



SWITZERLAND COUNTY
economic development corporation

SCHS Students Explore Advanced Manufacturing Career Opportunities at Vincennes University's Indiana Center for Applied Technology

For Immediate Release

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The importance of a strong manufacturing workforce in the United States was the focus of Switzerland County day at Vincennes University last Thursday (April 19, 2012).

Over 20 Switzerland County High School students made the 360-mile roundtrip from Vevay to Vincennes to gain hands-on experience with advanced welding technologies, robotics, and computer numerical controlled (CNC) machinery.

The day's activities were organized for students in the Project Lead the Way and Advanced Manufacturing classes at Switzerland County High School, taught by James Hess and Barry Smith. Darwyn Nelson, a member of the Vincennes University Business and Industry faculty, coordinated the events on behalf of the university. Nelson helped Switzerland County High School develop an Advanced Manufacturing Curriculum at the high school in partnership with the EcO15 initiative in 2009, and continues to team-teach the Advanced Manufacturing course both in person and through live video conferencing between the high school and Vincennes.

The trip and the evening meal in Bedford, Indiana on the return home were funded by the Switzerland County EcO15 and Dream It Do It programs. Both initiatives are led here in Switzerland County by the Switzerland County Economic Development Corporation as part of the SCEDC's Workforce Development Strategy.

The day began after the nearly four-hour bus trip to Vincennes with a tour of the Advance Welding Lab led by Mike Hastings, Vincennes University's Welding Program coordinator. The comprehensive two-year A.S. or A.A.S. program prepares students for a career in the advanced welding profession. In addition to the Associate's Degrees offered, the Vincennes program concentrates on preparing students for American Welding Society Certification. Students in the program receive skill-based training in OAW (Oxygen Acetylene Welding), SMAW (Shielded Metal Arc Welding), GMAW (Gas Metal Arc Welding), and GTAW (Gas Tungsten Arc Welding). Skills are also learned in plasma arc cutting, oxyacetylene cutting, air carbon arc gouging, and print reading. Safety issues involved in welding occupations are also thoroughly taught.

Vincennes University Vice President David Tucker provided lunch for the students at the Indiana Center for Applied Technology, where students then had the afternoon to gain hands-on experience with over \$1 million in training equipment.

The ABB Robotics Lab activities were conducted by Alan Gray, a Computer Integrated Manufacturing faculty member at Vincennes. Students were shown how to operate the robotic arms before giving each student a control pad and choosing a task for the robot to perform. Students were able to instruct the robotic arm to pick up a pen and draw a specified picture and (although not encouraged by the faculty) to retrieve a cell phone and throw it to another student.

Following a tour around the VU campus, the students returned to the ICAT building for a demonstration of the CNC equipment in the Haas Technical Education Center (HTEC). Vincennes faculty member Doug Bowman explained the concepts of computer numerical controlled machinery. Instead of using a variety of tools by hand to manufacture a part, automated machines complete the task by following a series of complex steps that are specified by a computer program. The Vincennes University HTEC CNC courses combine the major CNC elements: programming, machine interface, operation set-up. The HTEC is a nationally-recognized state-of-the-art facility that is used by Vincennes on-campus students and by employees of manufacturing companies that come to Vincennes specifically for CNC training.

The goal of the day shared by Vincennes, SCHS, and the SCEDC's Dream It Do It program was to expose students to the types of equipment and technology used in high-paying advanced manufacturing jobs. In southeast Indiana, available jobs in advanced manufacturing are expected to increase in the next decade as the baby boom generation retires from the workforce. But the fear of many manufacturers is that there will not be enough people with the necessary training and skills to fill those jobs. The Dream It Do It campaign was created by the National Association of Manufacturers after 80% of employers nationally reported a moderate-to-serious shortage of skilled manufacturing workers. Dream It Do It helps create awareness of the skills needed and benefits of advanced manufacturing careers among high school students.

The Advanced Manufacturing program at Switzerland County High School was created in 2008 with the support of the EcO15 project. Over \$100,000 was invested in equipment and teacher training by EcO15, the Switzerland County School Corporation, and the Switzerland County School Endowment.

Mike Busch, the Switzerland County Economic Development Corporation's workforce development coordinator, spent part of the Switzerland County Day at Vincennes in meetings with university officials about continuing the relationship between Vincennes and Switzerland County. With the completion of the community's adult education center in a few months, expanding Vincennes' presence to provide educational opportunities for all residents is a goal of the SCEDC. An announcement for an on-going relationship in Switzerland County with Vincennes is expected within the next month.