



# Advanced Manufacturing Machine Technology

## CERTIFICATE

### CONSIDER MANUFACTURING

- Do you enjoy working with tools and computers?
- Do you like working with your hands as well as your mind?
- Are you curious about the way things work and how they are made?
- Do you possess the ability to focus on precision and quality?
- Are you interested in learning advanced technologies with the latest software and equipment?
- Are you curious about manufacturing careers in the aerospace, biomedical, plastics & composites or metals sectors?

If the answer to any of these questions is yes, the Advanced Manufacturing Machine Technology program may be for you.

“Manufacturers in Fairfield and New Haven counties have been asking for a program that will provide skilled workers capable of meeting our employment needs. We stand ready to support and hire HCC graduates who can make the grade.”

Kris Lorch, President - Alloy Engineering  
New Haven Manufacturers Association  
Manufacturer’s Training and Education Alliance (METAL)

The Southwestern Connecticut Advanced Manufacturing Technology Center, established at Housatonic Community College in 2012, is part of a statewide initiative to provide skilled employees for the growing manufacturing industry.

From research and development, to manufacturing, to maintenance and repair, skilled machinists are in great demand. Machinists now use sophisticated manual and computer numerically controlled (CNC) machine tools, precision instruments, and state-of-the-art software to produce tools and parts for a wide range of industries.

Current labor statistics indicate dramatic shortages of skilled workers and anticipated growth (not including attrition projections) of 3000 Connecticut jobs per year through 2030. According to CCSU labor statistics, average starting salaries are above \$42,000, with projections including overtime and fringe benefits (health insurance, 401k plans etc.) after five years approaching \$70,000.

## ABOUT THE PROGRAM

The Advanced Manufacturing Machine Technology program is a one school year (9 month) certificate program. It is an intense thirty-five hour per week, thirty-four college credits\* program designed to provide students with the 21st Century manufacturing skills needed by today's industry.

Supportive partnerships exist with many local companies, allowing the AMTC to adjust instruction in real time. The end result is 100% graduate placement for the last five years! Upon completion, students will have also earned NIMS and OSHA 10 certification critical to working in manufacturing.

## QUICK FACTS

- There are 4755 manufacturing firms in Connecticut
- They add about 25 billion dollars to the state economy
- They employ 163,000 people and account for 11% of Connecticut's workforce

## ADMISSION TO THE PROGRAM

All students need to complete the program information package and admissions process. Admission to the program is selective and completion of minimum requirements does not guarantee acceptance. Applicants are responsible for obtaining the most current Advanced Manufacturing Program application requirements and paperwork. Once admitted, students are required to maintain a grade of "C" in each program course for progression in the program.

The program is designed to provide students with an advanced level of manufacturing skills for employment in machine technology and CNC manufacturing environments. A planned sequence of instruction includes fundamentals of Manual Machining (lathes, millers and grinders) and Computer Numerical Control technology along with Blueprint Reading, Technical Math, Metrology and design software most common among regional industry. Spending half their time in a hands-on shop setting, student progression continues through second semester with more advanced applications required for program certification. During this semester students in good standing (B or better grades, strong attendance and full project completion) will be permitted to participate in a paid internship on Fridays only. These are arranged by mutual agreement through the AMTC with manufacturing partners and are intended to provide students an authentic on-the-job experience typically leading to full-time employment.

## SUGGESTED SEQUENCE OF COURSES:

Prerequisite or parallel courses may be required. Please check individual course descriptions for details.

|   |   |
|---|---|
| MFG E105 - Manufacturing Math II                | 3 |
| MFG E110 - SolidWorks                           | 3 |
| MFG E120 - Metrology                            | 3 |
| MFG E124 - Blueprint Reading I                  | 2 |
| MFG E125 - Blueprint Reading II                 | 3 |
| MFG E150 - Introduction to Machine Technology   | 4 |
| MFG E160 - Geometric Dimensioning & Tolerancing | 3 |
| MFG E165 - Intermediate Machine Technology      | 3 |
| MFG E166 - Benchwork                            | 1 |
| MFG E168 - Computer Numerical Control I         | 3 |
| MFG E256 - Manufacturing Machinery - CNC II     | 3 |
| QUA E114 - Principles of Quality Control        | 3 |
| * Required Non-Credit Courses                   |   |

Total Credits: 34

Please note:

\* Additional non-credit courses are included in the curriculum. The noncredit classes include Manufacturing Math I (MFT E5008), CNC Manual Machine Projects (new), Career Awareness (MFT E5012), and CMM (MFT E5014).

NOTE: Test-out opportunities from the non-credit Manufacturing Math are available.

NOTE: Please read Expectations for Student Use of Computers in Courses here.

## COST OF THE PROGRAM

The total cost of the program is \$8500. Financial aid and scholarships are available. Price is subject to change.

## FOR MORE INFORMATION CONTACT:

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