



Advanced Manufacturing

at Centerville High School



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Are you a fixer, a builder, a problem solver, or one that wants to know how things work and why? The world is in dire need of people like you! Centerville High School and Sinclair Community College have teamed up to provide you with an opportunity to explore the world of manufacturing, but not the type your parents think of -- this is more of working with modern technology, involving hands-on work with science and math integrated within the program.

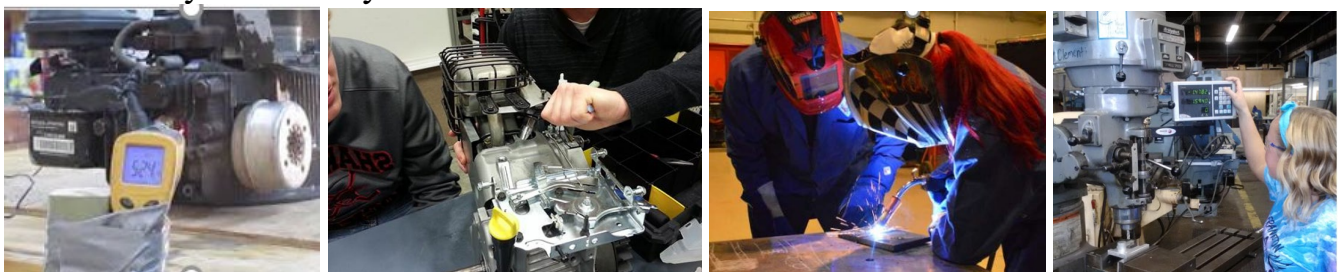
The Program:

The Advanced Manufacturing class will take place one period a day for two years. There are also two math classes that can be taken alongside it. The first year we will use the Briggs and Stratton Engine Program to explore this field. Each student will learn through the study and teardown / rebuild of a Briggs and Stratton engine. Through the two-year program your work will focus on the following:

- Industrial Safety
- Power / Energy Systems - engines, motors, hydraulics, pneumatics, AC/DC
- Quality / Measurement - precision measuring devices, industry quality standards
- Manufacturing Processes and Production - machining, welding, CNC, processes, product development
- Maintenance Awareness - lubrication, bearings/couplings, automation systems, belt/chain drives

As you go through the program, you will also be tested to earn certifications to be a Certified Production Technician by the nationally recognized MSSC (Manufacturing Skills Standards Council) CPT program. You will also receive college credit through Sinclair Community College!

Industry tours will take place throughout the two years and internship opportunities are available your senior year.



Why Not YOU???

DRIVEN BY NEED AND OPPORTUNITY

Listed as one of the key industries for economic development in the Dayton region, the manufacturing industry is one of the largest, most highly developed centers in the United States; and it is great need of young qualified workers.

According to the Dayton Regional Manufacturing Association:

- over 2,476 manufactures do business in the Dayton region; from 2015 to 2025, there will be an estimated 3,301 openings in production occupations annually;
- the average entry-level CNC operator earns \$28,000-\$30,000 a year with benefits and overtime available through many employers; and
- the average experienced CNC programmer can make more than \$100,000 a year, with benefits and overtime available through many employers.

GRADUATION, EDUCATION, & WORKFORCE-READINESS

The Advanced Manufacturing Program at CHS will start during the student's junior year and conclude at the end of the student's senior year.

Students who successfully complete the program will satisfy their graduation requirements for CHS, earn college credits from Sinclair Community College, and earn an industry-recognized credential that will make students workforce ready upon graduation.

Students may also continue their post-secondary education at Sinclair, other colleges, trade schools, or go to work and have their employer assist with more training and education!



STARTING THE PROGRAM

Beginning in the first semester of the student's junior year, students will begin exploring the world of advanced manufacturing.

In this program, students will:

- enroll in the Advanced Manufacturing Class to explore aspects of Advanced Manufacturing through a hands-on approach to learning
- visit many of the local businesses, learn about the opportunities in the Dayton region, and begin making connections for potential internships
- earn credits through Sinclair Community College and begin preparation for the Manufacturing Skill Standards Council certification
- enroll in a senior block program that will focus on preparing students for an ongoing education and workforce readiness