MFG 219 - CNC MILL OPERATIONS

Course Description

This course includes the operation of CNC (Computer Numerical Control) mills including calling up programs, loading and unloading parts, part inspection, and monitoring tool wear. This course will provide an introduction to planning and writing programs for CNC mills and using standard G and M codes. Learners will set up work pieces in machines, enter programs, set tool offsets, enter work offsets, and complete part projects. Group 2 course.

Credit Hours

4

Contact Hours

6

Lecture Hours

3

Lab Hours

3

Recommended Prerequisites or Skills Competencies

MFG 113 or MNG 260

General Education Outcomes supported by this course

Quantitative Reasoning

Course Learning Outcomes

Knowledge:
- Identify the capabilities of various CNC mill machine tools.
- Demonstrate effective metal cutting principles.

Application:
- Apply kinetic cutting principles to all machining operations.

Integration:
- Perform operations on CNC machines to meet specifications on a given point.

Human Dimension:
- Collaborate with others to work effectively in the shop environment.

Caring - Civic Learning:
- Demonstrate caring through proper use of tools.

Learning How to Learn:
- Transfer the concept of order of operations of a system to new situations.