and annually, to recruit from their pool of minority doctoral applicants.	Fall 2011 and ongoing.
	Admit strong first cohort of 6 to 8 students.	Faculty committee screens all applications, conducts interviews with finalists to assess appropriateness of their skills and interests for doctoral level study.	Spring 2012 and onward
5. Keep students on track for degree completion.	Create cohort identity and attachment to the program.	Deliver comprehensive orientation program for new students, using existing UMB examples of such programs.	Fall 2012 and onward
	Create productive summer research experiences.	Create clear standards and expectations for summer research work and papers.	Spring 2013 and onward
	Provide regular student reviews and feedback. Aim for high pass rates on qualifying exams and qualifying papers, in first and second years.	Faculty report on caliber of work in first year courses. Students prepare Individual Study Plans proposing and documenting annual progress.	Fall 2012 and onward
	Facilitate finding sites and data for dissertation research.	Tap existing networks of area organizations. Purchase specific datasets.	Spring 2013 and onward
6. Generate a research impact as faculty and doctoral students produce together.	Create a distinctive College of Management identity in the research arena.	Students select meaningful, appropriate, well-scoped problems to study, giving UMB a distinctive stamp.	Spring 2012 and onward
	Ensure a CM presence at major research conferences.	Mentor students on submitting papers to conferences. Provide travel funds to faculty and students for presenting research.	Spring 2012

	Apply for research grants.	Utilize UMB seminars and structures for identifying grant opportunities, particularly ones that emphasize doctoral traineeships.	Spring 2012
	Papers and talks are co-authored by faculty and doctoral students; research findings become widely cited.	New faculty research seminar provides feedback on shaping work-in-progress into journal submissions.	Fall 2011 and ongoing
7. Create mechanisms to adapt and improve the program.	Faculty make revisions as needed, receive high course evaluations.	Track Coordinators meet with faculty at end of each semester.	Fall 2012 and onward
	Students report high satisfaction with and strong sense of connection to program.	Track Coordinators meet with students at end of each semester, individually and as cohort, for two-way feedback. Orient faculty to best practices in mentoring doctoral students.	Fall 2012 and onward
	Doctoral program is integrated with, and supports, master's and undergraduate offerings by the CM.	Desired faculty-student ratios are maintained across undergraduate, master's and doctoral curricula. Mix of full-time and adjunct faculty meet AACSB criteria. Top master's and undergraduate students join research projects with faculty and doctoral students.	Spring 2013 and onward
8. Place doctoral graduates into excellent and high impact positions.	Recognition of excellence of doctoral students' training.	Work with students to generate high quality job offers for first wave of graduates. Measure student satisfaction with placement efforts.	2016 and beyond
	Doctoral program alumni contribute to research, teaching, and practice in their fields.	Active mentorship from doctoral dissertation committees, during program and beyond.	2017 and beyond

EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

The proposal was reviewed by Dr. Leyland M. Lucas, Morgan State University; and Dr. Paul Mangiameli, University of Rhode Island. The reviewers concluded that the proposed program will contribute to the University's urban mission and also help address the impending challenges in academia by helping to address the increase in the rate of business faculty retirements and the lack of diversity of business faculty. The

reviewers also made a series of recommendations to strengthen the curriculum, to ensure faculty quality, and to rationalize the roll-out plans for the program.

In response to the curricular recommendations, UMB streamlined each of the three tracks such that students will be required to complete parallel numbers of credits in the field as well as have the option for electives. The University also clarified that Ph.D. students enrolled in the upper-level MBA classes would be assigned supplemental readings and papers with a research focus and have additional meetings with their instructors. In regard to faculty, UMB confirmed that only academically qualified faculty would be involved in the primary teaching activities and that CM will raise the baseline of performance for the core Ph.D. faculty. UMB intends to hire several scholars in the next few years and stated that when the program becomes fully operational, the ratio of senior faculty will improve substantially. In regard to admissions, the OSC track will admit students annually while the FIN and MIS tracks will admit students every other year.

STAFF ANALYSIS AND RECOMMENDATION

Board staff thoroughly reviewed all documentation submitted by the University of Massachusetts Boston and external reviewers. Staff recommendation is for approval of the Doctor of Philosophy in Business Administration.

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

Major Required (Core) Courses (Total # of courses required = 3)		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
CM 700	Business in context: Markets, technologies, societies*	3
CM 775	Seminar on effective Teaching and Presenting*	3
CM 891	Dissertation Seminar	3
	SubTotal # Core Credits Required	9
Specialization: Organizations and Social Change (OSC) (Total courses required = 8) STARTS 2012		
Psych 670 or PPOL-G 604	Stats I (may be waived)	3
Psych 770 or PPOL-G 605	Stats II	3
CM 770	Introduction to Research Methods in the Social Sciences*	3
CM 750	Foundations of Organizational Theory*	3
CM 751	Organizations and Social Change*	3
CM 760	Globalization and Political Economic Dimensions of Organizational Theory*	3
	<i>Methods (Choose two)</i>	
CM 755	Qualitative Methods*	3
CM 756	Critical Discourse Analysis	3
CM 757	Field Research	3
	SubTotal # Track Mandatory Credits Required	24
Specialization: Finance (FIN) (Total courses required = 9) STARTS 2014		
CM 710/711	Accounting for Finance I & 2*	6
CM 720/721	Quantitative Financial Analysis I & 2*	6
CM 722	Cross Section Analysis of Financial Data*	3
CM 723	Time Series Analysis of Financial Data*	3
CM 730	Seminar in Corporate Finance*	3
CM 731	Seminar on Financial Economics*	3
CM 732	Seminar in Investment and Asset Valuation*	3
	SubTotal # Track Mandatory Credits Required	27
Specialization: Management Information Systems (MIS) (Total courses required = 6) STARTS 2016		
Note: These six courses are awaiting approval by CM governance.		
CM 740/741	Theories and methods in information systems research 1&2	6
CM 742	Advanced Topics in Information Research	3
CM 743	Decision theory	3
CM 744	Globalization and outsourcing	3

CM 798/799	Seminar in Information Systems Research (2 semesters)	6
	SubTotal # Track Mandatory Credits Required	18
Other/Elective Course Choices (Total electives required varies by track) All 600-level courses below are already approved and offered by CM. When taken by Ph.D. students there will be extra sessions and/or additional reading/writing assignments for them.		
HE 641	Leadership for effecting change in higher education	3
PPOLGL609/GER609L	Multi-method research design using qualitative methods	3
PPOL-G 745	Advanced Quantitative Methods	3
CM 888	Special Topics: Teaching business ethics and social issues*	3
CM 897	Special Topics: Social Entrepreneurship, Innovation, and Change*	3
CM 897	Special Topics: Feminist practices in work and community*	3
CM 766	Seminar on publication and peer review process	1
CM 733	Topics in Corporate Finance*	3
CM 734	Topics in Investment and Asset Pricing*	3
CM 735	Topics in International Finance*	3
CM 777	Seminar on job search and careers	1
CM 898	Internship	3
AF 603	Massachusetts in the Global Economy	3
MSIS 611	Knowledge Management and Business Intelligence: Competing in the Knowledge Economy	3
AF 613	Federal Tax Planning*	3
AF 614	Financial and Managerial Auditing	3
AF 615	International Accounting	3
MSIS 617	Management of the Supply Chain	3
AF 622	Global Portfolio Investment Management	3
AF 627	Healthcare System Financial Management	3
AF 630	International Economy and Business	3
MGT 650	Organizational Processes	3
MGT 651	Human Resource Planning	3
MGT 652	Organizational Diagnosis and Change	3
MGT 665	International and Comparative Management	3
MGT 667	Entrepreneurship and New Venture Creation	3
MGT 671	Introduction to Environmental Management	3
MKT 674	International Marketing	3
MGT 674	Managing in the Global Economy	3

MKT 675	Business-to-business e-Commerce	3
MGT 677	Multinational Corporations and Globalization	3
MGT 678	Environmental Management Implementation Issues	3
MKT 679	Export Development and Foreign Sourcing	3
MGT 683	Leadership in the 21st Century	3
MGT 685	Global Industry and Competitive Analysis	3
MGT 688	Business and Climate Change	3
MGT 697	Social Entrepreneurship	3
	SubTotal # Elective Credits Required (OSC)	9
	SubTotal # Elective Credits Required (FIN)	6
	SubTotal # Elective Credits Required (MIS)	12

Curriculum Summary	
Total number of courses required for the degree	14 (not including thesis work)
Total credit hours required for degree	42 (at least 54 with thesis)
Prerequisite, Concentration or Other Requirements:	
<p>Students are required to enroll in CM 899 Dissertation (4 x 3 CH for a minimum of 12 credits; international students and some domestic students may take more dissertation credits, including summer registration to maintain student visa status) until the thesis is completed. Students in FIN take the CM 898 internship class in lieu of one of these dissertation courses. There is also a non-credit summer paper project due by the start of the second year in the OSC track.</p>	

ATTACHMENT B: BUDGET

One Time/ Start Up Costs		Annual Expenses			
		Year 1	Year 2	Year 3	Year 4
	Cost Categories				
	Full Time Faculty (Salary & Fringe)	182,000	271,960	462,118	560,482
	Part Time/Adjunct Faculty (Salary & Fringe)	0	0	0	0
	Staff	0	72,000	72,000	110,000
	General Administrative Costs	3,000	3,000	0	0
	Instructional Materials, Library Acquisitions	100,000	100,000	100,000	100,000
	Facilities/Space/Equipment	0	0	0	0
	Field & Clinical Resources	0	0	0	0
	Marketing	2,000	2,000	1,000	1,000
	Other (Specify)	200,000	300,000	600,000	700,000
	TOTALS	487,000	748,960	1,235,118	1,471,482

One Time/Start-Up Support		Annual Income			
		Year 1	Year 2	Year 3	Year 4
	Revenue Sources				
	Grants	0	0	0	0
	Tuition	892,395	892,395	892,395	892,395
	Fees	1,773,030	1,773,030	1,773,030	1,773,030
	Departmental	0	0	0	0
	Reallocated Funds	0	0	0	0
	Other (specify)	140,000	140,000	140,000	140,000
	TOTALS	\$2,805,425	\$2,805,425	\$2,805,425	\$2,805,425

I. COSTS

Full time Program Faculty

The attached four year budget shows the costs for adding seven new faculty members. Since these individuals will have responsibilities for undergraduate and master's level teaching, research and service, in addition to assignments in the doctoral program, in estimating their cost to the Ph.D. program we use the liberal estimate of half the faculty salary and fringe. We anticipate the salaries of these faculty members to be in the \$130k- 140K range (junior rank) and \$150k senior rank). Thus, our budget presents ½ of the actual costs for each of the new lines allocated to the program and also projects a

3% annual salary increase. Beyond this initial four year budget outlook, we project that one additional faculty will be needed by the time the third track of the Ph.D. begins in 2016, bringing the net increase in faculty members associated with the degree to seven.

Start up costs for newly hired faculty (shown in “other”) are estimated to be \$5K per year for each new hire for a period of 3 years.

Staff

In the first year of the program, administration will be staffed by current resources in our Graduate Program Office. By year 2 we expect that the program will require a full time administrator at a salary (including benefits) of \$72k, and by year 4 of the program, a classified staff person will be added at a cost of \$38K.

General Administrative Costs

In addition, direct administrative costs include mailing of informational materials, redesign of the website to include information about the Ph.D. program at a cost of 3K per year for 2 years.

Instructional Materials, Library

Our faculty have examined library resources, met with library personnel, and determined that we will need approximately \$100K per year for software and databases at a cost of \$100K per year.

Marketing

Marketing and development of printed and web resources are estimated at a cost of \$2000/year for years 1 and 2, and \$1000/year thereafter.

Doctoral Student Stipends (shown in “other”)

Stipends are \$25K per year. In years 3 and 4 we are anticipating that 24 Ph.D. students will be on half-stipends because of teaching assignments. Twelve and 16 students, respectively, will be receiving full stipends.

II. REVENUES

Tuition and Fees

Although the tuition and fees for doctoral students in the program will be covered through their stipends, it is important to recognize that all faculty teach at both the graduate and undergraduate levels. Thus, through their instructional activities, program faculty generate income. Based on the contributions of 10 faculty members each teaching a 35 person, 3 credit course during each semester, the income generated by program faculty is equivalent to the tuition and fees for 350 students/semester, or 700 students per year. Since a program faculty member is likely to be teaching at least one masters level course each semester, we estimate they will generate revenues of \$2,665,425. This is based on a graduate tuition rate of in-state student which is now \$108/credit and fees \$363 /credit; non-resident tuition is \$406.50/credit and fees are \$532/credit. Our estimate is conditioned on the premise that 65% (455) of graduate students in the College of Management are in-state residents and 35% (245) will be out-of-state residents

In State Students

Tuition \$ 294,840

Fees \$ 990,990

Non Resident

Tuition \$ 597,555

Fees \$ 782,040

Other Revenue

Graduate students enrolled in the College of Management pay a differential fee of \$200 per semester which generates an additional revenue stream of \$140K. These funds will be available to offset program costs.