New Program in Development

Professional Science Master's Program

TGERS

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The PSM degree program "is attractive to students who want to work in nonacademic sectors interdisciplinary careers, team-oriented environments, managerial or other professional level positions, or emerging areas of science and scientific discovery."

Quote from Science Professionals – Master's Education For A Competitive World, National Research Council, 2008

PSM Program Update

Rutgers University is joining the national effort of re-shaping the country's professional workforce with the Professional Science Master's Program. Founded by Dr. David Finegold, Dean and Professor of the School of Management and Labor Relations, the PSM Program will offer a Master of Business and Science degree with a concentration in science and/or engineering.

A recent National Research Council report has recommended that fouryear research universities invest in professional science masters' degrees to increase American industrial competitiveness. Today, U.S. businesses need workers who not only possess up-to-date knowledge in their fields, but also have multidisciplinary entrepreneurial skills that can translate scientific and technical knowledge into profitable products and services. Such workers understand the linkage between technology and business, know how to lead innovations from idea to commercialization, are aware of market and customer needs, are familiar with financial decisions, and have developed leadership and team-building skills.

The Professional Science Master's Program at Rutgers is a combination of an MS and MBA degree and will be called an MBS (Master of Business and Science). The MBS degree comprises 43 credits, with up to 24 credits in the sciences and/or engineering and 19 credits in business.

The curriculum tracks being submitted for approval are Biomedical Engineering, Chemistry, Electrical and Computer Engineering, Food Science, Global Agriculture, Industrial Mathematics, Statistics and Biostatistics, Urban Environmental Analysis and Management, Urban Ecosystem Sustainability, and Sustainability. The business courses will be financial management, marketing, communication and leadership, management of science/technology, ethics and professional colloquiums, and a capstone course teaching how to evaluate a technology and create viable business plans.

The PSM Program is now undergoing the approval process. The process involves approval by the various departments and schools, the Graduate Schools in Newark, New Brunswick, and Camden, the Board of Governors, the New Jersey Commission on Higher Education, and the New Jersey Presidents' Council. We anticipate offering the MBS degree in 2010. Please check our website for the latest updates in the approval process.

PSM at Events



PSM at Rutgers Day April 25, 2009



Entrepreneur and Space Adventurer Greg Olsen at Rutgers Entrepreneurship Day May 13, 2009



Rutgers Entrepreneurship Day May 13, 2009 Panelists left to right: Dan Hoffman, David Ewab, Dr. Randal Pinkett, Lexy Funk, Michael Hofman

Science and Technology Certificate

The Certificate in Science and Technology Management is designed to introduce students to the management of science and technology. Some of the goals for the Certificate in Science and Technology are to understand the connection between technology and business and how technical work impacts the business of organizations; understand the fundamental concepts of marketing, business strategy, innovation and entrepreneurship; understand the basic concepts of financial management and be able to assess the financial aspects of a new scientific venture or project; and acquire and develop leadership skills for inspiring, motivating, directing and coaching individuals and teams.

This certificate will be offered in Fall 2009 and will be available to all graduate students in the sciences and engineering, part-time students from industry, and post-doctoral fellows in Fall 2009. Courses are offered through the Rutgers Business School (RBS), the School of Management and Labor Relations (SMLR) and the Graduate School New Brunswick.

PSM in the News

The coverage of the Professional Science Master's Program continues to gain prominence throughout the country. The articles listed below are examples of the type of coverage the PSM program is receiving.

The recent coverage highlights an article in *Science* by Dr. Rita R. Colwell, former NSF Director, who chaired the National Research Council Committee on Enhancing the Master's Degree in the Natural Sciences.

For additional articles on national media coverage of the PSM Program please visit us at http://psm.rutgers.edu

Science

March 27, 2009 Rita R. Colwell Professional Science Master's Programs Merit Wider Support http://www.sciencemag.org/cgi/reprint/323/5922/1676.pdf

ScienceNews February 14, 2009 Janet Raloff AAAS: The New Masters of Science http://www.sciencenews.org/view/generic/id/40906

Association for Women in Science Winter, 2009 Eleanor Babco & Nancy Vincent So You Want to Work in Business? http://www.npsma.org/assetlibrary/AWIS_Winter_2009_Issue.pdf

Nature Magazine

May 2009 Genevive Bjorn A Master's Degree with a Business Spin Gains Popularity http://www.nature.com/nm/journal/v15/n5/full/nm0509-465.html

Funding Opportunity

The America Competes Act (Public Law 110-69) is authorizing the National Science Foundation (NSF) to provide grants for the development or expansion of PSM programs throughout the country. The Request For Proposals (RFP) from NSF is under internal review and should be out in mid-June.

Proposals submitted are expected to focus on areas of interest to NSF such as science and engineering rather than health related or bio-pharmaceutical concentrations. NSF will look for a strong scientific focus as well as professional components. Since the goal of the stimulus package is to put people to work, NSF will look for program proposals that can be made operational quickly (no planning grants) and that have employer involvement (private or government).

The Rutgers Professional Science Master's Program is planning to submit a proposal. If anyone at Rutgers would be interested in collaborating with us, please contact Deborah Silver at silver@ece.rutgers.edu.

Submission of Curriculum Track

If your department or school would like to submit a curriculum track, please contact Deborah Silver at 732-445-5546 or e-mail her at <u>silver@ece.rutgers.edu</u> or Aleta You at 732-445-5117, ext. 292 or aleta@rci.rutgers.edu

Program Outreach

Interested students can find updated information on our website and fill out our survey at <u>http://psm.rutgers.edu</u> We currently have over 200 individuals who are on our student list serv who have expressed an interest in the MBS degree.

Acknowledgement

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Eduventures Survey

In February, 2009 a report, commissioned by Rutgers University, was released by Eduventures Inc. that describes the results of a survey that was administered to employers in the New Jersey region.

Key findings from the report indicate that overall, interviewed organizations were receptive to the proposed Master of Business and Science degree. Nearly all noted that the combination of either a science or engineering curriculum with business and management was an ideal pairing. In addition, the majority noted that an employee with an MBS background would be valuable to their organization.

Concentrations that were of particular interest were computer technology and systems engineering, applied and industrial physics, clinical and regulatory affairs, environmental monitoring, environmental sciences, human-computer interaction, industrial mathematics, and science instrumentation.

For a full copy of the survey, please contact the PSM central office at 732-445-5117, ext. 293.

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