



MAKING THE Connection

TO
Career Technical Education

Thursday, January 26, 2017

It takes a city to bring careers to life for students

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While it's true that Macomb's Career Services hosted its largest job fair yet last year, it does much more than find jobs for students. It helps them find the one that is truest to their passion.

On the first Friday of just about every month during this school year, a bus will be chartered and enough students to fill it will be recruited based on majors and interests. The destination may be Detroit or Southfield, Utica or Mount Clemens, or any city in southeastern Michigan where successes can be observed in a student's career of choice. Everything is free and that includes lunch.

"We are calling them first Friday field trips," says Brooklyn Frontiera, Career Services coordinator. "While we have done business tours for students before, we discovered offering them on a Friday has provided more students with the opportunity to attend."

This year, manufacturing and product development students will visit Shinola in Detroit to see what "made in America" looks like, hospitality management and business students will discover why the grilled dog is king at Jimmy Johns Field, and paralegal students will have the chance to ask attorneys and judges the questions at Macomb County Circuit Court. Last but not least, Media and Communication



Macomb Media and Communication Arts students visited Skidmore creative studio in Detroit on a Career Services-sponsored art and design field trip last November. Similar field trips exploring a variety of careers are planned for this year.

Arts (MACA) majors will, again, be introduced to the creative verve that has made Detroit the first UNESCO City of Design.

"People guided us through Detroit, they showed us its

history, old houses, big mural-painted buildings, and schools where creative students can develop their style," says Diego Fabres, a Macomb MACA student who participated in last

year's Art and Design Tour. "We talked with interesting people who shared their ideas, doubts about what they were working on and all that we as students can do. Then we had an incredi-

ble lunch at a stylish restaurant. It was awesome."

While first Friday field trips are relatively new, the job fair is a longstanding tradition. Held in collaboration with the City

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of Warren for the past few years, the 2016 fair was a record breaker, with more than 1,400 job candidates and nearly 250 employers. Within a month after the fair, more than 20 percent of those employers reported hiring at least one of the candidates they had met.

The next job fair will be held on Wednesday, April 19, 4 to 7 p.m., at the Sports and Expo Center on Macomb's South Campus. Before that, however, Macomb's Career Services will celebrate Career and Technical Education Month® in February with an internship information session on Feb. 7.

"With the info session, we hope to encourage students to consider internships in technical careers," says Frontiera. "Internships are another great way for students to make sure a career is right for them."

Cybersecurity attracts those with varied backgrounds

Don DeVolder has experience in military security, is interning with the U.S. Department of Defense and has already earned two network security certifications.

"With my background, I knew cybersecurity was the way to go, but I wasn't sure what school to attend," says DeVolder, a U.S. Army veteran. Then I found out Macomb was a highly rated, veteran-friendly college that offered a perfect transfer agreement with Eastern Michigan University's Information Assurance Program. After one semester in professor Nabozny's Network Security Program, I was hooked and hungry for more."

Cybersecurity expertise is highly valued in this, the digital era, where a hacker, computer virus or other cyberattack can cause devastating domino effects throughout any type of organization. Macomb's Information Technology - Networking Specialist Program (cybersecurity) can build upon programming skills an individual like DeVolder already has or provide a strong foundation to those who bring only a respect for computers to the

game. That's what appealed to Tim Cooper, a student in the program, who intends to pursue a Bachelor's Degree in Information Technology (IT) at Walsh College, a National Security Agency/Department of Homeland Security-designated Center of Academic Excellence.

"I have always had a way with computers and love to work with them," says Cooper. "Macomb has labs set up like you would find in the field. And with the hands-on training provided by the professors, I feel that the program is preparing me for a career in network security."

That preparation involves both general IT classes and those specific to cybersecurity, including Certified Ethical Hacker, Scripting for Security Professionals, Information Security Policies and Risk Management, and Penetration Testing and Analysis.

"The program's greatest strength is its instructors and their passion to see their students succeed," says DeVolder. "Professor Nabozny, the program head, is always willing to help his students and adds not just classroom experience, but industry knowledge as well."

A how-to for sparking interest in STEM

The Center for Advanced Automotive Technology (CAAT) at Macomb Community College has been revving up its efforts to introduce Macomb County youth to Science, Technology, Engineering and Math (STEM), earning it kudos from the state and gratitude from students who never realized how exciting careers in those fields could be.

Last February, CAAT invited more than 100 Cub Scouts and Boy Scouts to STEM Adventures so they could explore a variety of technologies, including those that involve electric vehicles. The Scouts built rubber band racers and wind-powered vehicles, while learning how technology affects their everyday lives. The event also helped many of the attendees earn their NOVA patch or pi pin, a Boy Scout of America awards program that promotes an understanding of the four components of STEM.

CAAT, which is funded by the National Science Foundation and works in collaboration with Wayne State University, is also promoting STEM through its new Career Exploration Lab. The free, three-hour interactive lab is for students in the fifth through ninth grades, with one parent per student encouraged to attend as well. In these labs, students design,



A virtual welding lab was one of many interactive learning experiences at Auto STEAM Days held in October at Macomb's Sports & Expo Center and cosponsored by the Center for Advanced Automotive Technology.

build and test their way through a variety of engineering projects, learning more about STEM-related careers in the process. CAAT has also been taking its expertise on the road with the STEM Lab program for middle school students. Last year, the STEM Lab visited 156 classrooms in 19 schools and engaged more than 4,000 students in hands-on, learning activities.

"The STEM Lab program in the middle schools has been successful beyond our wildest dreams," says Bob Feldmaier, CAAT director. "We did some initial marketing, but then the program took off solely by word of mouth, from teacher to teacher and principal to principal."

Then in October, CAAT cosponsored Auto STEAM (Science, Technology, Engineering, Art, Math and Manufacturing) Days, combining two previous and successful events - Robotics Engineering and Technology (RET) Days and the Automotive Design and Engineering Expo - into a megawatt two-day career exploration for students in the sixth through twelfth grades.

Coordinated as field trips by participating schools and in collaboration with the Macomb Intermediate School District, students arrived at Macomb's Sports & Expo Center to find robots to race, electric vehicles to tinker with, clay models to sculpt and concept ve-

hicles from General Motors, Ford and Fiat Chrysler to "test drive." Students were invited to return with their parents for an evening event to explore careers in manufacturing and technology together. More than 2,300 students attended the daytime event and about 400 students and their parents attended the evening event. Plans are to hold Auto STEAM Days again next year.

"Our STEM program was named one of the top 10 best practices in Michigan at the Governor's Education and Economic Summit," offers Feldmaier. "But the best reward is when we see a student excited about the future because of something they discovered at one of our STEM events."

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For more information about the MISD and the 21 school districts, go to www.misd.net

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