

## Effort seeks to diversify cyber-security field

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In an effort to increase the number of women and minorities in the field of cyber-security, Missouri University of Science and Technology is working with the University of Arkansas at Pine Bluff to develop a new program for undergraduate students.

The partnership builds on Missouri S&T's leadership role in information assurance education, says Dr. Bruce McMillin, professor of computer science at Missouri S&T.

Information assurance is a niche of computer science, engineering, and information technology that addresses ways to improve security of computer and electronic networks. In 2007, the U.S. National Security Agency (NSA) and the Department of Homeland Security designated Missouri S&T as Missouri's first [National Center of Academic Excellence in Information Assurance Education](#). The designation means Missouri S&T meets the federal government's criteria for providing educational and research opportunities in cyber-security, says McMillin, who is also the center's director.

Funded through a \$115,000 grant from the U.S. Department of Defense, the NSA's home department, McMillin and his colleagues at Missouri S&T and [UAPB](#) have developed a three-semester program for UAPB computer science undergraduates interested in the information assurance field. Students completing the coursework – known as SAIA, for Southern Arkansas Information Assurance – will be eligible for a minor in information assurance.

Working with McMillin are Dr. Jesse J. Walker, coordinator of computer science at UAPB, and Missouri S&T faculty members Dr. Daniel Tauritz, associate professor of computer science, Dr. Sahra Sedigh, assistant professor of electrical and computer engineering, and Dr. Ann Miller, the Cynthia Tang Professor of Computer Engineering. Graduates from the SAIA program interested in further study may then apply at Missouri S&T to pursue master's or Ph.D. computer science degrees with an emphasis in information assurance. They also may be eligible for graduate fellowships from the NSA, McMillin says.

Experts in cyber-security are in high demand nationwide, McMillin says.

"Nationally, the NSA and intelligence community is looking to hire a thousand Ph.D.s the next few years due to the increasing demand," McMillin says.

Minorities and women make up only 3 percent to 5 percent of the work force in this specialized field, a situation that SAIA seeks to remedy.

As the only public university in Arkansas designated as a Historically Black College and University (HBCU), UAPB provides "a conduit to get more African Americans into the information security work force," McMillin says.

By funneling more students into graduate programs (including at S&T's), SAIA will open doors to more research opportunities for women and minorities, McMillin says. The NSA fellowships are especially attractive to students interested in the field, he says.

"If you want to do research in security, the NSA is the place to be, because you have security clearance all the way to the top," McMillin says. "You'll know what the leading edge is."