

MentorLinks continues to ramp up tech ed programs

By Madeline Patton, Published November 28, 2012

At the midpoint of their [MentorLinks](#) grants, eight community colleges that are part of the 2011-13 cohort have made significant strides in improving technician education programs with the help of experienced two-year college educators.

Three MentorLinks colleges—[Mount Wachusett Community College](#) in Massachusetts, [Northeast Iowa Community College](#) and [Eastern Shore Community College](#) (ESCC) in Virginia—submitted proposals to the [National Science Foundation's Advanced Technological Education](#) (NSF-ATE) program in October. Although applying for the large, competitive grants is a goal of MentorLinks, it is not required and is usually not done until the second year of the program.

"We have learned so much from this program in order to write that (NSF-ATE) grant," said Robin Rich-Coates, a biology and chemistry professor at ESCC, where she also serves as assistant to the vice president of academic and student services.

The [American Association of Community Colleges](#) (AACC), which manages MentorLinks, uses a portion of its NSF-ATE grant to support networking among NSF-ATE grant recipients to administer the program.

The benefits of interships

MentorLinks is helping Rich-Coates and John Floyd, an assistant professor of electronics, improve connections between their small, rural college's electronics program and [NASA's Wallops Flight Facility](#) and the companies that supply contract workers for it. With guidance from mentor Jim Hyder, who serves as the industry liaison for the [ATE Southwest Center for Microsystems Education](#) in New Mexico, they have reached all their first-year goals and responded to several new opportunities that followed the new relationships with NASA and its contractors. They include:

- Seven ESCC students are interning at NASA.
- An intern who was hired for a full-time NASA job is now working full time for the Navy, which now wants to start its own internship program with the college.
- The success of the electronics interns prompted an employer to seek an intern from the college's information systems technology program. This led ESCC to create an internship program for this field; four information systems students received internships in 2012.
- ESCC students and Floyd participated in NASA's Rock On! program and had their experiment included on the payload of a suborbital rocket launched in June.
- Reactivation of the industry advisory committee for the electronics program strengthened the college's relationship with NASA Wallops, the area's aerospace contractors and the University of Maryland-Eastern Shore. ESCC President Linda Thomas-Glover was invited to join the industry association for Wallops' contractors.

Flexible seed money

Seeing internships as an important step for students to get jobs in the aerospace industry, ESCC used part of its MentorLinks grant to provide \$1,000 stipends to its interns, who are not paid by NASA or contractors. (Recently, NASA agreed to cover one intern's stipend to help the college grow the program. The college's foundation has provided stipends as well.) That may not seem like much, but for some students it was a nearly 50-mile commute to the facility.

"For some of the students, participating in an unpaid internship would not have been possible without some money for gas," Floyd said.

That kind of flexibility provided to MentorLinks colleges is a key attribute of the program, said Ellen Hause, director of innovative learning and student success at AACC.

"We allow colleges to fine-tune their objectives and to adjust their budgets based on their meetings with their mentors and how their plans evolve," she said.

Colleges in the program have used the grant for professional development, release time for faculty to prepare new curricula and for faculty to travel to other community colleges to learn how they implemented advanced technology programs.

Making inroads

Other achievements of community colleges that are part of the MentorLinks 2011-13 cohort:

- In Illinois, [Joliet Junior College](#) (JJC) is adding "green" skills to the preparation for many technical careers. The MentorLinks team has surveyed representatives of the college's 13 industry advisory boards and two trade unions about what green skills the college

should add to the curriculum. JJC is also reaching out to K-12. Learning from their MentorLinks colleagues at other colleges, faculty developed camps and other activities for middle school students to raise awareness about the sustainable energy careers paths available through JJC. At a school with a recycling program, for instance, they presented information about multiple careers involved in recycling.

- Across the state, [Kaskaskia College](#) is raising awareness among faculty and students about geospatial (GIS) technologies and how they're used in various technical fields. The college has also: added two introductory GIS courses; developed a six-course, 19-credit-hour certificate; and is creating a geospatial technology degree program.
- In Wisconsin, new information technology (IT) security courses have been incorporated in the existing IT degree program at [Fox Valley Technical College](#). The courses form the IT security certificate program that faculty developed to attract first-generation and low-income college students. Next year, the college will analyze the new program's effectiveness, but examining the curriculum is already generating plans for other projects.
- [Mount Wachusett Community College](#) is focusing on the medical device and biomanufacturing industries that are growing in New England. It is developing stackable modules for non-credit credentials, certificate and associate degree programs. In addition to creating new curricula, faculty members have teamed with local vocational schools to adjust their advanced manufacturing programs to better prepare students for careers in the field.
- [Northeast Community College](#) in Nebraska increased the access of rural high schools to IT courses in programming and networking. In addition to recruiting students from those courses, college officials want to recruit and retain more women and underrepresented minorities in IT programs. They are encouraged by the 13-percent growth in enrollment since 2011.
- Faculty at [Notheast Iowa Community College](#) created mechanical engineering technology program, which is seeking state approval. It meets the needs of seven industry partners and is designed fit with the anticipated blending of engineering and mechanical fields, according to college officials. During 2012, the college also strengthened its partnership with Western Illinois University's engineering technology to help graduates of the program to transfer smoothly to the university.
- [South Arkansas Community College](#) revamped its degree and certificate programs for process technicians using curriculum developed by the [ATE Center for the Advancement of Process Technology](#). The program's enrollment has grown modestly. Involving employees of national chemical and oil companies on the program's industry advisory board helped persuade the city of El Dorado to provide \$300,000 for training equipment. The process technology program also received \$250,000 from the [Arkansas Department of Workforce Services](#) for equipment and scholarships.

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