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

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Credits/Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab</td>
<td>3/96</td>
</tr>
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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

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