Career and Technical Education at Carlisle High School

Carlisle Area School District has offered career and technical education preparation since 1938. Carlisle High School is one of the oldest programs in the state of Pennsylvania and is one of ten comprehensive high schools in the state. Currently, there are more than eighty career and technical education programs comprised of both comprehensive and consortium programs. At Carlisle High School, more than 500 students of the 1500 that attend CHS are enrolled in a career and technical education program or linked course.

Career and technical education at Carlisle High School focuses on academic rigor, technical skill development, and workplace readiness. Our Programs of Study include Automotive Technology, a Business Academy, Carpentry/Construction Trades, Communications Technology, Computer Networking, Culinary Arts, Early Childhood Education, a Health Careers Academy, and Workforce Education. We also offer additional electives designed to prepare students for post-secondary education or to move directly into the workforce. Computer Programming, a variety of business courses such as Entrepreneurship, Personal Finance, and Business Law, Drafting and Graphic Design, and Pre-Engineering courses are a few of the options for our students to explore. We have recently added certification programs to the Health Careers Academy. Certified Nursing Assistant (CNA) and Emergency Medical Technician (EMT) classes are available to not only our CHS students, but also students from surrounding school districts. These are college-level courses, taught by HACC and Cumberland Goodwill instructors, with students sitting for their state certification testing at the conclusion of the training.

For students enrolled in a Program of Study, industry certifications are available prior to graduation. ACF (American Culinary Federation), NCCER (National Center for Construction Education and Research), and NATEF (National Automotive Technical Education Foundation) provide certifications for program areas. Students may earn certifications such as the PA State Inspection, PA State Emissions, Forklift/Bobcat/Scissors Lift Operator, Serv Safe Food Safety, OSHA Construction, Career Safe OSHA General Industry Card, Regional Employability Certificate, First Aid/CPR (Adult and Infant), and Cisco Networking. Every one of these certifications may be earned prior to a student graduating from high school and entering the workforce or enrolling in post-secondary institutions.

During a student's senior year, they may participate in cooperative education opportunities in their field of study to gain real-world experience. Students this year are working at local businesses to include local restaurants (Rillo's, Beeman's Bakery, Market Cross Pub), automotive dealerships and repair shops (Brenner Motors, Midas, Eddy's Tire and Auto), retirement/nursing home communities (Forest Park, Manor Care), financial institutions (Members' 1st Federal Credit Union), and home/community construction companies (Earthnet Energy). The construction/carpentry trade students in our afternoon program (year 2 and 3) have been working consistently building the new Project Share Farm Stand on Pitt Street. Our students have been involved in this project since the pouring of the concrete slab and have worked with planning, framing, electrical, insulating, roofing, HVAC, etc.

Many of our Programs of Study offer state-wide articulation agreements for students to continue their education and training at a college, university, or trade school through the SOAR

program (Students Occupationally and Academically Ready). According to the *Pathways to Prosperity* report (2011), it is projected that 14 million job openings will be filled by workers with an associate's degree or occupational certificate. Many of these positions will be for electricians, construction managers, dental hygienists, registered nurses, health technicians, police officers, and paralegals. Job openings due to the retirement of the baby boomers will account for many of these positions. "In fact, 27 percent of people with post-secondary licenses or certificates - credentials short of an associate's degree - earn more than the average bachelor's degree recipient" (2011). Based on these facts, college for all should now be "some" college for all, with a focus on earning post-secondary occupational credentials and certifications. Developing relationships between high school technical programs and local colleges, universities, and trade schools will advance skill development and prepare students to prosper in a competitive global economy.

In addition to the classroom and field experiences students at CHS are able to take advantage of, many of our students participate in industry-related competitions sponsored through career and technical organizations. Students regularly compete in the SkillsUSA for vocational skills (formerly known as VICA), DECA for business-related skills, TSA for drafting, design, and engineering skills, Harrisburg Builders' Show for construction trades, and the new PA Governor's STEM Competition. This year several students will be moving on to state and national competitions.

CHS offers strong, academically and technically challenging programs due in part to partnerships we have developed with local business, industry, and community leaders. We

work closely with many members of the community to develop students that our local employers are seeking. Employment Skills Center, Project Share, Carlisle Regional Medical Center, Sadler Health Center, HACC, Cumberland Goodwill EMS, Members 1st Federal Credit Union, M&T Bank, PPG Glass, Data Video, ABC 27, CBS 21, Carlisle Rotary Clubs, Carlisle Kiwanis Club, TechLink, and the Carlisle Chamber of Commerce all play a vital role in creating a workforce curriculum that will successfully transition our high school students into the local job market.

Not only do we develop challenging curriculum to meet industry standards for the students enrolled in career and technical education programs, but we have also introduced STEM-related programs to the freshman class this year. This past fall, every ninth grade student participated in the STEM Summit, sponsored by Junior Achievement. The full day STEM Summit focused on introducing students to STEM-related careers, with hands-on, project-based activities focused on Science, Technology, Engineering, and Math concepts. Students worked in groups to complete science experiments with polymers, complete an electrical circuit correctly, build a spaghetti tower strong enough to support a large marshmallow, construct a metal window frame with only a diagram, and compete against other teams to see who could walk across eggs without breaking any of them. Students had fun while learning about STEM.

Next year, we will work with Junior Achievement again to bring the Real Life program to the junior class. The program will be run in a similar fashion to the STEM Summit, but will focus on financial literacy and educating students about making decisions related to their own finances (or future finances).

As you have heard, we provide a variety of opportunities for our students at CHS and we

are very proud of their accomplishments. I would like to introduce a student who is a senior in

the construction/carpentry trades program. Courtney Fink will speak about her experiences in

the program and her future aspirations.

Reference:

Symonds, W. C., Schwartz, R. B., & Ferguson, R. (2011). Pathways to prosperity: meeting the challenge of preparing young Americans for the 21st century. *Pathways to Prosperity Project*, Harvard Graduate School of Education.