

Inaugural professional science master's degree class hits the ground running

BY MIKE UNGER

Even when Michelle Chesnut, armed with an undergraduate degree in engineering, was teaching classes for Microsoft certification programs, she knew the environment was her passion. When she finally decided to make a career of science, she was pretty sure that she didn't want to go into teaching or research.

An exhaustive search for a graduate program that met her needs turned up only one university: American.

AU's unique professional science master's (PSM) degree, in its first semester, is designed to provide a viable option to scientists who wish to pursue a career—and not more schooling—after school.

"For years the only thing for students with various degrees in science to do was to go on and get a PhD, which is really unfortunate," said Larry Medsker, the program's director.

That's why Medsker pursued—and landed—a \$105,000 grant from the Alfred P. Sloan Foundation for the development of the new degree program. For the past few years, Medsker had listened while friends and colleagues from the business world bemoaned the lack of young potential employees with solid science backgrounds.

"A guy from Northrop Grumman told me he really had given up on universities," Medsker said. "He didn't think students could solve problems without answers in the back of the book."

Medsker spoke to faculty members to gauge their interest, and then approached AU's administration to win approval for the program. The program had to be advertised, a curriculum created, and students admitted.



DAN FONG

Rachel Gorski, left, Michelle Chesnut, middle, and Courtney Elkins conduct research at Evitt's Run in West Virginia. The three are students in AU's new professional science master's program.

"It's like starting a small business," Medsker said.

This semester, 11 students are pursuing degrees in one of three areas: applied computing, biotechnology, or environmental science and assessment.

"I think the course is effective for me because it mixes theory with practical application," Chesnut said. "Without the application, I would not be able to apply this to real field work without further instruction. It also helps to make the theory relevant."

Students must take 12 courses and complete an internship over the course of the two-year program. Once a month leaders from the professional world, many of whom serve on the program's advisory board, speak to the students about their own experiences.

Learning is not restricted to the class-

room. Last month, Chesnut and her classmates went to Evitt's Run in West Virginia, where they measured pH, temperature, salinity, and dissolved oxygen, among other things. They are learning how to evaluate rivers and streams in order to analyze their health.

"My professors try to prove something that actually is in environmental science rather than lecture," she said.

Medsker hopes to push enrollment to between 30 and 40 by next year.

"One of the great parts is the cohort nature of the program," he said. "We have participants who get to know each other. It's a very powerful concept."

"People might see this as an alternative to a MBA, or someone could get in on the technical side and become a science writer. It's about applying science to all different areas of society."