

MFG 260 : CNC LATHE SETUP & OPERATION

Transcript title

CNC Lathe Setup Operation

Credits

4

Grading mode

Standard letter grades

Total contact hours

80

Other hours

80

Prerequisites

MFG 100 and MFG 110.

Prerequisites with concurrency

MFG 259.

Course Description

Introduces basic operation and setup used with Fanuc compatible CNC Lathe machining centers.

Course learning outcomes

1. Apply machine shop safety concepts and safety practices.
2. Demonstrate the functions of automatic and manual CNC Lathe machine operations.
3. Explain five CNC Lathe modes of operation including manual, manual data input (MDI), edit, and program operation - memory (automatic) and tape.
4. Describe the key sequences of CNC Lathe machine operation for machining centers.
5. Demonstrate CNC Lathe program verification such as: safety priorities, running good parts, and verification of programs.

Content outline

• CNC Lathe Machine safety • CNC Lathe Machine nomenclature • Controller modes and operation of a CNC Lathe, including the use of the buttons, switches, and keys found on CNC Lathe machine control units (MCU), the control panel display, machine operation, feed, spindle speed, tool changing, and axis motion and automatic/manual operation of the machine tool. • Tool holder setups • Establishing cutter tool length compensation for a CNC Lathe • Tooling page editing • Part cutting operations • Conversational programming basics for a CNC Lathe

Required materials

Requires textbook and required tools for second term machining students.