New Biotech Degree

One of the important roles that SCF plays is to respond to the needs of the community. The College asks and listens to business and industry leaders to find out what types of skilled employees are needed. Most recently, the community advisory committee pointed out the need for those with skills and knowledge in biotechnology.

The economic development councils of both Sarasota and Manatee wrote letters of support. They see that having such a program in place is an enticement to employers. (Already, Roskamp Institute is spinning off three companies that are production companies that these students would be qualified for.)

The new program gives students many options. "Graduates will have the skills to carry out the procedures for these companies. They could also be involved as quality control technicians," said Natural Science Department Chair Jane Pfeilsticker.

They could be specialized research technicians as well. "We have a course in cell culture, which leads to a myriad of opportunities," she added.

The Biotechnology students are taking classes that pre-med and pre-pharmaceutical students take. "It's not for the weak of heart or brain," explained Pfeilsticker. After that, there's a series of seven or eight combined lecture and lab courses. "So it goes back and forth. We talk about something for 15 minutes, then we work on it for 15 to 20 minutes. As we're talking about it, they're holding the equipment. It solidifies what they hear."

This is a proven way to help students learn to put together what they hear in lecture with what they will practice in the field. The first group of students in the A.S. program in Biotechnology started August, 2011. The College added celebrated scientist Matthew Thomas to the faculty to teach in the program.

Lab in a Box

It's not a secret that today's high school students are not excited about the sciences. So the National Science Foundation (NSF) granted funds to SCF to go directly to the high schools with some exciting hands-on science experiments. The *Lab in a Box* program is designed to take science labs to high school students. "The goal is to increase academic rigor for biology," emphasized Professor Jane Pfeilsticker. "Because the experiments are so engaging, it will increase student interest in biology, chemistry and some biomedical engineering." *Lab in a Box*, which really takes up the trunk of two cars, contains $14,000 of equipment and supplies per box. With this, high school students can do some high-level lab work.

The program started with teaching the teachers. In the fall of 2011, the College worked with three teachers each from Sarasota and Manatee county schools. In year two, three additional teachers will be trained. "Then we take it to the high schools with five or six well-trained SCF students." Once the team is in the school they will conduct some fascinating lab work. Explained Pfeilsticker, "One is a DNA fingerprint and the other is a transformation experiment with a gene from a jellyfish which is transformed into a bacterium." The bacterium gives the jellyfish its glow.

Soon, SCF students will be saying they got their start with *Lab in a Box*. The community benefits from having more, better-trained scientists and health care workers.