

NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

COURSE SYLLABUS

Course Title: Manufacturing Processes / Precision Machining - LAB **Course #:** MFG 103

Course Description:

This course provides laboratory emphasis on common cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill presses, and measuring instruments.

Co-requisite: MFG 102

Goals: To further develop fundamental knowledge of machining. Students learn basic tool room machinery and how to use measuring tools. National Institute of Metal Working Skills credential.

Outcomes:

Students meeting the objectives of this Lab are able to:

- Work safely in a manufacturing environment.
- Perform measurements using steel rules, micrometers, and calipers.
- Identify machinery and tools used in a manufacturing environment.
- Prepare a piece of standard stock for machining.
- Perform semi and precision layouts.
- Operate support equipment such as band and cut off saws.
- Operate milling machines, Lathes, Drill Presses, and Surface Grinders.
- Calculate speeds and feeds.
- Make simple parts.