



ISENBERG PROGRAM

for the Integration of Management, Engineering & Science

UNIVERSITY OF MASSACHUSETTS AMHERST

Overview

Established with the visionary support of Ronnie and Eugene M. Isenberg in 2002 to catalyze interdisciplinary work in management, engineering and science, the Isenberg Program brings an integrative approach to its programs, using technology, innovation, and entrepreneurship as complementary crosscutting themes to involve faculty and students from the Isenberg School of Management, the Colleges of Engineering and Natural Science & Mathematics and other schools and colleges.

The Isenberg Program includes two endowed professorships, one in Management (Soren Bisgaard, Ph.D.) and one in Engineering (Michael F. Malone, Ph.D.) with a third in Natural Sciences and Mathematics to be filled shortly. Led by Professor Bisgaard and Dean Malone, the program develops and delivers interdisciplinary programs to enhance and accelerate technology innovation.

Program Co-directors

Soren Bisgaard, Ph.D., Eugene M. Isenberg Professor in Integrative Studies; Professor of Technology Management

Michael F. Malone, Ph.D., Ronnie & Eugene Isenberg Distinguished Professor and Dean of Engineering

Associated Faculty

Joseph C. Stokes, Lecturer in Corporate Finance, Isenberg School of Management

Affiliated Faculty

Paul Friedmann, M.D., Executive Director of the Pioneer Valley Life Sciences Institute and Dean's Professor for Biomedical Innovation

Lawrence M. Schwartz, Ph.D., Science Director of the Pioneer Valley Life Sciences Institute and Professor of Biology

Education for the Next Generation of Innovators

The **Eugene M. Isenberg Awards** support graduate students who demonstrate academic merit and a commitment to the integration of science, engineering and management.

Engineering Management Minor students supplement their engineering studies with a set of foundation courses in accounting, finance, marketing, and management plus a capstone interdisciplinary team project to develop a business plan for a technology-based venture.

The **Technology, Innovation and Entrepreneurship course** is an interdisciplinary (graduate & advanced undergraduate) class that provides background, skills, and innovation experiences that prepare students with a systematic approach to technology innovation and entrepreneurship. The class is offered annually.

Catalyzing, Promoting, and Accelerating Technology Innovation Today

The **Innovation Challenge (IC)** was created in 2005/06 to be a high profile annual campus business plan competition that would inspire student and faculty innovators. The 2007-08 competition attracted more than \$90,000 in donations from 18 sponsors representing a variety of industries.

As the core activity of the Technology, Innovation and Entrepreneurship course, **student projects in innovation development and business planning** provide hands on educational experiences while **adding value to new technologies from campus or industry partners**.

Experimental initiatives include the **Pioneer Valley Technology Innovation Development Exchange**, a vehicle for bringing together several educational institutions with industry to accelerate innovation and engage students with real world experiences, and the **Innovation Laboratory**, to provide assistance to promising teams and researchers.

Our Approach to Innovation, Entrepreneurship and Technology

Innovation meets a societal need by the development and commercialization of a new product or service, a new method of production or provision, a new method of transportation or service delivery, a new business model, a new market or a new form of organization. We focus on innovations based on science and engineering discoveries and inventions; especially those being developed by the campus and/or its research, education, and industry partners.

Invention, discovery, and novel ideas are absolutely essential to but not wholly sufficient for innovation.

Effective innovation development is an interdisciplinary, collaborative process that requires diverse perspectives, expertise, and resources.

Entrepreneurship is the set of skills, capabilities, tools, techniques and activities that create economic and/or social value based on new ideas, unmet needs and emerging opportunities. It is important to differentiate entrepreneurial ventures from small businesses that are based on formulaic, proven approaches; entrepreneurial ventures have the potential for broad-based impact and often require creation of a new approach. Accordingly, entrepreneurship may be practiced in a large organization as well as in a small one.

Many business methods and technologies we take for granted today were first proven in the marketplace by entrepreneurs taking risks in an effort to accomplish something new; grocery stores, telephonic communications, personal computers, disease-based medical research foundations, and fast food are all examples of this.

Technology is the application of scientific or engineering knowledge to create new capabilities and/or original solutions to problems. While technology is often thought of as the product of science or engineering, throughout our initiatives we emphasize a broader definition. For example, technology makes feasible new business models in both the for-profit and non-profit sectors; computer applications are creating new forms of music and visual arts; and the Internet is enabling new types of social networks. With this perspective, we engage innovators from all academic disciplines and look forward to working collaboratively with them.

Get More Information

We welcome interest from students, faculty, technologists, entrepreneurs, and innovation-driven companies and economic development organizations interested in our program. For more information visit www.umass.edu/innovation or contact:

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