

SOUTHWESTERN ILLINOIS COLLEGE

MISSION STATEMENT

The Manufacturing Technology Program embraces the college mission statement as it offers lifelong learning opportunities to students who are seeking, or in the process of developing careers as manufacturing technicians. This program will work through its advisory committee to identify and establish program goals that will meet or exceed those required by industry. Students will be provided access to “state of the art” labs for “hands on” experience that will support a world class-manufacturing base within the local and surrounding communities. The program continually assesses student learning and makes necessary modifications in teaching methods as indicated to best prepare students for employment as a drafting technician.

MANUFACTURING TECHNOLOGY

Upon completion of the Manufacturing Technology program, the student will be able to:

- ✓ demonstrate use of common manufacturing terminology.
- ✓ demonstrate use of measuring tools.
- ✓ read and interpret drawings as they relate to students specific concentration.
- ✓ interact with fellow students to solve problems and work on group projects.
- ✓ use oral and written communication to interpret drawings as they relate to the students concentration.
- ✓ maintain a safe working environment/conditions and respond as needed in a medical emergency.
- ✓ incorporate and demonstrate common competencies (math, reading, writing, computer competency, and civil and social awareness) as they relate to students area of concentration.

Machine Tool Concentration:

- ✓ demonstrate ability to operate machine lathe, vertical mill, surface grinder, drills, grinders and other common components typically found in machine shops.
- ✓ create a project within specification by using machining processes.

Computer Aided Drafting Concentration:

- ✓ demonstrate the steps necessary to create, modify, and revise drawings using a computer aided drafting application.
- ✓ communicate pictorially.
- ✓ create 2 Dimensional multiview drawings from 3 Dimensional objects/pictorial projections using basic drafting techniques.
- ✓ incorporate ANSI (American National Standards Institute)/ASME (American Society for Mechanical Engineers) standards.

Electronics Concentration:

- ✓ use test equipment and tools commonly utilized by electrical technicians.
- ✓ analyze and interpret schematic, wiring, and logic diagrams.
- ✓ utilize diagrams, drawings, and technical manuals to troubleshoot electrical and electronic circuits and systems.
- ✓ define and use electrical terminology.
- ✓ design, construct, and test basic electrical and electronic circuits.

Submitted by: Shauna Scribner

Division: Math and Science

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Status: Approved