

UNIVERSITY OF MASSACHUSETTS AMHERST  
OFFICE OF THE SECRETARY  
THE FACULTY SENATE

PROGRAM REVISION APPROVAL FORM

50 COPIES REQUIRED

PROGRAM TITLE: Conversion of the Operations Management sub-plan in the FINOPMGT major to a BBA degree in Operations and Technology Management

PLEASE CHECK: GRADUATE  UNDERGRADUATE

DEPARTMENT: Finance & Operations Management (Will become Finance & Operations and Technology Management)

HEAD/CHAIR: Professor Iqbal Agha

SCHOOL OR COLLEGE: ISOM

DEAN: D. Anthony Butterfield

Submission Date: July 6, 2009

Proposed Starting Date: September 1, 2010

I. PROPOSAL DEVELOPMENT

A. Describe the Proposal.

The current FINOPMGT major is sub-divided into two sub-plans: Finance and Operations Management. These areas are quite distinct and lead to much confusion among students and employers when the official student "major" designation is identified as: Finance & Operations Management. The Department of Finance and Operations Management in the Isenberg School of Management proposes instituting a new major in Operations and Technology Management. Consequently, the current major in Finance and Operations Management will no longer have a sub-plan in Operations Management and will be relabeled the Finance major. Thus the Finance and Operations Management Department will offer two majors, one in Finance and the other in Operations and Technology Management.

**The Current Major: Finance and Operations Management**

The Finance and Operations Management department currently offers an undergraduate major in Finance and Operations Management, doctoral specializations in Finance and Management Science, and houses the Finance, Operations Management and Management Sciences disciplines.

Currently the Finance and Operations Management major consists of two distinct sub-plans, one in Finance and the other in Operations Management. The operations management sub-plan within the Finance and Operations Management major was instituted in 1987. The two sub-plans have distinct degree requirements, as reflected by their "degree check sheets" included in Appendix A. The Operations Management sub-plan requires a student to take courses whose subject matter is Operations Management (such as Logistics and Transportation, Simulation, Supply Chain Management, Business Process Optimization). The Finance sub-plan is further divided into the concentrations of Corporate Finance or Investment. All Finance students take courses in Information Technology in Finance and Investments, with more content specific courses being required of students depending upon whether they focus on Corporate Finance or the Investment concentrations.

**Operational Details:**

The major will continue to be housed in the Finance & Operations Management department (to be renamed Finance & Operations and Technology Management) and will not, at this time, need additional financial, administrative, staff or faculty resources. The "operations management" faculty within the department consists of five Professors, namely Iqbal Agha, Soren Bisgaard, Anna Nagurney, Robert Nakosteen, and Alan Robinson, and two Assistant Professors Ahmed Ghoniem and Senay Solak.

- The courses within the FINOPMGT designation that pertain to Operations and Technology Management will form the curriculum for the new major. Courses that pertain to Finance shall form the curriculum for the Finance major.
  - o Current FINOPMGT courses will be re-designated to be either FINANCE or OPSTECH.
  - o The re-designation of courses is summarized in the "List of FINOPMGT courses and their conversion to Finance & Operations and Technology Management courses" given in Appendix B.
  - o The separate list of OPSTECH courses is shown in the "Operations and Technology Management major Course List" provided in Appendix B.

- The courses have been renumbered to reflect the sequence in which the courses are taken by the students. The titles of some of the courses have been altered to better reflect the course content.
- The curriculum for the Operations and Technology Management major remains largely the same as that for the Operations Management sub-plan in the current Finance and Operations Management major. The degree check sheet for the Operations and Technology Management major is given in Appendix B. Apart from the new course numbers, students now have the option to take either Managing High-Performance Operations (OPSTECH 400) or Supply Chain Management (OPSTECH 460).

#### **Appendix A**

Degree Check Sheet – Finance sub-plan in the Finance and Operations Management major

Degree Check Sheet – Operations Management sub-plan in the Finance and Operations Management major

#### **Appendix B**

List of FINOPMGT courses and their conversion to Finance and Operations and Technology Management courses

Operations and Technology Management major Course List

Degree Check Sheet – Proposed Operations and Technology Management major

### **B. Provide a brief overview of the process for developing the Proposal.**

The faculty in the Finance & Operations Management department have had discussions regarding the need, from both a student as well as industry perspective, to separate out into two distinct majors the current sub-plans of Finance and Operations Management within FinOpMgt. In addition, the Operations Management faculty discussed the incorporation of the term "Technology" in the title of the major to better reflect their work, to be more representative of industry needs and trends, and to reflect the expansion of scope and scale of business operations involving new technologies. The Finance & Operations Management department provided an initial proposal to the Isenberg Undergraduate Curriculum Committee in December of 2007. This proposal was reviewed by the School Curriculum Committee and sent back to the department faculty with some suggested revisions. During the 2007-08 academic year, the Isenberg Associate Dean for Undergraduate Programs also held informal discussions with Finance and Operations Management students. The students were extremely supportive of this separation leading to two distinct recognizable majors. They provided strong feedback regarding the confusion among students and difficulty in communicating with corporate recruiters due to their "official" major designation of FINOPMGT. Bryan Harvey in the Provost's Office was also consulted and provided valuable input, after consulting with the President's Office, on the approach and appropriate process that needed to be followed in proposing a new major/degree designation on campus. The faculty continued to work on the proposal with a revised proposal being submitted to the School UG Curriculum Committee in December of 2008. At this time the School committee voted to approve the proposal pending some minor corrections needed to course numbering and course titles. This revision took place over the Spring 2009 semester.

## **II. PURPOSE AND GOALS**

Describe the Proposal's purpose and the particular knowledge and skills to be acquired.

**Rationale for the Operations and Technology Management Major:**

Over the past two decades, the landscape of business, both domestic and international, has undergone major changes. Operations and technology are foundational underpinnings of most business processes. With increasing impacts of globalization and technological improvements, business operations are intrinsically defined by the technologies employed to functionalize them.

- Products, corporations, business practices, operational frameworks have all changed radically.
- Global politics and economics are bringing into play factors that bring to the forefront the need for technology driven, process-oriented thinking.
- The need to effectively integrate operations technologies into the curriculum is now central to meeting the needs of industry.
- An integrated, well-coordinated operations and technology management focus will differentiate our students in the market place.

New technologies are sought and adopted in the business world as a means to improve business processes and thereby make efficiency and productivity gains. Business processes and operations are fundamental to the functioning of a business whether in the service or manufacturing sectors of a country's economy. Operational processes, whether inventory replenishment, NFL team scheduling, flight departures, border security, logistics, or order fulfillment are defined by the governing information and product flows and the technologies used to implement and track them. Operations managers make decisions that impact design of and coordination of processes that

govern the creation and delivery of goods and services. Such decisions, whether strategic, tactical, or operational might pertain to procurement, logistics, scheduling, inventory deployment, production planning, distribution, warehousing, project planning, or personnel scheduling. Operations and their underlying, associated technologies are unique to industries—food, pharmaceutical, office supply, toy, etc.—and impact the effectiveness and efficiency of providing product. For instance, one job in the airline industry would focus on coordinating flight and maintenance scheduling, fuel consumption, and safety monitoring while another might focus on flight scheduling. A job in health care might focus on managing patient flow, coordination of the pharmacy, laboratory and transportation of patients and equipment. Jobs across industries are in the areas of procurement, supervision of production, management and tracking of inventory, management of materials flow, product design, improvement of process quality, or transportation to name a few. Underlying technologies define the ease and efficiency with which a consumer makes a hotel reservation, buys an airline ticket, ships a package overseas.

A student majoring in Operations and Technology Management will be equipped with skills that meet the needs of the business world, whether in corporate consulting, logistics, production, or management of business technologies. The subject matter encompasses what is now being referred to, in the marketplace, as business intelligence, business analytics, and business process optimization.

**Student Data:**

Demand for the Operations and Technology Management major is evidenced by the dramatic increase in the number of students opting to take the current Operations Management sub-plan. In Fall, 2007 there were 32 declared Operations Management students (junior and senior level) which has increased to our most recent total of 96 students in Spring 2009. This number will surely increase as incoming juniors will declare their majors in early October. The number of graduating seniors has increased from 25 in May 2007 to an expected graduating class in May 2010 of 64. The Isenberg School has responded to this interest from students as well as demand from industry by hiring two Assistant Professors this past year (FY2009).

Students majoring in Operations and Technology Management will have a multitude of employment possibilities across industry segment. Our Operations Management students have been employed by the consumer goods industry interested in proficiencies and technological applications to their supply chain systems. Over the past three years these companies have included Macy's, Kohl's Department Stores, Pepsi bottling Group, Lowe's, and Toys R Us. In addition, our students have also been placed in the technology field by such companies as Pratt and Whitney, United Technologies Corporation, and IBM. In addition, the consulting firms, such as Grant Thornton and Deloitte Touche Tohmatsu, have also employed our OM students.

**Appendix A**

**Degree Check Sheet – Finance sub-plan in the Finance and Operations Management major**

**Degree Check Sheet – Operations Management sub-plan in the Finance and Operations Management major**

**Appendix B**

**List of FINOPMGT courses and their conversion to Finance and Operations and Technology Management courses  
Operations and Technology Management major Course List  
Degree Check Sheet – Proposed Operations and Technology Management major**

**Appendix C**  
**Status letter from AACSB indicating current Accreditation**