MASTER OF SCIENCE IN INNOVATION AND TECHNOLOGICAL ENTREPRENEURSHIP

HEALTHCARE INNOVATION & ENTREPRENEURSHIP OPTION

Program Description
The Master of Science in Innovation and Technological Entrepreneurship, with HealthCare Concentration, consists of ten courses (30 credits), including 9 core courses (27 credits), a 1 course (3 credit) practicum. Each student will participate in the development and delivery of a team capstone project (through the 1 course practicum) which will be reviewed by an external professional panel. Proposed course titles are presented below in Table 1.

Table 1. Courses in MS ITE- Healthcare Innovation & Entrepreneurship Option

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<th>Requirements</th>
<th>Courses</th>
<th>Department</th>
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| MSITE Program Core Courses - 12 Credits, 4 courses | 64.650 - Innovation & Emerging Technology  
62.630 - Market Research for Entrepreneurs  
61.640 - Financing Innovation & Tech. Ventures  
66.630 - New Product Development | Entrepreneurship  
Marketing  
Finance/Accounting  
Management |
| HI&E Option Core Courses - 15 Credits, 5 Courses | 64.655 - Corporate Entrepreneurship  
66.640 - Managing Entrepreneurial Teams  
3 courses from Health Informatics & Management (select from the list in Attachment 1) | Entrepreneurship  
Entrepreneurship  
HI+M |
| HI&E Option Capstone - 3 Credits - 1 Course | 64.691 - HealthCare Innovation & Entrepreneurship Project (Practicum; jointly conducted by HI+M and MSITE) | Entrepreneurship  
and HI+M |

Target Audience
The MS ITE Healthcare Innovation & Entrepreneurship Concentration program will be targeted at current healthcare professionals, such as hospital managers/administrators, clinicians, physicians and other medical professionals. The Program will also be offered to fresh graduates who wish to enter into healthcare industries as a career choice.

Contact Persons
Manning School of Business, Graduate Programs Office  
Ashwin Mehta 978-934-2728 or MSITE@uml.edu
Admissions Requirements

Working Professionals
Admissions to the program will be determined based on an overall review of the following applicant materials: undergraduate degree and performance in science, engineering or business (other areas will be considered if the applicant demonstrates significant work experience in a technical field), GMAT or GRE score, three letters of recommendation (professional and academic) and a letter describing the applicant’s professional goals and how earning a MS will assist in their professional development. For applicants from non-English speaking countries, a minimum score on the Test of English as a Foreign Language (TOEFL) of 600 (paper-based) or 100 (Internet-based) must be obtained.

Plus-One Program (formerly the Accelerated Bachelor’s to Master’s Program)
The Plus-One Program option offered by the College of Management is an accelerated program offered to encourage outstanding undergraduate students in engineering, science and business to continue study at the graduate level. Undergraduate students in these majors (i.e., science, engineering or business), who have a GPA of 3.00 or better at the end of their junior year must apply for this program before they complete their undergraduate graduation requirements. Students who plan to apply to this program must meet with the M.S. program advisor by their junior year to discuss any additional course requirements.

General eligibility guidelines for admissions to a UML Accelerated Bachelor’s to Master’s Programs can be found online at
http://www.uml.edu/catalog/graduate/degree_requirement/bachelors_masters.htm.
Attachment 1
Courses offered by Health Informatics and Management (HI+M) in the School of Health and Environment. Students will select 3 courses from the following list.

32.514 Health Care Management Credits: 3
This course provides a framework for addressing management problems in health care organizations. It provides students with an overview of the manner in which health care institutions are organized and governed, the role of management, physicians, nurses and other clinical and support staff in these organizations, and the management systems designed for their efficient and effective operation. (Fall, Spring)

32.502 Organizational Behavior in Health Care Credits: 3
An overview is provided of the organizational structure & behavior of individuals in health careers institutions and an examination of the role of managers, clinicians and other leaders is provided. (Spring) (pre req: 32.514)

32.515 Applied Health Economics Credits: 3
This course introduces graduate students to the theory, practice and application of health economics to contemporary health policy issues in the United States. No prior coursework in economics is assumed. (Summer)

32.635 Healthcare Project Management Credits: 3
This is a graduate level course providing a comprehensive foundation to Project Management as it applies to healthcare. Students will be introduced to the theory and concepts of project management as it is applied to healthcare projects specifically, and the tools used to manage projects with a specific focus on healthcare information. (Fall)

32.626 Leadership and Change Credits: 3
The strategic planning and management of health care organizations is covered. Development and implementation of strategic plans is covered. Alternative theories of organizations and change are explored. The capstone experience for the major. (Fall)

32.607 Healthcare Information Systems Credits: 3
This course provides health care professionals with a practical understanding of health care information systems sufficient to work effectively with and support information systems design, development and implementation within a variety of health care settings. The course includes analysis and discussion of actual case examples. (Fall, Spring, Summer)

32.531 Health Informatics Credits: 3
Introduces the student to how health science (theory and practice), computer science (hardware) and information science (software) are integrated in the management of health care data into information and knowledge. Overview of current and future technologies for the management of health care information will be presented. Comparisons of how different health care facilities manage information will be discussed. Prerequisite: Ability to use a computer and application software. (Fall, Spring) (pre req: 32.607)
32.527 Healthcare Planning and Marketing Credits: 3
Students learn the fundamentals of planning and marketing and how they are applied to the different aspects of the health care system.

32.511 Health Care Finance Credits: 3
This course provides students with a practical understanding of basic health care financial issues, financial reporting and analysis, and provider payment structures. The course enables students to read, analyze and use health care financial information in today’s healthcare environment. (Fall, Spring) (not to be taken first semester)
Courses offered by the Manning School of Business

**64.650 Innovation and Emerging Technologies (3 credits)**
This course examines technological innovation and its relationship to value-creation and business strategy. Emphasis is placed on emerging scientific and technical innovations and the opportunities and challenges they present to both existing businesses and new venture entrepreneurs. The overall goal of this course is to help you to understand, appreciate and learn to manage the technology innovation process. Students examine innovation strategies, planning models, evaluation models, licensing and the commercialization process required to launch new businesses around innovative products and technologies.

**62.630 Market Research for Entrepreneurs (3 credits)**
In this course students will learn and apply various marketing research techniques that will enable them to succeed as entrepreneurs. Some of the topics we will cover include: assessing customer needs, estimating market demand, deciding the features of the proposed product/service and the price that would be most attractive to their target market etc. The course will provide students with an overview of key marketing concepts, an understanding of the statistical methodology behind the market research techniques and practical application of the techniques via cases and projects.

**61.640 Financing Innovation and Technology Ventures (3 credits)**
This course focuses on strategies for financing innovation and new technology ventures both within a firm and on a stand-alone basis. Topics covered will include: different types of business organizations; different sources of funding including internal sources and external source such as angel investors, venture capitalists, etc.; short-term and long-term financial planning and forecasting; business valuation; term sheet negotiation and exit strategies including mergers and acquisitions and IPOs. Each aspect of the course will be covered within the context of a business plan and venture life-cycle.

**66.630 New Product Development (3 credits)**
This course will enable students to understand the complexities involved in new innovation and technology-based product development. Through examples and exercises, students will be exposed to such topics as creative problem solving, customer/suppliers/partners involvements and inputs processes, integration among all functions, building and managing cross functional teams, rapid prototyping and development, creating a learning organization and measurements.

**64.655 Corporate Entrepreneurship (3 credits)**
This course focuses on entrepreneurship in established companies. Corporate Entrepreneurship (CE) is a process by which companies adopt a conscious strategy to encourage creativity, innovation, outside-the-box thinking, experimentation and risk taking. As a result, companies promoting and implementing CE strive for competitive advantages in rapidly changing global markets. The course will cover components of CE, developing & implementing CE strategies and managing CE.
66.640 Building & Managing Entrepreneurial Teams (3 credits)
A critical element of success in the launch of new products, services and companies is the composition and experience of the team members. This course examines the composition, development and lifecycle of entrepreneurial teams within the context of startups and existing corporations. Students will develop an understanding of the need for diverse experiences and skills among team members along with an understanding of how teams change as entrepreneurial processes progress. A particular emphasis will be placed on improving students communications and collaboration skills in a cross-functional team context. Students will also explore evolving open collaborative approaches employed by companies to accelerate innovations by using customers, suppliers, partners and other organizations outside the four walls of a company.

Capstone Experience
64.691 Practicum: Healthcare Innovation and Entrepreneurship (3 Credits)
Students will work on a field project in the healthcare industry that incorporates the entire process of concept development, validation, resource needs identification, business planning and implementation planning. Students will be guided by faculty and industry professionals. They will apply the knowledge and skills acquired in all of their course work to bring an idea to fruition.