Applying research to real world problems

Stephen Hansen/College Talk



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Photo: SIUE Photo

"We need people who can apply theory and research to real-world problems," Craig Eversmann, president and CEO of MSSC in Collinsville, said. "Our company makes industrial stencils, inks and applicators for labeling products like pipes, equipment and machines," he explained. "My problem is finding employees who understand the world of business and government regulation and who know the world of environmental biology and chemistry." He found the answer to his need for skilled people at SIUE's environmental science management program.

The environmental science program offers a unique graduate degree in environmental science management.

Environmental science is the study of human interaction with the physical environment.

The environmental science management program is a new kind of graduate program called a "professional science master's" or PSM.

The program emphasizes a combination of science and business courses, giving students a more professional and career oriented application for their degree.

SIUE began offering the degree more than 10 years ago with a grant from the New York based Alfred P. Sloan Foundation.

SIUE was one of only a dozen universities nationwide to receive a grant and to implement this kind of innovative program.

MSCC employs 30 people and Eversmann said that 35 percent of the company's sales are international.

"The challenge we face is how to meet the standards and regulations of many different nations," he explained. Ink, for example, is considered a hazardous product because it is flammable and can be toxic to the environment. Different countries have different rules and laws in place for handling ink.

"Figuring out how to make an ink stick on a variety of surfaces under different climate conditions while meeting a nation's rules and regulations are a huge challenge," Eversmann added.

As a manufacturing problem, MSCC had to develop a product that met the variety of conditions and standards in the global marketplace.

Finding answers to these problems required research.

And Eversmann turned to SIUE for help.

"I called the university and talked with Dr. Kevin Johnson, head of the environmental science program," he said. "After some discussions, we interviewed our first students and selected our first intern from the program."

The student met all of Eversmann's expectations.

"She was incredibly helpful," he said. "She knew the chemistry and toxicology of inks and she thoroughly researched the rules and regulations of the nations where we were marketing our products."

The student worked out so well for MSCC that Eversmann went back to SIUE for a second intern. Michael Strope had received his bachelor's degree from the University of Illinois and was pursuing a master's degree at SIUE in environmental science management.

"I was looking for a program that gave me some practical experience. SIUE's program was perfect because it combined my interest in science with business and gave me a career path," Strope said. By giving him the opportunity to apply biological and chemical sciences to actual business situations, the environmental science management program prepared Strope with the skills and experience MSCC needed in an employee.

Strope moved from being an intern to full-time employee at MSCC. "He is open, willing to learn, flexible and professional," Eversmann said of Strope. "He has a deep understanding of science, great research skills and ability and practical courses in business management and accounting, all of which he learned in his program at SIUE."

The blend of science and management into a practical and professional program is the purpose of the environmental science management program.

Giving students like Strope the skills they need to develop a meaningful professional career is the main goal of the program.

And, meeting the needs of employers like MSCC is why the environmental science management program is designed the way it is.

Eversmann and Strope were in full agreement that the marriage of theory with practice along with science with business makes SIUE's program unique.

Stephen Hansen, Interim Dean, College of Arts and Sciences, SIUE