

NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

COURSE SYLLABUS

Course Title: CNC Operations

Course #: MFG C258

Course Description:

This course covers 3-axis CNC machining centers and 2-axis turning centers. It is designed to help the student understand the processes, tools, programs, and machines used by machine operators and programmers. Related topics also include shop safety, print reading, hand tools, measurement, layout work and cutting fluids. Students will apply classroom lessons to part programming for the purpose of fabricating parts on CNC equipment.

Pre-requisite: MFG C156 with a “C” or better

Goals: To develop the skills necessary for programming and set-up of typical CNC milling / turning machines.

Outcomes: Upon successful completion of this course each student must

- Demonstrate, apply, and operate each of the following on a CNC machine through in-class independent testing of each individual student
 - Axis and Coordinate System;
 - Machining Centers / Turning Centers;
 - Programming Process for Machining & Turning centers;
 - Programming Codes for Machining & Turning Centers;
 - Programming Format for Machining & Turning Centers;
 - Canned Cycles;
 - Subprograms;
 - Mathematics for NC Programming.