

## Program Course Sequence

### *Junior Year, All Year*

Principles of Competitive Manufacturing

### *Senior Year, First Semester*

Manual Milling

### *Senior Year, Second Semester*

CNC Turning:  
Programming Set-up &  
Operations



***Expect Success at CCST***  
***Certifications, Citizenship,***  
***Skills & Technology***

*Students from the five county high schools have the opportunity to begin programs during their junior year by a designated application process. Students will complete their programs during their senior year.*



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## Manual Machining/ CNC Programming & Operations



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*Expect Success at CCST*  
*Certifications, Citizenship, Skills & Technology*

# MANUAL MACHINING/CNC PROGRAMMING & OPERATIONS

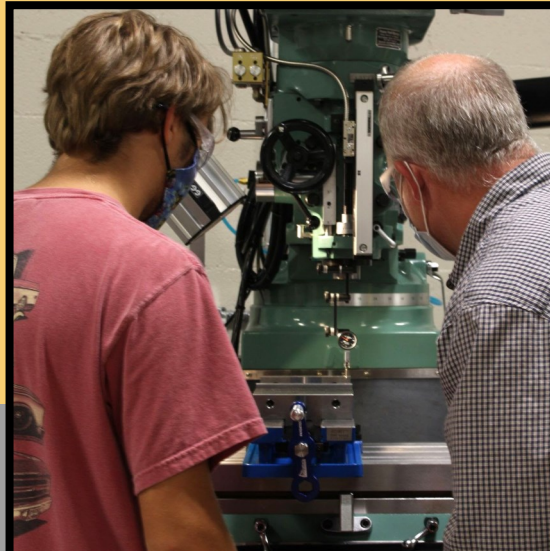
## PROGRAM OVERVIEW

This program prepares students for a beginning career in manufacturing and machine technologies and aligns with the National Institute of Metalworking Skills (NIMS) Machining Level I Credentials. The program involves classroom instruction and hands-on education in precision machining while developing competency in process control, manual operations, process adjustment, part inspection, as well as demonstrating safety in machine operations. Students will also develop the work place skills necessary for success in the industry.



## EXAMPLES OF PROGRAM TOPICS

- Develop inspection plans and inspect simple parts using precision tools and techniques
- Learn and demonstrate quality assurance, process planning, and quality control
- Read and develop technical drawings
- Perform bench work drilling, threading, tapping, and reaming operations
- Produce a part that matches a process plan and the print specifications
- Perform routine milling and location of hole centers
- Apply principles of 3D coordinate planes and develop a program for producing a part on a CNC lathe or CNC turning center



## MAIN PROGRAM AREAS

- Manual Milling
- Measurement, Materials, & Safety
- Job Planning, Bench work, & Layout
- CNC Turning: Programming Set-up & Operations



## AVERAGE WAGE FOR ALL TYPES OF MANUFACTURING JOBS

**Average Hourly Wage:**  
**\$35.93**

**Average Annual Wage:**