

BASIC MACHINE OPERATOR CERTIFICATE OF CAREER PREPARATION

This certificate is designed to prepare students with basic entry-level machine operator skills, safety knowledge, theory, and quality control skills in manufacturing processes. Students obtaining this certificate will qualify for the first level certification in National Industry Metal Skills (NIMS).

| Code | Title | Units |
|--------------------------|--|-----------|
| Required Courses: | | |
| MACH 021 | Machine Shop I | 4 |
| MACH 075 | Introduction to Three-Dimensional Computer-Aided Design (3D-CAD) | 3 |
| MACH 090 | Mechanical Print Reading | 3 |
| MACH 120 | Machine Shop Theory | 2 |
| Total Units | | 12 |

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

Program Learning Outcomes

At the completion of this program, students will be able to:

- Prepare a part for NIMS bench and layout certification.
- Properly use hand grind cutting tools in machine tool cutting operations.
- Generate a 3-D assembly from a detailed illustration.
- Apply the formula for calculating feeds and speeds.
- Calibrate a micrometer.