

**Common Course Outline**  
**CAMM 206**  
**CNC SPECIALIZATION PROGRAMMING**  
**3 Semester Hours**

**The Community College of Baltimore County**

**Description**

**CNC Specialization Programming**

Covers specific applications of interactive graphics using Computer-Aided Manufacturing (CAM) software; uses engineering designs to generate Numerical Control (NC) tool-paths that can be downloaded to CNC machine tools.

Prerequisite: CAMM 111 and CAMM 101

**Overall Course Objectives**

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

1. Describe the software's user interface.
2. Create a new CNC file.
3. Change the display configuration.
4. Create 2-D geometry.
5. Demonstrate the use of layers.
6. Describe masking.
7. Demonstrate simulation of a machine tool.
8. Create a tool library.
9. Construct and display tool-paths.
10. Make use of CAM software to verify programs.

**Major Topics**

- I. Introduction to CNC Software
  - A. Setting the origin
  - B. Assigning tools
  - C. Program storage
  - D. Creating milling operations
  
- II. Viewing the Work Piece
  - A. Changing work planes
  - B. Cutter path Simulation
  - C. Changing the part Zero
  
- III. Editing
  - A. Editing the part geometry

B. Editing the CNC code

**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 computerized environment.

Date Revised: 6/1/00