BOARD OF HIGHER EDUCATION

REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Academic Affairs **NO**: AAC-16-05

COMMITTEE DATE: October 20, 2015

BOARD DATE: October 27, 2015

APPLICATION OF UNIVERSITY OF MASSACHUSETTS LOWELL TO AWARD THE MASTER OF SCIENCE IN BUSINESS ANALYTICS

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

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: Winifred M. Hagan, Ed.D.
Interim Deputy Commissioner for Academic and Student Success

BOARD OF HIGHER EDUCATION

July 2015

University of Massachusetts Lowell
Master of Science in Business Analytics

INTENT AND MISSION

The proposed Master of Science in Business Analytics (MSBA) is consistent with the University of Massachusetts Lowell (UML)'s mission of providing an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world.[1] Additionally, the proposed MSBA supports the mission of the Manning School of Business (MSB) in delivering exceptional teaching and learning experiences in its bachelor's, master's and doctoral programs that prepare its graduates for the competitive global business environment, while engaging in research.[2] The proposed MSBA program will provide students with a curriculum rich in extensive business analytics' knowledge of data management and business intelligence, complimented by experiential learning activities with hands-on problem solving in real-world situations. The purpose of the proposed MSBA is to prepare students from various business-related disciplines to pursue professional careers in business analytics.

The proposed program has obtained all necessary governance approvals on campus and was approved by the University of Massachusetts Board of Trustees on April 8, 2015. The required letter of intent was circulated on January 6, 2015. One comment from Framingham State University was received on January 13, 2015, which provided support for the proposed program citing the fact that most decision making in business is based on collecting and dissecting data. They further offered that targeting companies to recruit students for the program would be mutually beneficial because knowledge of business analytics is needed.

NEED AND DEMAND

National and State Labor Market Outlook

The Bureau of Labor Statistics (BLS)[3] forecasts that there will be significant opportunities for big data analytics and business analytics professionals well into the future. The BLS states that the fast-growing new jobs related to big data are in business, e-commerce, finance, government, healthcare, science, social networking, telecommunications, and other areas like utility and energy. The Massachusetts Executive Office of Labor and Workforce Development projects business analyst occupations will experience significant growth rates from 2010 to 2020. Statewide growth rates will be 31.13% for management analysts, 46.15% for marketing analysts, 35.66% for financial analysts, and 28.54% for computer systems analysts and 29.91% for information security analysts.

[1] http://www.massachusetts.edu/system/about.html.
[2] http://www.uml.edu/msb/
[3] http://www.bls.gov/careeroutlook/2013/fall/art01.pdf

Nationally, there were 419,702 business analytics, 379,604 business analytics manager, 29,705 big data analytics, 24,904 big data analytics manager, 291,514 data analytics and 255,630 data analytics manager positions available in November 2014.[4] In Massachusetts, there were 18,709 business analytics, 17,153 business analytics manager, 2,052 big data analytics, 1,726 big data analytics manager, 14,321 data analytics and 12,303 data analytics manager positions available in November 2014.[5] Average salaries for these positions ranged from $90,000 to $102,000 in Massachusetts and $77,000 to $88,000 nationally[6].

Student Demand

The initial target audience for the proposed MSBA will be UML management information systems (MIS) and supply chain and operations management (SCOM) graduates which number approximately 30-40 bachelor's degrees per year. It is reported that students have been inquiring about an advanced degree in business analytics for years. The second target population would be those from other institutions in the United States, particularly those in eastern and central Massachusetts and southern New Hampshire. UML suggests that the increasing market demand for data analytics professionals, coupled with the lack of competing programs offered by universities in the region, creates a great opportunity for attracting graduating students from other institutions. The third target population would be international students. UML anticipates that the MSBA will bring significant revenue to the MSB and the University because of existing international partnerships and current international student enrollment in its MBA program.

OVERVIEW OF PROPOSED PROGRAM

The proposed MSBA program is designed to prepare students from various business-related disciplines to pursue professional careers in business analytics. The proposed MSBA is expected to provide students with the knowledge and skills in the areas of information systems, data management, data analysis, managerial decision-making and business functional areas such as finance, marketing, and operations management.

Duplication

UML reported that a review of private and public universities in Massachusetts indicated that only one institution is offering a program similar to the proposed MSBA. Bentley University offers a MSBA. Boston College offers a concentration in Business Analytics within the Master of Business Administration degree.

ACADEMIC AND RELATED MATTERS

Admission

General admission requirements to the proposed MSBA program include official transcripts for an undergraduate degree. A minimum overall GPA of 3.0 is required. A GMAT minimum of 550 or GRE with equivalent minimum score can be waived if students have an earned a

[4] Retrieved November 3, 2014 from www.SimplyHired.com
[5] Retrieved November 3, 2014 from www.SimplyHired.com
[6] Retrieved November 3, 2014 from www.PayScale.com

baccalaureate degree from UML with a cumulative undergraduate GPA of at least 3.2; or an earned baccalaureate degree from an AACSB-accredited or equivalent institution with a cumulative undergraduate GPA of at least 3.5 and upon receipt of a recommendation by a faculty member. International students are required to have a minimum TOEFL score of 600/PBT, 250/CBT, 100/IBT. In addition, UML requires three letters of recommendation.

All students seeking admission to the proposed MSBA will be required to have fulfilled the prerequisite courses, Statistics for Business Economics, Financial Management, Business Information Systems, Marketing Principles and Managerial Principles. Students who have earned a grade C or below or who have not taken these courses within five years prior to admission will be required to pass a competency exam in statistics before registering for any MSBA courses.

PROGRAM ENROLLMENT PROJECTION

	# of Students Year 1	**# of Students Year 2**	**# of Students Year 3^{+}**	**# of Students Year 4^{+}**
New Full-Time	20-30	20-30	20-30	20-30
Continuing Full-Time				
New Part-Time	10	10	10	10
Continuing Part-Time		10	15	20
Totals	30-40	40-50	45-55	50-60

Curriculum (Attachment A)

The proposed MSBA program consists of ten courses, including seven graduate analytics core courses and three courses from the respective business track. The curriculum offers four business tracks: Big Data Analytics, Managerial Decision Making, Marketing Analytics and Finance Analytics. In addition, students who have earned a grade C or below or who have not taken prerequisite courses in Statistics for Business Economics, Financial Management, Business Information Systems, Marketing Principles and Managerial Principles within five years prior to admission will be required to pass competency exams in those courses before registering for any MSBA courses.

The proposed MSBA program can be completed on a full-time or part-time basis. For a full-time student, the program can typically be completed in one calendar year, by taking four courses in the fall, four courses in the spring and two courses in the summer semester. Part-time students will proceed at a slower and more varied pace.

Internships or Field Studies

UML is planning to offer independent study courses and internships similar to those currently offered in other MSB graduate programs.

RESOURCES AND BUDGET

Fiscal (Attachment B)

UML anticipates that the proposed MSBA will be a net revenue-generating academic program. Revenue projections are based on an enrollment of 30-40 students in year one, and 40-50 students per year thereafter. UML reports that MSB enrollments increased approximately 25% between fall 2013 and fall 2014 and are projected to increase by another 5-10% for fall 2015.

Expenditure projections include salary allocations for a part-time program coordinator in year one and an additional part-time assistant in year three. Salary allocations also include two additional adjunct faculty in year one and four additional adjunct faculty in years two through five. The additional adjunct faculty will be hired to cover undergraduate sophomore year courses currently taught by full-time faculty to ensure all MSBA courses will be taught by full-time faculty. UML anticipates that as the MSBA program grows, additional Operations and Information Systems department (OIS) faculty may need to be hired. It is expected that faculty and related expenses for the MSBA program will be offset by revenues.

Faculty and Administration (Attachment C)

UML plans that for the Fall of 2015, MSB will have a total of 69 full time faculty members; 57 faculty tenured or tenure-track and 12 full-time lecturers and visitors. MSB also plans for 51 part time or adjunct faculty members. The MSBA will rely solely on full-time faculty from OIS and marketing for the launch of the proposed program. The expectation is that 15 full-time faculty will teach in the program across the time period required to offer all courses.

The OIS currently has 11 full-time tenured or tenure-track faculty members, two visiting professors, and several adjunct instructors. It is planned that the MSBA will have faculty from the OIS teaching core courses and courses in the big data analytics and managerial decision-making tracks. Faculty members teaching core courses are tenured or tenure-track and have terminal degrees in their discipline. It is expected that courses in the marketing analytics and finance analytics tracks will be taught by MSB faculty in the corresponding departments. UML anticipates that the initial demands of the MSBA program would be met with the current capacity of the MSB faculty. As the MSBA grows, tenure-track, non-tenure track, or adjunct faculty would expect to be added to meet demand incrementally.

The MSB currently has a dean, an associate dean, one part-time graduate program director (a faculty member), a full-time IT professional, four full-time staff assistants, and several part-time and student assistants. It is planned that the MSBA program will require an additional part-time coordinator who will be a faculty member. Depending on the needs and growth of the program, an additional part-time coordinator and/or staff assistant might be needed in the future. The OIS faculty will serve on the admissions committee as is the case in the other MSB graduate programs. All curriculum development, review, modifications, and assessments will follow existing committee structures and processes, to include the OIS faculty and the graduate programs committee.

Facilities, Library and Information Technologies

UML online articles and databases and resources are already available and in place for use by both undergraduate and graduate students. Relevant databases that are expected to be of particular interest to MSBA students include INFORMS PubsOnLine Suite, ACM Digital Library, IEEE Xplore, ABI Complete, and IGI Information Science Reference Library.

The MSB teaching lab and general-purpose computer lab will be available for MSBA students in addition to access to general-purpose computer labs. The MSB teaching lab offers 36 desktop computers, 1 laser printer, 2 overhead projectors, 1 teaching station, and a whiteboard. In the general-purpose lab, there are 41 desktop computers, 2 laser printers, 1 overhead projector, and 5 laptop stations. Currently, the software in the labs includes Office 2010 Professional, MS Visio 2010, MS Project 2007, Macromedia CS5, Java, SQL Server/MySQL databases, Excel QM 3, POM-QM 3, Tera Term Pro, WinSCP 3, Macromedia Suite 8, and Adobe Acrobat 8. In addition, there is a license agreement between UML and IBM Corporation to use IBM SPSS Modeler and IBM SPSS Text Analytics for teaching related courses. Finally, MSB classrooms are technology-enhanced, including a desktop computer, a SMART monitor with touch-screen, a laptop A/V hookup, lecture-capture video equipment, a VCR and/or DVD player, stereo speakers, a document camera, and an Extron control panel. All classrooms, labs, and common areas in the University are covered by wireless internet access.

Affiliations and Partnerships

UML reports that the MSB has an active advisory board comprised of alumni and members of the community. The members of this board, particularly those with a background in business analytics, will be working with the MSBA program faculty to help develop and monitor the program through regular meetings; they have also offered their services as guest speakers, mentors, and data resources and will provide students with connections to potential employers.

In addition, the proposed program plans to recruit advisory board members from locally recognized leading business analytic firms in the areas. At the time of the proposal submission, Stephen Irish, COO, Enterprise Bank, Lowell; Steve Richards, Co-founder & COO, Podium Data, Lowell; and Arthur E. McDonald, President and Chief Analytics Officer, Business Intelligence have committed to being part of the MSBA advisory board.

PROGRAM EFFECTIVENESS

Goal	Measurable Objective	Strategy for Achievement	Timetable
Enroll good students in the program	Enroll 20-30 students each year; average GMAT/GRE scores; GPAs; work experience	• Promote the program in regional, national and international higher-education media outlets • Track enrollment of minority and disadvantaged students • Provide graduate assistantships support for outstanding students	Year 1 and repeat annually
Track student enrollment and retention	Retain at least 80% of the students; track enrollment and retention rates	Monitor student progress on an ongoing basis and provide timely advising to students	Year 2 and repeat annually
Graduate students successfully from the program	Graduate students within 2 years; GPA ≥ 3.0 for graduating class	• Maintain statistics of student GPAs, enrollment dates and planned graduation dates • Track graduation rates of minority and disadvantaged students	Year 2 and repeat annually
Help students succeed in job placement and employment at graduation	Attain at least 90% job placement rate at graduation; number and amount of job offers; job position and titles	• Coordinate with career services • Invite employer visits • Monitor graduates' employment rates	Year 2 and repeat annually
Maintain student contact and monitor student progress after graduation	MSBA alumni surveys; MSB newsletter; MSB alumni activities	• Conduct exit interviews with graduates • Surveys with alumni • Invite alumni annually for fund-raising events	Year 3 and repeat annually
Increase the reputation and visibility of the Manning School of Business at UMass Lowell	• Develop relationships with top companies in recruiting MSBA students • Recruit a higher-quality number of faculty applicants interested in the MSBA and the overall mission of the School • Increase faculty participation at	• Active involvement by Career Services Office; personal contacts • Advertising (on websites of the Chronicle of Higher Education, BA/IS Association), professional meetings, personal contacts • Encourage faculty attendance; support related costs • Active involvement by the Office of Public Affairs; encourage op-ed pieces by	Year 3 and repeat annually

	professional conferences • Strive for more faculty/School representation in the local/national media • Increase fundraising within the Manning School of Business • Host more professional conferences at UMass Lowell	faculty • Work with the University Advancement Office on leads and prospects • Work with professional associations, UMass Lowell Inn & Conference Center.	

EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

Amit Basu, Ph.D., Carr Collins Endowed Chair in MIS, at Southern Methodist University, David Olson, Ph.D., James and H. K. Stuart Professor in MIS, at the University of Nebraska and Thaddeus Sim, Ph.D., Associate Professor of Business Analytics and Chair, Department of Business Analytics, Finance and Marketing, at Le Moyne College reviewed the MSBA proposal documents. Dr. Basu, Dr. Olson and Dr. Sim conducted a site visit on the UML campus on February 5 through 6, 2015 and met with with the MSBA planning committee members, OIS Department faculty, Manning School of Business dean & graduate program directors, and vice-provost for graduate programs. Based upon individual reading of the proposal and the observations from the site visit, the reviewers conferred and submitted a joint report.

The reviewers found evidence in the proposal for an existing demand for the MSBA program, sufficient faculty expertise in business analytics and an adequate curriculum which balances contemporary analytical skills with business problem-solving skills. The reviewers noted that coverage of unstructured data from sources such as social media, mobile systems, sensors and smart devices should be included in one or more courses. They also found that if the program is successful, additional faculty lines will be necessary for its' continued success. Reviewers also suggested that the budget be revised to include the cost of adjunct faculty and/or overload teaching that will be necessary to launch the program.

UML responded in agreement with all of the reviewers' recommendations. The MSBA planning committee has implemented changes to course descriptions and syllabi for MIST.614, MIST.615 and MIST.616 to cover unstructured data. Additionally, other courses will include problem solving assignments with unstructured and text data where applicable. In regards to the reviewers' recommendations to increase faculty lines, UML noted that additional faculty lines are already built into the University's five year strategic plan for the Manning School of Business, consistent with overall enrollment growth across all disciplines. In addition, UML has adjusted the adjunct faculty budget due to the reassignment of full-time faculty to cover MSBA courses.

STAFF ANALYSIS AND RECOMMENDATION

Staff thoroughly reviewed all documentation submitted by the **University of Massachusetts Lowell** and external reviewers. Staff recommendation is for approval of the proposed **Master of Science in Business Analytics.**

ATTACHMENT A: CURRICULUM

Required (Core) Courses (Total number of courses required = 7)		
Course Number	**Course Title**	**Credit Hours**
MIST.603	Business Database Management	3
MIST.606	Data Mining for Business Intelligence	3
MIST.615	Data Quality for Business Analytics	3
POMS.621	Advanced Statistics for Business	3
POMS.622	Decision Analytics	3
POMS.624	Analytical Decision Making Tools	3
MIST.649	Business Analytics Capstone Project	3
	SubTotal # Core Credits Required	21
Big Data Analytics Track (Total number of courses required = 3, from courses below)		
MIST.612	Statistics for Predictive Analytics	3
MIST.614	Social and Economic Networks	3
MIST.616	Advanced Topics in Business Intelligence	3
MIST.608	Enterprise System Management	3
	SubTotal # Track Credits Required	9 of 12
Managerial Decision-Making Track (Total number of courses required = 3, from courses below)		
MIST.635	Project Management	3
POMS.602	Global Supply Chain Management	3
POMS.603	Service Management	3
POMS.604	Managerial Quality Control	3
	SubTotal # Track Credits Required	9 of 12
Marketing Analytics Track (Total number of courses required = 3, from courses below)		
MIST.607	Electronic Commerce	3
MKTG.601	Customers And Markets	3
MKTG.630	Market Research	3
MKTG.641	Marketing Analytics	3
	SubTotal # Track Credits Required	9 of 12
Finance Analytics Track (Total number of courses required = 3, from courses below)		
MIST.612	Statistics for Predictive Analytics	3
FINA.601	Corporate Finance	3
FINA.611	Financial Statements Analysis	3
FINA.621	Portfolio Investment and Security Valuation	3
	SubTotal # Track Credits Required	9 of 12

Curriculum Summary	
Total number of courses required for the degree	10
Total credit hours required for degree	30
Prerequisite or Other Requirements: Students must exhibit sufficient recent knowledge of statistics. Students with a grade C or below or	

who have not taken a statistics course in the last 5 years prior to admission, will be required to pass a competency exam in statistics (equivalent of UMass Lowell 49.211)

ATTACHMENT B: BUDGET

REVENUE ESTIMATES											Row Notes
Full-Time Tuition Rate: In-State	1737		1789		1737		1789		1842		
Full-Time Tuition Rate: Out-of-State	6816		7021		6816		7021		7231		
Mandatory Fees per Student (In-state)	11020		11350		10585		10902		11229		
Mandatory Fees per Student (out-state)	16739		17241		15939		16417		16910		
FTE # of New Students: In-State	5		10		10		10		10		
FTE # of New Students: Out-of-State	5		10		10		10		10		
# of In-State FTE Students transferring in from the institution's existing programs											
# of Out-of-State FTE Students transferring in from the institution's existing programs											
Tuition and Fees	**Newly Generated Revenue**	**Revenue from existing programs**	**Newly Generated Revenue**	**Revenue from existing programs**	**Newly Generated Revenue**	**Revenue from existing programs**	**Newly Generated Revenue**	**Revenue from existing programs**	**Newly Generated Revenue**	**Revenue from existing programs**	
First Year Students											
Tuition											
In-State	$8,683	$0	$17,888	$0	$17,367	$0	$17,888	$0	$18,425	$0	
Out-of-State	$34,081	$0	$70,208	$0	$68,163	$0	$70,208	$0	$72,314	$0	
Mandatory Fees	$138,792	$0	$285,912	$0	$265,236	$0	$273,193	$0	$281,388	$0	
Second Year Students											
Tuition											

In-State			$8,944	$0	$17,367	$0	$17,888	$0	$18,425	$0	
Out-of-State			$35,104	$0	$68,163	$0	$70,208	$0	$72,314	$0	
Mandatory Fees			$142,956	$0	$265,236	$0	$273,193	$0	$281,388	$0	
Third Year Students											
Tuition											
In-State					$0	$0	$0	$0	$0	$0	
Out-of-State					$0	$0	$0	$0	$0	$0	
Mandatory Fees					$0	$0	$0	$0	$0	$0	
Fourth Year Students											
Tuition											
In-State							$0	$0	$0	$0	
Out-of-State							$0	$0	$0	$0	
Mandatory Fees							$0	$0	$0	$0	
Fifth Year Students											
Tuition											
In-State									$0	$0	
Out-of-State									$0	$0	
Mandatory Fees									$0	$0	
Gross Tuition and Fees	$181,557	$0	$561,012	$0	$701,531	$0	$722,577	$0	$744,254	$0	
Grants	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Contracts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Campus budget allocation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

Other Revenues	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	***state appropriations, etc.***
Total	**$181,557**	**$0**	**$561,012**	**$0**	**$701,531**	**$0**	**$722,577**	**$0**	**$744,254**	**$0**	

	Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**	
	2016		**2017**		**2018**		**2019**		**2020**	
	New Expenditures required for Program	**Expenditures from current resources**	**New Expenditures required for Program**	**Expenditures from current resources**	**New Expenditures required for Program**	**Expenditures from current resources**	**New Expenditures required for Program**	**Expenditures from current resources**	**New Expenditures required for Program**	**Expenditures from current resources**
Personnel Services										
Faculty	$120,000	$0	$123,600	$0	$127,308	$0	$131,127	$0	$135,061	$0
Administrators	$11,000	$0	$11,000	$0	$11,000	$0	$11,000	$0	$11,000	$0
Support Staff	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Others	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fringe Benefits ____%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Personnel	**$131,000**	**$0**	**$134,600**	**$0**	**$138,308**	**$0**	**$142,127**	**$0**	**$146,061**	**$0**
Operating Expenses										
Supplies	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Library Resources	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Marketing/Promotional Expenses	$40,000	$0	$20,000	$0	$20,000	$0	$20,000	$0	$20,000	$0
Laboratory Expenses	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
General Administrative Overhead	$10,000	$0	$10,000	$0	$10,000	$0	$10,000	$0	$10,000	$0
Other (specify)	$15,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Operating Expenses	**$65,000**	**$0**	**$30,000**	**$0**	**$30,000**	**$0**	**$30,000**	**$0**	**$30,000**	**$0**
-										
Net Student Assistance										
Assistantships	$16,634	$0	$34,266	$0	$35,294	$0	$36,353	$0	$37,443	$0
Fellowships	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stipends/Scholarships	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Student Assistance	**$16,634**	**$0**	**$34,266**	**$0**	**$35,294**	**$0**	**$36,353**	**$0**	**$37,443**	**$0**
Capital										
Facilities / Campus recharges	$20,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital	**$20,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Expenditures	**$232,634**	**$0**	**$198,866**	**$0**	**$203,602**	**$0**	**$208,480**	**$0**	**$213,504**	**$0**

BUDGET SUMMARY OF NEW PROGRAM ONLY										
	Year 1	Year 2	Year 3	Year 4	Year 5					
	2016	2017	2018	2019	2020					
Total of newly generated revenue	$181,557	$561,012	$701,531	$722,577	$744,254					
Total of additional resources required for program	$232,634	$198,866	$203,602	$208,480	$213,504					
Excess/ (Deficiency)	($51,077)	$362,145	$497,929	$514,097	$530,749					
Justification of Financial Projections: Tuition rates used are as published on the University of Massachusetts Lowell website at http://www.uml.edu/Tuition-fees/Tuition-Costs/Graduate-Students/default.aspx. Revenues and costs are projected to increase at 3% per year.										

ATTACHMENT C: FACULTY

Summary of Faculty Who Will Teach in Proposed Program							
Name of faculty member (Name, Degree and Field, Title)	**Tenured Y/N**	**Courses Taught (C) =core course. (OL)= course currently taught online.**	**Number of sections**	**Division or College of Employment**	**Full- or Part-time in Program**	**Full- or part-time in other department or program**	**Sites where individual will teach program courses**
Chen, Edward Ph.D. in MIS Professor	Y	• Management Information Systems (C, OL) • Systems Analysis & Design (C) • Project Management (OL)	(1) (1) (1)	Day School of Business	Full-time	No	• Main Campus
Chen, Yao Ph.D. in OM Professor	Y	• Operations Management (C) • Service Management (C) • Managerial Decision Making (C)	(1) (1) (1)	Day School of Business	Full-Time	No	• Main Campus
Khan, Riaz Ph.D. in OM Emeritus Professor	Y	• Operations Analysis Techniques (C) • Operations Management (C)	(1) (1)	Day School of Business	Part-Time	No	• Main Campus
Lewis, David Ph.D. in Industrial Engineering Professor	Y	• Operations Management (C) • Managerial Quality Control (OL)	(1) (1)	Day School of Business	Full-Time	No	• Main Campus
Levy, Joshua Ph.D. in Mathematics Visiting Instructor	N	• Operations Analysis Techniques (C) • Operations Management (C)	(1) (1)	Day School of Business	Full-Time	No	• Main Campus
Li, Xiaobai Ph.D. in Management Science Professor	Y	• Data Mining for Business Intelligence (C) • Data Analytics (C) • Database Management (C) • Application Systems Development (C)	(1) (1) (1) (1)	Day School of Business	Full-Time	No	• Main Campus
Motiwalla, Luvai Ph.D. in MIS Professor	Y	• Management Information Systems (C, OL) • E-Business (C, OL) • Enterprise Systems Management (OL)	(1) (1) (1)	Day School of Business	Full-time	No	• Main Campus
Oztekin, Asil Ph.D. in Operations Assistant Professor	N	• Operations Analysis Techniques (C) • Operations Management (C)	(1) (1)	Day School of Business	Full-Time	No	• Main Campus
Qin, Jialun Ph.D. in MIS Associate Professor	Y	• Application Systems Development (C) • Data Communications & Networks (C) • E-Business (C, OL)	(1) (1) (1)	Day School of Business	Full-time	No	• Main Campus
Sloan, Thomas Ph.D. in Management Science Associate Professor	Y	• Operations Analysis Techniques (C,OL) • Operations Management (C,OL) • Global Operations & Supply Chain Mgmt.	(1) (1) (1)	Day School of Business	Full-time	No	• Main Campus

Zhang, Juheng Ph.D. in MIS Assistant Professor	N	• Management Information Systems (C) • Data Communications & Networks (C)	(1) (1)	Day School of Business	Full-time	No	• Main Campus
Zhu, Hongwei Ph.D. in Technology, Management and Policy Associate Professor	N	• Management Information Systems (C) • Application Systems Development (C)	(1) (1)	Day School of Business	Full Time	No	• Main Campus