

SPOTLIGHT ON

BUSINESS SUPPORT FOR COLLEGE AND CAREER READINESS IN THE CAPITAL REGION

In February 2014, local businessman Ted Thien of **Tyler Technologies** volunteered as a guest speaker at a meeting of Bethlehem Central School District's Parents for Excellence group. The meeting, entitled "**Embracing a Higher Standard,**" brought together district parents to discuss the need for higher academic standards and to come up with strategies parents can use to support the success of the Common Core in their district. Thien spoke about the skills gap in computer science, then compared the job descriptions of several of the openings in his own corporation with the skills covered in the Common Core standards.



Advanced manufacturing companies in the region are seeking qualified employees who are fluid with technology, adaptable to change, and able to think on their feet. That is why **GLOBALFOUNDRIES, Irving Tissue, Espey Manufacturing Company, Momentive Performance Materials, Great Escape/Six Flags, and Philips Healthcare** have partnered with SUNY Adirondack and the Washington Saratoga Warren Hamilton Essex (WSWHE) BOCES for the **Early College High School: Advanced Manufacturing program**. Participating students learn science, technology, engineering, and math (STEM) fundamentals in a high-tech, collaborative environment, with time devoted to hands-on learning using state-of-the-art advanced manufacturing equipment. They go on site visits to companies, hear from guest speakers, and complete a job shadowing experience and a senior internship. They can earn college credit and gain valuable internship experience with the program's business partners.

To track the program's outcomes and ensure continuous improvement, WSWHE BOCES is working with its business partners to define the businesses' workforce development concerns, develop deliverables, and create measurable goals. So far, business partners agree that these students are succeeding in getting prepared for college and career. "It makes my job easier," said Peg Murphy of **Espey Manufacturing Company** in Saratoga Springs. "I'd hire these kids in a heartbeat."



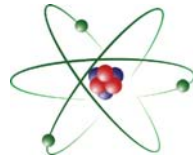
The **Capital Region Career & Technical School**, with campuses in Schoharie and Albany, offers more than 30 career and technical education (CTE) programs to high school and adult students in Albany, Schenectady, Schoharie, and southern Saratoga counties. All of the CTE courses are aligned with the Common Core standards and prepare students to be college and career ready. Students can earn early college credits or articulated college credits through the school's college and university partnerships. Students complete regular work-based learning experiences consisting of internships, job shadows, and CO-OP's. Business partners include but are not limited to **Ellis Hospital, St. Peter's Health Partners, Times Union, Greno Industries, Albany Marriott, Mallozzi Group, Colonie Center, Crossgates Mall, Lia Toyota, Metro Ford, Fuccillo Auto Group, Watervliet Arsenal, Albany County Nursing Home, IBEW, Empire State Carpenters, Golub Corporation, CDTA, Lancaster Development, Memory Gardens, Sports Zone, Peter Harris, Jiffy Lube, H & M Auto Body, and Mechanicville Hydro.**



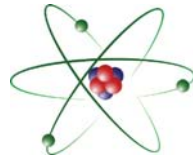
In 1997, Cisco established the **Cisco Networking Academy Program**. The program teaches students networking and other information technology-related skills, preparing them for jobs and for higher education in engineering, computer science, and related fields. Since its launch, more than 60,000 students have participated in Academies operating in colleges and universities, technical schools, community-based organizations, and other educational programs around New York State. There are currently more than 100 Academies in New York, including 18 sites throughout the Capital Region.



Ballston Spa Central School District's **Clean Technologies and Sustainable Industries Early College High School P-TECH** program prepares students for college and careers in the fields of energy efficiency, renewable energy, and advanced technology including semiconductor manufacturing. With support from regional economic leaders including the Center for Economic Growth, Saratoga Economic Development Corporation, and local Chambers of Commerce, the program connects with hundreds of businesses throughout the region, including **Infrastructure, Cisco, GLOBALFOUNDRIES, TRC, Magnolia Solar, Stewart's Shops, Gilbane Building Company, M+W Group, CSArch, C.T. Male Associates, Millennium Business Communications, and CapCom Federal Credit Union.**



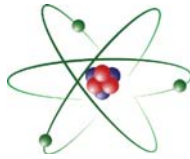
The **Tech Valley High School Business Alliance**, a group of 33 regional business leaders, supports and advises Tech Valley High School staff and students to ensure that students understand the real world application of the curriculum they are studying. Alliance members assist the school in many ways, such as hosting students for field work, identifying partners for class projects, and providing examples of how workplace practices can be utilized in the classroom. The Alliance is currently chaired by Amy Johnson from **Capstone, Inc.** and Kelsey Kohler of **Momentive Performance Materials**. Members represent business from throughout the region in sectors such as manufacturing, not-for-profit, architecture/engineering, banking, information technology, and utilities.



Since 2010, Capital Region BOCES has offered the **SEMI High Tech U Summer Camp** experience for 9th-11th graders in the Capital Region. The program introduces students to the high-tech sector and the microelectronics/semiconductor industry, with the goal of preparing them for post-secondary academics. SEMI High Tech is made possible because of the involvement and commitment of regional business and industry partners, including **Applied Materials, Evident Technologies, GLOBALFOUNDRIES, National Grid, and Tokyo Electron**.



In 2014, Capital Region BOCES in cooperation with Questar BOCES will begin a new **Senior STEM Program**. The program will be based at the newly merged SUNY College of Nanoscale Science and Engineering (CNSE) / SUNY Institute of Technology (SUNYIT) in Albany, an institution that attracts scientists and engineers from companies including **IBM, Intel, GLOBALFOUNDRIES, SEMATECH, Samsung, TSMC, Toshiba, Applied Materials, Tokyo Electron, ASML, and Lam Research**. This full-year academic program will provide high school seniors with a unique hands-on, project-based, early college experience exploring career options in advanced manufacturing and research settings. The goal is for each student to be exposed to a variety of careers in emerging technologies and be encouraged to pursue careers in these fields after high school.



“Career and Technical Education (CTE) has always been driven by real-world, hands-on experiences. CTE educators have always known how to teach the application of content and knowledge, as well as how to embed authentic performance-based tasks into their daily curriculum. The new Common Core shifts such as reading more non-fiction and, in math, really knowing the material and then being able to actually do it—these are the foundations of CTE. For years, CTE has been exposing students to multiple career pathways and teaching them the skills needed to obtain real-world jobs. Collaboration among CTE and academic teachers can contribute to a student’s career and college readiness and prepare students to make the right choices for their career focus.”

Kim Wegner

Early College High School Work Based Learning Coordinator
Washington Saratoga Warren Hamilton Essex BOCES