



South Central College

MTT 1240 Applications I

Course Outcome Summary

Course Information

Description	In this course, students will have the opportunity to continue to develop their skills on the lathe and mill with practical hands-on experiences in a lab setting. A continuation of set-up, operation and safety of lathe and mill will be reinforced in this course. (Prerequisites: MTT 1110 and MTT 1120)
Total Credits	3
Total Hours	96

Types of Instruction

Instruction Type	Credits/Hours
Lab	3/96

Pre/Corequisites

MTT 1110 and MTT 1120

Institutional Core Competencies

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

- 1. Explain the functions and parts of the lathe**
Learning Objectives
Identify all the parts of a lathe and mill
Demonstrate the function of each part of a lathe and mill
- 2. Demonstrate comfort with various toolholding devices**
Learning Objectives
Identify a variety of toolholding devices
Use toolholding effectively
- 3. Compare and contrast roughing and finishing operations**

Learning Objectives

Describe roughing operations
Describe finishing operations
Utilize appropriate operation for a given task

4. Describe the different classes of fit

Learning Objectives

Identify classes of fit
Apply class of fit to a lathe and mill task

5. Exhibit lathe and mill safety precautions

Learning Objectives

Identify processes in place to ensure safety on the lathe and mill
Practice safe use and maintenance of the lathe and mill

6. Practice use of precision measurement hand tools

Learning Objectives

Explain use of various hand tools
Select proper tools for machining operation
Demonstrate precision measurement tool use skills

7. Perform calculations required for lathe projects

Learning Objectives

Identify necessary calculations for a machining operation
Explain why correct calculations are essential

8. Utilize lathe and mill for a variety of projects

Learning Objectives

Create a variety of parts on the lathe and mill
Use engineering drawings to determine job specifications
Utilize prints to make parts

9. Implement a comprehensive machine maintenance plan

Learning Objectives

Identify maintenance needs for the lathe and mill
Evaluate maintenance plan and modify as needed
Utilize maintenance daily as continuous improvement to machine operation

SCC Accessibility Statement

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: www.southcentral.edu/disability

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.