UMUC AND CYBERSECURITY

BY GREG VON LEHMEN

AMERICA HAS AN URGENT NEED for trained professionals in the field of cybersecurity—and UMUC has emerged as a pathfinder in meeting that critical need. Neither fact is surprising.

We live in a digital age; vast quantities of valuable intellectual property and sensitive data now reside on networks or in the cloud, and financial transactions are conducted over the Internet. National communications networks, our electrical grid, and rail and pipeline infrastructure are all controlled online.

While these developments have yielded great consumer and economic benefits, they have also created new kinds of vulnerabilities—and opportunities for those who seek to exploit them. The stakes have never been higher, with national security and the very competitiveness of the American economy at risk.

Compounding that risk is the fact that demand for trained cybersecurity professionals far outpaces supply. That reality served as impetus for UMUC to launch some of the first online degree and certificate programs in cybersecurity in 2010.

The role of pathfinder is not a new one for UMUC. The university is well known for being the first to offer academic programs to active-duty military servicemembers on military installations around the world. It has also distinguished itself as a pioneer in online higher education and is the largest public provider of distance education degrees in the United States.

At the same time, UMUC developed a deep portfolio of applied technology-related undergraduate and graduate degree programs. It has offered degrees in information systems and information assurance and is certified by the National Security Agency and the Department of Homeland Security as a Center of Academic Excellence for Information Assurance Education.

Cybersecurity was a logical next step in UMUC’s ongoing efforts to respond to the country’s most critical workforce needs. In the fall of 2010, the university launched master’s, bachelor’s, and certificate programs in cybersecurity and cybersecurity policy. The response was immediate and overwhelming. More than 5,200 students are currently studying cybersecurity, with another 3,300 enrolled in related programs like information assurance, computer science, and network security. To date, 232 students have graduated with degrees from the cybersecurity programs alone. And last fall, the university added another master’s program, this one emphasizing digital forensics.

The program’s success is no accident.

Greg von Lehmen is senior vice president of External Relations and Initiatives at UMUC and previously served as the university’s provost and chief academic officer. As provost, he led the university’s effort to bring UMUC’s cybersecurity programs to fruition. Among his current responsibilities, he staffs the legislative Maryland Commission on Cybersecurity Innovation and Excellence.

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dent. Members of the university’s Cybersecurity Think Tank—comprising distinguished leaders from business, government, and the military—have informed both the design and content of each program, helping to ensure that students graduate with job-ready skills. And UMUC’s commitment to addressing the human capital crisis in cybersecurity goes beyond creating degree programs.

For example, the university helps build the pipeline of skilled professionals by forming educational partnerships with business and government agencies, allowing those organizations to develop their own cyber talent. More than 80 community college alliances in Maryland and nationwide allow students who graduate with a two-year degree in a computer-related field to transition smoothly into a UMUC bachelor’s degree program in cybersecurity or a related field. And the university constantly seeks scholarship support for cybersecurity students—often from the very firms poised to hire them when they graduate.

Today, UMUC’s cybersecurity students perform impressively in cyber competitions [see the story on p. 24]. Its faculty regularly present at major conferences of the National Institute of Standards and Technology (NIST) and the Armed Forces Communications and Electronics Association (AFCEA), among others. And UMUC was asked to staff and now actively supports the Maryland legislative commission on cybersecurity. In short, cybersecurity has become an integral part of UMUC—even as UMUC has become integral to the field of cybersecurity. ✤