

Common Course Outline
CAMM 161
MILLING MACHINE OPERATION
3 Semester Hours

The Community College of Baltimore County

Description

Milling Machine Operation

Provides instruction and practice in the theory and operation of vertical milling machines; includes set-up, operation, adjustment, truing of the head, and routine maintenance.

Prerequisite: CAMM 111

Overall Course Objectives

Upon completion of this course the student will be able to:

1. Set-up and operate vertical milling machines.
2. Construct simple and complex set-ups for projects
3. Choose the process that is the most efficient and will achieve the required finishes
4. Calculate feeds and speeds for various work materials and cutting tools
5. Create precision machined parts to specifications
6. Evaluate finished lab projects as per specifications and list deficiencies

Major Topics

- I. The Vertical Mill
 - A. Safety
 - B. Head alignment
 - C. Work holding
 - D. Work alignment

- II. Processes
 - A. Pocketing
 - B. Speeds and feeds
 - C. Cutting tools
 - D. Milling keyways
 - E. Using the boring head
 - F. Tee slots

Course Requirements

Grading: The faculty member will determine grading procedures, and a student can expect a minimum of eight grades from at least four of the following categories:

1. Quizzes
2. Lab projects
3. Written paper
4. Homework assignments
5. Midterm exam
6. Class participation
7. Comprehensive final.

Other Course Information

This course is taught in a laboratory environment.

Date Revised: 6/1/00