



HOUSATONIC COMMUNITY COLLEGE

Advanced Manufacturing Technology Center

Course Title: CNC II

Course Number: MFG 256

Credits: 3

Course Description: The second course in Computer Numerical Controlled programming provides further study of CNC programming for the Lathe and Vertical Machining Center. Topics include setup and tooling, programming simple parts, canned drilling cycles, circular interpolation, special milling cycles, cutter compensation, looping and macros, and special features.

Prerequisites: *Successful completion of Course Number MFG 168 CNC I*

Course Objectives: At the conclusion of this course students will be able to...

- Establish Points of Origin
- Set Tool Length Offsets
- Safely operate a CNC Lathe and a CNC Vertical Machining Center
- Program simple parts for a “Conversational” lathe control
- Program simple parts in “G-Code” for a CNC VMC
- Program canned drilling cycles
- Program circular interpolation
- Program cutter compensation
- Program looping and macros
- Program a Fanuc Controlled VMC
- Use Mastercam Mill 2D to program parts

Course Content: Students will learn to work with...

- Trigonometry
- Programming a CNC Lathe
- Programming a CNC Vertical Machining Center
- Circular Interpolation
- Drilling canned cycles
- Programming with a Fanuc Controlled VMC
- Cutter diameter compensation
- Looping and Macros