

SKILL UP

FOR MANUFACTURING



Skill Up graduate manufacturing competencies

At the conclusion of the Skill-Up program, students will be able to...

- ✓ Exhibit understanding of safety procedures and protocols in the workplace
- ✓ Demonstrate appropriate work ethic; including attendance, punctuality, responsibility, ability to follow instructions, teamwork, problem-solving and positive attitude
- ✓ Utilize fractions, decimals, percents, proportions as applied to manufacturing measurement
- ✓ Locate and interpret information, including dimensions and tolerances on basic blueprints
- ✓ Safely operate a band and cut-off saw
- ✓ Setup and safely operate a vertical mill
 - Plans sequence of milling operations; set up machine; change cutting tools. indicate vice or work piece, set speeds, feeds, and depth of cut
 - Use cutters to face and side mill to square a part within .005"
 - Center drill & drill holes to size in locations following blueprint dimensions
 - Drill, counterbore, ream, and countersink
- ✓ Set up and safely operate a lathe
 - Plan sequences of lathe operations; set up machine; mount a work piece in jaw chucks; set speeds and feeds
 - Face to length, turn diameter to size, knurl, and form
 - Correctly center drill and drill to size
- ✓ Demonstrate basic CNC functional skills
 - understand cartesian coordinate system
 - load parts and safely operate machine