South Central College

CIM 1204 Vertical Milling II

Common Course Outline

Course Information

Description  In this course, students will have the opportunity to continue to develop their skills with vertical milling with practical, hands-on experiences in a lab setting. Set-up, operation, and safety of the manual mill use will be reinforced in this course. (Prerequisites: CIM 1104 - Vertical Milling I)

Total Credits 2.00
Total Hours 64.00

Types of Instruction

Instruction Type  Credits/Hours
Lab 2/64

Pre/Corequisites

Prerequisite  CIM 1104 - Vertical Milling I

Institutional Core Competencies

Analysis and inquiry: Students will demonstrate an ability to analyze information from multiple sources and to raise pertinent questions regarding that information.

Critical and creative thinking: Students will develop the disposition and skills to strategize, gather, organize, create, refine, analyze, and evaluate the credibility of relevant information and ideas.

Foundations and skills for lifelong learning: Students will display an understanding of learning as a lifelong process through demonstration of a desire to learn, the willingness to apply learning to other areas of their lives, the ability to think and act independently, be willing to take the initiative to get projects done, and demonstrate the ability to reflect upon what has occurred and how it impacts the student and others.

Course Competencies

1. Explain the functions and parts of the vertical mill.

Learning Objectives
Identify all the parts of the vertical mill.
Demonstrate the function of each part of the vertical mill.

2. Demonstrate comfort with precision measurement hand tools.

Learning Objectives
Identify several precision measurement hand tools.
Select appropriate tool according to work specifications.
3 Practice Speed and Feed operations.
   Learning Objectives
   Calculate proper Speeds and Feeds.
   Adjust Speeds and Feeds according to needs.

4 Demonstrate deburring methods and practices.
   Learning Objectives
   Identify situations where deburring is necessary.
   Select the appropriate tool for deburring.
   Demonstrate proficiency in deburring.

5 Exhibit safety precautions on the vertical mill.
   Learning Objectives
   Identify processes in place to ensure safety on the vertical mill.
   Practice safe use and maintenance of the vertical mill.

6 Utilize the vertical mill for a variety of projects.
   Learning Objectives
   Create a variety of items on the vertical mill.
   Utilize engineering drawings to determine job specifications.
   Utilize prints to make parts on the vertical mill.

7 Implement a comprehensive machine maintenance plan for the vertical mill.
   Learning Objectives
   Identify maintenance needs for the vertical mill.
   Evaluate maintenance plan and modify as needed.
   Complete maintenance in an ongoing way.

SCC Accessibility Statement
If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. This information will be made available in an alternative format, such as Braille, large print, or cassette tape, upon request. If you wish to contact the college ADA Coordinator, call that office at 507-389-7222.

Disabilities page http://southcentral.edu/academic-policies/disability-rights.html