



## **Advanced Manufacturing Curriculum at Fairmont High School Generates Community Support for Workforce Development**

*Fairmont High School, Kettering, Ohio, has been selected an exemplary school by the SME Education Foundation, one of six schools in six states where partnerships are fueling a comprehensive community-based approach to manufacturing education.*

**DEARBORN, Mich., Kettering, Ohio, November 8, 2011** — The [SME Education Foundation](#) is taking a community-based approach to workforce development by creating strong partnerships between exemplary schools, businesses and organizations. [Kettering Fairmont High School](#), Kettering, Ohio, has been named an exemplary model school by the SME Education Foundation, one of six selected nationally for the first phase of their Partnership Response in Manufacturing Education ([PRIME](#)) program launched in the fall of 2011.

Other PRIME exemplary schools include: Wheeling High School, Wheeling, Ill.; Walker Career Center, Indianapolis, Ind.; Summit Technology Academy, Kansas City, Mo.; Hawthorne High School, Los Angeles, Calif., and Francis Tuttle Technology Center, Oklahoma City, Okla.

“We are providing a venue for schools, businesses, and industry organizations to collaborate and influence workforce development for advanced manufacturing education in their own community,” says Bart A. Aslin, chief executive officer, SME Education Foundation. “There are abundant job opportunities if you have the required technical skills.”

Fairmont High School has been grant-funded \$26,000 by the SME Education Foundation which includes: \$10,000 to update equipment, software, and/or professional development; \$1,000 to support their involvement in technology-based competitions tied to organizations such as Skills USA and/or FIRST Robotics; \$5,000 toward the introduction of a Gateway Academy, technology-based summer day camp, and \$10,000 to support scholarships for students with provided connections.

PRIME builds on the SME Education Foundation’s \$5.2 million investment in STEM-based education. This major effort targets three critical issues: transforming manufacturing education, changing public perception of manufacturing, and addressing the shortage of manufacturing and technical talent in the United States.

Fairmont High School was selected based on their offering students Project Lead The Way ([PLTW](#)) technology-based engineering courses of study; which includes Computer Integrated Manufacturing (CIM); skilled and dedicated instructors, engaged and active students, strong corporate and administrative support from the manufacturing community, including members of the Society of Manufacturing Engineers (SME) and the involvement of SME Dayton [Chapter #18](#).

Mike Monnier, chapter chair, SME Dayton Chapter #18 and Field Service Supervisor, BarSplice Products, Inc., Dayton, Ohio, says, "We are excited about the accomplishments of these students and will be providing opportunities for introductions, tours and mentoring by chapter members and companies. They represent the future of manufacturing and we want to be a part of securing it."

Course offerings at Fairmont High School have a superior representation of all STEM subjects from college prep to Advanced Placement (AP) and International Baccalaureate (IB). In addition, Fairmont has technology and engineering classes that fit into the cross disciplinary nature of STEM. The school supports over 800 computers and has Smart Boards and media projectors in over 100 classrooms. Fifty percent of the teachers have laptops and about twenty-five percent use student response systems as an integral part of student assessment.

There are 14 computer labs, a TV studio and a student-run radio station. Students with different learning needs have extensive use of online learning resources. In the PLTW Engineering Program, students use a state-of-the-art computer lab with industry software including but not limited to: Inventor, Pro E, EdgeCAM, Revit, and Microsoft Office. Students also use a 3-D printer for rapid prototyping, CNC lathes and mill, hand crank lathe and mills, a robotic work station and more.

Local manufacturers have provided mentoring, tours and job shadowing opportunities. Triangle Precision mentors the Bots team, allowing students to job shadow and hires graduates of the program; Millat Industries allows students to job shadow and has provided employment to program graduates. Wright Patterson Air Force Base has provided mentors for the Real World Design Challenge, allowing students to job shadow and has offered summer employment.

Dave Lord, a Project Lead The Way (PLTW) instructor who teaches Manufacturing and Aerospace Engineering tracks, including Computer Integrated Manufacturing (CIM), says, "The teaching experience at Fairmont has been rewarding. Students are involved and excited about the program and have won many awards in tech-based competitions. We have the support of local industry and our CTE director, Nancy Brown is working hard with the Kettering Moraine Oakwood Chamber of Commerce to promote a new job shadowing program being launched in December."

As an exemplary school, the new partnership team will support Fairmont High School's new Career Tech Job Mentoring program for tours of local businesses, and job shadowing. Students and their instructors will be provided with access to a new website, [www.CareerMe.org](http://www.CareerMe.org), funded by the SME Education Foundation. The site provides links to advanced manufacturing companies for access to real world professionals, their job descriptions and skill requirements.

Sophomores are required to job shadow a professional in their career interest. Kettering local companies have already provided engineering students job shadowing and include: Millat Industries, Triangle Precision, Dayton Reliable Tool, LJB, and MotoMan.

Reaching young people at an early age is critical to workforce development and strong communities. In the summer of 2012, a Gateway Academy summer day camp for middle school students, boys and girls will be offered. Students will learn drafting and graphic design allowing them to use real lab equipment in a team environment. In 2010, nearly 4,200 students attended Gateway Academy camps in 34 states with funding provided by the SME Education Foundation.

**About Community Partnerships:**

Fairmont High School community partnerships include: D & G Medical; Dayton Reliable Tool, Millat Industries, Kettering Chamber of Commerce, LJB, MotoMan, Sinclair Community College, Society of Manufacturing Engineers ([SME](#)) [Dayton Chapter #18](#) and Triangle Precision.

**About Kettering Fairmont High School:**

Kettering [Fairmont High School](#), Kettering, Ohio, is a public, culturally diverse, four-year comprehensive high school with a STEM (Science, Technology, Engineering and Math) based education serving 2,300 students whose ACT scores are well above the national average with a graduation rate of 98 percent. A majority of students move on to higher education or specialized training. Kettering is an industrial first-ring suburb of Dayton, Ohio that has a local manufacturing base and is in close proximity to Wright-Patterson Air Force Base. The curriculum offered at Fairmont High School supports these industries with award-winning, Project Lead The Way manufacturing curriculum. In 2010, the Kettering District and Fairmont High School were rated "Excellent" by the Ohio Department of Education (ODE).

**About the SME Education Foundation:**

The SME Education Foundation is committed to inspiring, supporting and preparing the next generation of manufacturing engineers and technologists in the advancement of manufacturing education. Created by the Society of Manufacturing Engineers in 1979, the SME Education Foundation has provided more than \$31 million since 1980 in grants, scholarships and awards through its partnerships with corporations, organizations, foundations, and individual donors. Visit the SME Education Foundation at [www.smeef.org](http://www.smeef.org). Also visit our award-winning website for young people at [www.ManufacturingisCool.com](http://www.ManufacturingisCool.com), and [www.CareerMe.org](http://www.CareerMe.org) for information on advanced manufacturing careers.

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