



MEMORANDUM

To: Donna E. Shalala, President

From: Tomas A. Salerno
Chair, Faculty Senate

Date: February 27, 2015

Subject: Faculty Senate Legislation #2014-19(B) – Name Change of a *Major in Management Science* to a *Major in Business Analytics* (including curricula changes), School of Business Administration

The Faculty Senate, at its February 25, 2015 meeting, voted unanimously to approve the School of Business Administration proposal to change of name of the *major* in Management Science to a *major* in Business Analytics with associated curricula changes. This proposal sets forth to modernize the name of the major and as noted in the proposal, “is aimed to train our students to develop skills necessary to gather, manipulate, understand, and make use of date, in particular big data, in a business context.”

This legislation is now forwarded to you for your action.

TAS/rh

Enclosure

cc: Thomas LeBlanc, Executive Vice President and Provost
Eugene Anderson, Dean, School of Business Administration
Ann Olazábal, Vice Dean, School of Business Administration

CAPSULE: Faculty Senate Legislation 2014-19(B) – Name Change of a *Major in Management Science* to a *Major in Business Analytics* (including curricula changes), School of Business Administration

APPROVED:  DATE: 03/06/2015
(President's Signature)

OFFICE OR INDIVIDUAL TO IMPLEMENT: Dean Anderson

EFFECTIVE DATE OF LEGISLATION: IMMEDIATELY
(if other than June 1 next following)

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____

Proposal to Change Name of Management Science Major and Minor to Business Analytics

Rationale and Justification

The demand for business analytics graduates is on a rapid rise as almost every big organization struggles to derive the maximum value from their investments and resources and seeks well trained business analysts. These organizations represent a wide spectrum including consulting companies, financial corporations, technology corporations and many of our partners including CITI, FPL, UHealth, Quantros, VITAS, Publix's Risk Management Division, and Norwegian Cruise Lines, to name a few. The McKinsey Global Institute, which is the McKinsey & Company's business and economics research arm, has predicted that by 2018, the United States could face a shortage of between 140,000 to 190,000 people with deep analytical skills, as well as a shortage of 1.5 million data-savvy managers. In a recent article published in the US News, Business Analytics was ranked at number 7 among 11 hot college majors that led to jobs (<http://www.usnews.com/education/best-colleges/articles/2013/09/10/discover-11-hot-college-majors-that-lead-to-jobs?page=2>).

The proposed major and minor in Business Analytics are aimed to train our students to develop skills necessary to gather, manipulate, understand and make use of data, in particular big data, in a business context. This set of skills touches on the four main phases of Analytics: *data base* management, consolidation and preparation for analysis, *descriptive* (understanding of data, what business inferences can be made from available data), *predictive* (use of data to forecast), and *prescriptive* (use of understanding of data and the forecasts to determine the best courses of action to achieve business goals). The Management Science Department consists of a diverse group of faculty with expertise in several areas within Analytics, including statistics and machine learning, optimization, simulation, and quality management. There are faculty members within the department who are actively doing teaching and research related to each one of the four phases of Analytics. As a result, the department is in a unique position to offer strong Business Analytics major/minor programs to our students.

More specifically, our proposed new course MAS 332: Data Acquisition, Preparation and Visualization, will provide our students adequate background related to data base management, consolidation and preparation for analysis as well as descriptive tools to make sense of the obtained data; our proposed new course MAS 432: Data Analysis, will expose our students to more advanced statistical modeling techniques that are beyond those covered in MAS312 but are critical for predictive modeling; and our two existing courses on Operations Research (MAS 342: Introduction to Optimization and Decision Making, MAS 442: Decision Making under Uncertainty) will provide extremely solid trainings to our students on more effective decision makings, which is related to the Prescriptive phase of Analytics. Our additional electives from both within and outside the department will further strengthen our students' skills needed for the different phases of Analytics. We anticipate that graduates from our programs will possess a strong background in statistics, optimization, programming, algorithms and machine learning. They will be not only in high demand on the job market but also ready to take on more advanced studies at the graduate level.

UNIVERSITY OF MIAMI
SCHOOL of BUSINESS
ADMINISTRATION



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MEMORANDUM

TO: Thomas Salerno
Chair, Faculty Senate

FROM: Eugene Anderson
Dean

A blue ink signature of Eugene Anderson, the Dean, written over the name.

SUBJECT: Revision of curriculum for undergraduate BSBA major and the minor in MAS

DATE: January 30, 2015

This memorandum is intended to memorialize my support for the establishment of a change of name and minor revision of curriculum for undergraduate BSBA major and the minor in MAS in the School of Business, from Management Science to Business Analytics.

This proposal has broad support from the faculty of the School. The revised curriculum and new name for the major and minor were unanimously approved (8-0) by the School of Business's School Council on November 14, 2014. The proposal was then approved by the full SBA faculty at its regularly scheduled meeting on November 21, 2014.

I enthusiastically support the approval of this curriculum revision and change of name for the undergraduate MAS major and minor to Business Analytics, and I look forward to continuing to work with the Faculty Senate regarding this and other initiatives.

EWA:

UNIVERSITY OF MIAMI

SCHOOL of BUSINESS
ADMINISTRATION




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Memorandum

To: Faculty Senate

CC: Dean Gene Anderson, Vice Dean Ann Olazabal

From: Yongtao Guan, Professor and Chair of Management Science 

Date: November 17, 2014

Re: Name change of MAS major and minor to Business Analytics

The demand for business analytics graduates is on a rapid rise as almost every big organization struggles to derive the maximum value from their investments and resources and seeks well trained business analysts. These organizations represent a wide spectrum including consulting companies, financial corporations, technology corporations and many others. The McKinsey Global Institute, which is the McKinsey & Company's business and economics research arm, has predicted that by 2018, the United States could face a shortage of between 140,000 to 190,000 people with deep analytical skills, as well as a shortage of 1.5 million data-savvy managers. In response to this new market trend, the MAS department proposes to change the current name of its major and minor from Management Science to Business Analytics. The change has been enthusiastically approved, embraced, and supported by the MAS faculty as well as the Business School Council and faculty. The proposed new title does not result in any undue overlap with titles of other existing degrees. More detailed justifications are given in a separate file.



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MEMORANDUM

DATE: February 20, 2015

TO: Ann M. Olazabal
Vice Dean for Undergraduate Business Education
School of Business Administration

FROM: David E. Wiles, Executive Director
Assessment and Accreditation 

SUBJECT: Management Science Program Name and Curriculum Changes of Major and Minor to Business Analytics (Updated)

On February 2, 2015, the School of Business Administration submitted a proposal notifying our office of its intent to rename and restructure its curriculum for the Management Science major and minor to Business Analytics. The major leads to the BSBA degree. The program restructuring will allow students to develop the necessary skills to gather, manipulate, understand and make use of data, particularly big data, in a business context. The Department of Management Science consists of a diverse group of faculty with expertise in several areas within Business Analytics, including statistics and machine learning, optimization, simulation, and quality management. There are also faculty members in the department who actively teach and are conducting research related to each of the four phases of analytics. As a result, the department is in a unique position to offer strong Business Analytics programs.

Further clarification was sought and obtained as to the scope of the changes. This memorandum is provided in response to that information.

As part of Business Analytics program restructuring, the following three courses will be created:

- MAS 332 – Data Acquisition, Preparation and Visualization
- MAS 432 – Data Analysis
- MAS 549 – Big Data Analytics

The following are existing courses in the Management Science program that will be renamed and restructured:

- MAS 441 – Deterministic Models in Operations Research (to be renumbered MAS 342 and renamed “Introduction to Optimization and Decision Making”)
- MAS 442 – Stochastic Models in Operations Research (to be renamed “Decision Making under Uncertainty”)

Ann M. Olazabal
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The curriculum changes and course additions involved in the program restructuring will not require the hiring of additional faculty or infrastructure resources. Although a letter of notification will be submitted, the changes are not considered substantive and will not require formal approval from the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) in order to proceed with their implementation.

The renaming of the major and minor from Management Science to Business Analytics can be handled in the same notification letter to SACSCOC.

Please feel free to contact our office should you have any questions or need additional guidance (305) 284-9431.

cc: Faculty Senate
Dr. William Green, Sr. Vice Provost and Dean of Undergraduate Education
Dr. Eugene Anderson, Dean, School of Business Administration