



Yielding results in cyber-security: Colleges, tech centers come together to offer certification program

by David Page
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A consortium of Oklahoma's colleges and technical centers offer classes for national certification in cyber-security and forensics education.

The Oklahoma Center for Information Assurance and Forensics Education Consortium was established with a \$3 million grant from the National Science Foundation.



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Formed in September, the consortium is already yielding results.

Rose State College started its national certification for the Cyber Security program last fall. Director Ken Dewey expected to have about eight students, but 47 enrolled. More than 50 enrolled in the program this spring.

About 100 colleges and universities across the country have at least one of the five certificates issued by the National Security Agency. Rose State has received three of the five available to higher education institutions and will apply for the final two certifications this semester.

Students have the potential to earn the certificates in 12-18 months, Dewey said. Although they may receive certificates without graduating with an associate's degree, they are encouraged to complete the entire associate's degree program.

Students with the federal certifications have the potential to earn \$10,000 more per year than those without the certifications, according to the National Security Agency.

The International Information Systems Security Certification Consortium projects the number of information security professional

worldwide will be 2.1 million in 2008, up from 1.3 million now.

Federal certification will aid students seeking government jobs, including employment with the Federal Aviation Administration, the U.S. Postal Service and with law enforcement agencies, Dewey said.

Other colleges in the consortium include Oklahoma City Community College, Oklahoma State University-Okmulgee, Tulsa Community College and the University of Tulsa.

Technology centers participating in the program include Francis Tuttle, Oklahoma City; Central Tech, Drumright, and Moore Norman, Norman. In the fall three additional technology centers will be participating - Great Plains, Lawton; Meridian, Stillwater; and Tulsa Technology Centers.

Students in Oklahoma's CareerTech information assurance and forensics programs can earn certifications established by the Committee on National Security Systems.

"Oklahoma's career and technology education system is the only career tech system in the country to be approved to offer the CNSS certifications," said Sheryl Hale, state coordinator of adult career and development for the Oklahoma Department of Career and Technology Education.

"The CNSS certifications are an integral part of the National Security Agency's National Information Assurance Education and Training Program," said Hale. "These certifications will definitely help our students get important jobs in industry and with federal agencies."

The consortium was designated as Oklahoma's first Advanced Technology Education Regional Center by the National Science Foundation. The grant money will help establish cyber-security education and work force development programs at two-year institutions in Oklahoma and neighboring states.

This is the second center for cyber-security in the country and the nation's first in the area of digital forensics, making Oklahoma a national model for cyber-security and forensics education, Hale said.

As an Advanced Technology Education Center, the consortium will establish similar programs at six additional technology centers and 14 additional community colleges during the next four years.

The consortium's schools serve nearly 60 percent of Oklahoma's population and more than 70 percent of the state's information technology work force. Cooperative agreements established between institutions were designed to provide students seamless education pathways from CareerTech centers and community colleges to four-year colleges and universities.

"Since 90 percent of the individuals trained are expected to come from the work force or enter the work force upon completion of their studies, the ATE Center will significantly impact work force

development and training in Oklahoma and neighboring states," Hale said.

Francis Tuttle and Central Tech are entering the second year as cyber-security education institutions. The primary focus at those tech centers has been on training high school and adult students for occupations to fill positions in cyber-security.

Last year Francis Tuttle launched its Enterprise Communications program, where instructor Joe Elkins taught adult students the basics about digital forensics and cyber-security issues.

"Students check computer server 'firewalls' and learn about the use of hardware such as a biometric mouse that reads fingerprints and software specializing in iris identification," Elkins said.

Moore Norman Technology Center will focus on retraining information technology specialists and workers, Hale said.

The programs not only cover the technical, operational and managerial dimensions, but the legal and ethical issues.

"Our economy and national security are dependent upon information technology and its infrastructure," Hale said. "These workers will play a critical role in implementing the national strategy to secure cyberspace as part of Oklahoman's homeland defense strategy."

Sujeet Shenoi, TU professor of computer science who heads the educational consortium, said the center will create an "Outsource Oklahoma" phenomenon, where the combination of costs and quality would encourage American companies to send IT security jobs to Oklahoma instead of countries like India.

"This designation and grant award is an incredible opportunity to grow Oklahoma's high-tech industry and to provide national leadership in work force development and training," said Kathy Taylor, Oklahoma Secretary of Commerce and Tourism.

"We will leverage the federal grant to create new high-tech work force initiatives," she said. These will include providing students with internships and professional development opportunities.

Projections by the consortium call for 31,000 individuals to attend technician training, adult re-skilling and programs for existing workers over the four-year project period. In addition, 2,700 secondary students are expected to attend occupational programs.

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