
Community College Corner

**IT Security and
Data Assurance:
A New Resource for
Two-Year Colleges**

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In my last column, I identified several regional and national ATE Centers that have been established to support IT-related curricula. I'd like to continue exploring these resources, by focusing on one of the newest ATE Centers, targeting one of the most significant curriculum areas now confronting IT faculty in two-year colleges. The ACM Two-Year College Education Committee has been pleased to work in conjunction with this Center to expand awareness and identify resources related to this critical area.

Seven partner institutions representing five Midwest states have received a multiyear grant from the National Science Foundation to establish the NSF ATE Regional "Center for Systems Security and Information Assurance" (CSSIA). The seven institutions are Moraine Valley Community College (IL) (the lead institution), Inver Hills Community College (MN), Lakeland Community College (OH), Madison Area Technical College (WI), Rock Valley College (IL), University of Illinois at Springfield, and Washtenaw Community College (MI).

This Center addresses the needs for IT security professionals by increasing faculty expertise and higher education training programs in IT security and data assurance. The Center is collecting, categorizing, adapting, enhancing, standardizing, and evaluating curriculum and offering training programs to faculty and students across the Midwest. The Center has partnered with private industry and local and federal government agencies to establish an advisory committee that will influence curriculum development to meet industry needs. The Center also works with these agencies to offer valuable internships for students and externships for faculty.

The Center for Systems Security and Information Assurance has identified the following set of activities and outcomes:

- Develop and implement an Associate in Applied Science degree and certificate in IT Security and Data Assurance.

- Develop and implement an IT Security and Data Assurance concentration within the Computer Science/Bachelor of Science degree.
- Create a new 2+2 articulation model between community colleges and universities.
- Adapt NWCET skill standards for IT security and data assurance job classifications.
- Establish a state-of-the-art security training environment incorporating multivendor solutions and prepackaged lab exercises to provide instruction in IT Security and Data Assurance technologies.
- Conduct train-the-trainer summer curriculum workshops for faculty and provide externship opportunities for faculty from regional community colleges and four-year institutions.
- Establish a multilevel internship program for students in IT Security and Data Assurance A.A.S. and B.S. degree programs.
- Develop and implement a comprehensive outreach and support program to increase the number of students from underrepresented groups in IT professions.
- Create cross-departmental modules in security awareness for other disciplines (for example, health care and business).
- Produce a collection of outreach informational materials in the field of IT security.

At the CSSIA Cyber Defense Training Centers, participants have the unique opportunity to interact and network with other faculty from the Midwest (and beyond) who are planning to teach in the field of IT security. The faculty trainers have a variety of professional and academic experiences in IT security and the willingness to share ideas, curriculum and technical experiences for the development of cybersecurity industry professionals. Attendees include full-time and adjunct faculty and other academic professionals who are interested in teaching IT Security Course Development, Security+ Curriculum and Instruction, CISSP Curriculum and Instruction, Homeland Security and Critical Infrastructure Defense, Network and System Security Curriculum and Instruction, and Information Assurance and Network Defense Curriculum and Instruction. Some features of the training include free tuition (NSF supported instruction), graduate credit available from University of Illinois – Springfield, curriculum materials available for faculty to use at their home institutions, standard lab configurations to support the Information Security curriculum, detailed lab hardware specifications, and discounts on certification exams.