

NISGTC Student Success Team Moves Ahead

The National Information, Security, and Geospatial Technology Consortium (NISGTC) student success team, in only a few months, has more than 120 students signed up for the NISGTC program, a number they hope to double by the end of the semester. Team members are working with the Moraine Valley Community College Job Resource Center and Ricky Moore, program coordinator and associate professor of Information Technology, to strengthen industry relationships to increase internships and career opportunities for Moraine Valley students.

Looking ahead, the NISGTC student success team is working on a LinkedIn page to assist students with networking, and with organizing a Computer Health Day in the spring. For more information, please contact Tina Sawa at **(708) 608-4802** or sawat@morainevalley.edu.



Angela O'Donnell, Student Success Coordinator

As the student success coordinator for the Department of Labor Trade Adjustment Assistance Community College Career Training (TAACCCT) grant, I organize outreach and recruitment activities for the LAN Department, enroll students in the TAACCCT grant, and help students access the resources they need to be successful at Moraine Valley and in their future careers. I came to Moraine Valley after several years with the Workforce Investment Act, another Department of Labor grant-funded program that focused on providing educational training opportunities, and experience at community colleges and universities. I have a bachelor's degree in social work from Illinois State University, a Master of Arts degree in political science, and a Master of Education in educational leadership, both from the University of Florida.



Rachel Glaz, Student Success Specialist

Education and student success have always been very important to me. I have worked in higher education for the past five years in Admissions and Student Services at DeVry University, Lewis University and Creighton University. I hold a bachelor's degree in business management from Robert Morris College, and I plan to pursue a master's degree in higher education administration.

As a student success specialist, my primary roles in the program are to help provide comprehensive student services to grant participants, and coordinate recruitment, retention, completion, and placement efforts for participants. We will work with various departments of the college to provide seamless and integrated educational services to grant participants. As a member of the student success team, I am dedicated to helping facilitate activities that promote student success and lifelong learning in accordance with established Moraine Valley policies and procedures. Assisting students fulfill their educational and career goal has always been my passion.



Jessica Tello, Student Success Specialist

I have been working in higher education for the past seven years as enrollment coordinator and in student services for the Chicago School of Professional Psychology and for Benedictine University, and teaching with Joliet School District 86. I hold a Bachelor of Arts degree in interactive multimedia from Columbia College Chicago.

My goal as a student success specialist at Moraine Valley is to help students finish their education and career goal through my recruitment, retention, completion, and placement efforts for participants. I will be working on initiatives to help students with their education. I am a participant in the Women in Technology Program.



Tina Sawa, Departmental Assistant

I have the pleasure of working as the departmental assistant of the newly formed National Information, Security and Geospatial Consortium (NISGTC), under the Department of Labor grant. My main focus is to collect and keep track of grant information. I take the meeting minutes and help keep the team on track and moving forward to meet all grant requirements. I look forward to seeing our students take advantage of all of the technical advances that the DOL is able to bring.

I have worked at Moraine Valley Community College for a number of years and have held several positions around campus. I have my Associate in Science degree from Joliet Junior College, and I came back to Moraine Valley to update my skills. I earned the Administrative Assistant certificate and the Microsoft Office Specialist certificate, as well as Data Entry. I started my career at Moraine Valley as a student aide and as an intern for the school. In that position, I had the honor of being selected as the Intern of the Year.



Faculty Highlight Kevin Vaccaro

My background started in electronics when I attended DeVry University in the early '90s and received a degree as an electronic technician. At that time, I began my first job as a computer and printer repair technician. I worked 24 years in IT at various levels of management and also received a master's degree in information technology and management with a specialization in computer security. I had previously taught at Moraine Valley as an adjunct faculty member in the late '90s until the mid-2000s teaching CompTIA A+, Network+, Linux+. Later, I became an adjunct faculty member at Illinois Institute of Technology teaching computer networking, security, forensics, and ethical hacking. Currently, I am teaching cybersecurity at Moraine Valley. My position is exciting, as I am developing curriculum based on the current state of computer security and the associated parts. I want to bring the students as close as possible to real world scenarios so they will be better prepared to enter the field.



Grants Help Technology Move Forward

The newly installed facility enclosing the Virtualization Data Center at the Building T main entrance stands out with its ultraviolet yellow 360-degree glass walls. It's part of the Center for Systems Security and Information Assurance (CSSIA) resource facility on campus, and the Department of Labor National Information, Security, and Geospatial Technology Consortium (NISGTC) and National Science Foundation (NSF).

The remodeling included relocating the CSSIA and NISGTC offices, and constructing the new data center toward the main entrance. Two new technology faculty members, Kevin Vaccaro and Justin Valentino, joined the team, as well. With two new high-tech classrooms for students, there also are plans for job fairs, expanded tutoring, industry forums, and more, to get students further engaged in cybersecurity, said Erich Spengler, director and principal investigator of CSSIA and NISGTC and a Moraine Valley professor of Computer Integrated Technologies. "We're helping build data centers at seven other community colleges around the country. This all helps student learning and student success at a local and national level," Spengler said. "We can uniquely serve students. The big picture is how both the CSSIA and NISGTC grants are working together to help students here and nationally."

Current and new staff members are initiating plans for expenditures using the new \$3.7 million grant for cybersecurity, programming, geospatial, and networking programs of study and the deployment of hi-tech virtualization lab environments. Moraine Valley Community College is part of the approximate \$20 million grant for job training and workforce development in the Information Technology industry. NISGTC is a national syndicate of seven community colleges (and 19 affiliated colleges) composed of National Science Foundation Advanced Technological Education Centers.

Since 2003, Moraine Valley has been the lead institution for CSSIA as a regional center for five states with a focus on curriculum development, outreach, and faculty development and mentoring. It expanded into a national resource center with a focus on high school and college cybersecurity skills competitions, academic mentoring for faculty and students for cybersecurity competitions and faculty development. The CSSIA Virtualization Data Center, powered by NDG NETLAB+, VMware and Dell, is a one-of-a-kind cyber lab supporting up to 640 virtual servers that students can remotely log into for cyber competitions and course skills learning.

The National Science Foundation visited Moraine Valley to shoot a brief video highlighting the CSSIA center. NSF is creating a series of videos for its website on science themes from robotics to health to computer technology that will be available to the media. The video crew interviewed students and Spengler, toured the center, followed an interactive class with John Sands, professor of Information Technology and CSSIA co-principal investigator, and interviewed a Moraine Valley alum who now works at Dell SecureWorks. The video shows the latest research underway at the center, advances that have been made to deliver cybersecurity education, and how CSSIA is supporting technician employment. The videos will be available for viewing on the NSF website in the spring of 2013.

Cybersecurity continues to evolve, and there is a need for cybersecurity experts. Instructor John Sands is trying to engage students by posting QR codes leading them to various resources and technology-based information, Spengler said. The new setup of CSSIA and NISGTC facilities, classrooms and the virtualization data center also help to attract new students.

"That ultraviolet 360-degree room now makes us a landmark on campus. We're trying to make a nice visual effect down here so students say, 'What's this all about?' We want to show them they can have a career and make a good life. We want students to hear us out and show them there are opportunities—hence, all of the colors, QR codes, lighting—to make this an exciting place to be in technology," Spengler said.



Student Spotlight

John Hanson

Network Security Analyst, Dell SecureWorks

I became interested in the field of technology when I was a young boy. My father had built our first computer and I was fascinated as to how it worked. From that point forward, I was hooked on all things computers and technology. I started as a young boy taking things apart and, of course, not knowing how to put them back together. I started formal education in the world to technology and IT when I was in high school. I was fortunate enough to go to a high school that had elective classes such as web design and computer maintenance. From there, I urged the teachers to expound on those topics and the school ended up creating self-study classes based upon the web design class. After high school, I was undecided as to what school to choose for my post-secondary education. I decided to go to Moraine Valley so I could get a feel for the college environment and get my general education classes out of the way. Little did I know I would end up finding my career there. I initially looked through the course guide and noticed that the school offered some general IT classes. I decided those classes would be great to fill out my schedule. From that first class I was hooked. I breezed through the rest of the program and ended up deciding to train in security. I earned my A+, Network+, and Security+ certifications from CompTIA. I also have recently earned my GSEC, which is a SANS offered Security Essentials certification.

As the network security analyst at Dell SecureWorks, I analyze events coming from our proprietary IDS/IPS devices, as well as firewalls and other network appliances. I decide the severity of the events and issue a ticket for the client to see so that they have documentation as to what we have seen happen. I was recruited by Dell SecureWorks at a local Collegiate Cyber Defense Competition event that pits students against a group of hackers. The students are then given tasks they must complete while still defending their network from the hackers. The year that I competed, Moraine Valley finished third and I ended up falling in love with these styles of competitions. I now help run the competitions and build out the environments that the students have to protect. I also help to judge the local competitions and often give lectures to the local cybersecurity team at Moraine Valley.



Student Spotlight

Robbie Polson

Enrolled in the LAN Program at Moraine Valley

I am an IT major midway through my second year of the LAN curriculum at Moraine Valley. Computers have always been a large part of my life and as I started trying to figure out what I wanted to do with my life, the involvement of computers seemed almost required. Initially I didn't even consider a career in networking and security; however after talking with some professors in the department, I decided to give it a closer look. After my first semester I already knew that this path would be a good fit for me. Since then, I have finished the A+, NET+, and CCNA curriculums. Currently I am enrolled in security based courses and I am looking to enroll in server management classes, as well. Along with these courses, I am a tutor at Moraine Valley for the CCNA, A+, and Net+ courses. I'm hoping that with the courses I am taking, along with some industry experience, I will be able to one day get a job as a network administrator.



Moraine Valley Looks to Add to Technologies Programs

The Computer-Integrated Technologies Department at Moraine Valley Community College is pursuing adding another cutting-edge program to its already high-tech lineup. A Geographic Information Systems program is being created as part of a \$3.7 million Department of Labor Technology Grant focusing on developing high-technology professionals in such high-demand fields as National Information, Security, and Geospatial Technology.

Pending anticipated state approvals, in fall 2013 Moraine Valley will welcome two new degree programs and two new stackable certificate programs in Geographic Information Systems. The program has also been designed to take advantage of dual-credit options at local area high schools, thus enabling students to complete some of the coursework before graduating from high school.

Geographic Information Systems (GIS) integrate computer software and hardware to collect, organize, analyze, and display geographically referenced data. Geospatial technologies extend into many different fields and is prevalent in both local and federal government agencies, nationally and abroad. The application of GIS can be found in areas as diverse as disease control, economics, marketing, politics, environmental study, utility management, and crime control/prevention.

The increasing demand for Geographic Information Systems technicians in the workforce has lead the Computer Integrated Technologies Department to propose a new curriculum geared towards educating and developing individuals for employment in the geospatial workforce. The Bureau of Labor Statistics predicts that the field of GIS, including related disciplines, will grow between 16 and 35 percent from 2010 to 2020, depending on the specific job title and area of employment. Many of these areas are expected to experience growth much faster than the average for all occupations.

At the program's advisory meeting in spring 2012, companies and individuals working within the field of GIS expressed a need to design and implement a comprehensive curriculum in Geographic Information Systems. Several advisors cited the rapid growth in the application of geospatial technology throughout the workplace as a primary justification. There is growing need for the GIS technicians to collect, implement and deploy geospatial technologies through many industries, including energy (natural gas and electrical), health care, civil engineering, logistics, manufacturing, construction, law enforcement, firefighting, and many others.

Implementing a program that focuses on Geographic Information Systems will allow the CIT department to keep up with current trends and expectations of future employers. With increasing interest in Geographic Information System applications, it is important we provide an opportunity to educate our students and community members on the growing applications of this critical technology. In addition, the changes in the development of GIS are forcing individuals already in the field to seek retraining.

The degrees and stackable certificates Moraine Valley hopes to offer upon state approval include:

GIS Associate in Science Degree – intended for students wishing to continue towards a Bachelor's degree in Geographic Information Systems.

GIS Associate in Applied Science Degree – intended for students wanting to enter the workforce with a comprehensive set of skills and knowledge in the Geospatial Technology field.

GIS Technician Certificate – entry-level certificate intended to allow students to quickly get knowledge and experience in basic geospatial technology. May be completed in as little as one semester.

GIS Specialist Certificate – upper-level certificate building from the GIS Technician Certificate intended to provide students a quick and efficient path in the geospatial technology career field. Both certificates may be completed in as little as two semesters.

A Solid Path from Industry-Recognizable Certificates to the Associate's Degree

Coursework prepares students to take CompTIA's A+ exam by completing Computer Support Associate.

Course work prepares students to take the Network+ exam by completing the Computer Technician certificates.

Computer Support Associate

(LAN-101, 111 & 112; total: **7 CR HRS**)

Computer Technician

(above + LAN-121 & 122; total: **14 CR HRS**)

Course work prepares students to take either Cisco's CCNA or CompTIA's Security+ exams.

Cisco Network Associate

(above + LAN-246, 256 & 266; total: **23 CR HRS**)

Network Security Associate

(above + LAN-103, 153 & 163; total: **21 CR HRS**)

Depending on course work, students may take exams for Cisco's CCNP, VMware's VCP5, and/or Microsoft's Certified IT Professional, as well as complete an A.A.S. degree.

Computer & LAN Technician

(above + **40 CR HRS**)

IT Security Specialist

(above + **42 CR HRS**)



What is TAACCCT and NISGTC?

The Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant provides funds for community colleges to expand and improve curricula to create programs that can be completed in two years or less, and prepare students for employment in high-wage, high-skill occupations. Although the grant targets workers who have lost their jobs or are threatened with job loss as a result of foreign trade, the programs and resources made available by the grant are open to all students.

The National Information, Security, and Geospatial Technologies Consortium (NISGTC) represents a group of seven colleges from around the country, jointly awarded the TAACCCT Grant for their dedication to improving information technology training and to helping students transition to the workforce. The seven colleges involved in this effort include Collin College in McKinney, Texas, Bellevue College in Bellevue, Wash., Bunker Hill Community College in Boston, Mass., Del Mar College in Corpus Christi, Texas, Rio Salado in Tempe, Ariz., Salt Lake Community College in Salt Lake City, Utah, and Moraine Valley Community College in Palos Hills, Ill.

At Moraine Valley, the grant funds are used to create the stackable certificates curriculum, purchase upgraded technology, hire members of the Student Success Team, assist students with academic planning, aid in career coaching, and purchase Measure Up software to provide students with certification exam preparation. Future plans are to offer workshops for certification exam preparation, provide job readiness training through resume writing and interviewing skills workshops, and establish connections with IT companies to help students access internship and employment opportunities. For more information, visit nisgtc.org.

Stackable Certificates offers the Best Opportunity to get into the Workforce FAST!

Moraine Valley's NISGTC Leadership team recently realigned the curriculum into stackable certificates allowing students to earn Moraine Valley credentials and reflecting short-term training, all while building toward an associate's degree in either Computer and Local Area Network Technician or IT Security Specialist. Stackable certificates can help students break into entry level IT positions earlier, giving them the opportunity to gain valuable field experience, while keeping them on track toward their associate's degree. Together, these stackable certificates are joined with general education courses to provide an Associate in Applied Science degree.

NISGTC Leadership Team

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