

Master Syllabus

CAM 2212 - Computer Assisted Programming

Division: Science, Mathematics and Engineering

Department: Computer Aided Manufacturing

Credit Hour Total: 3.0

Lecture Hrs: 2.0 **Lab Hrs:** 2.0

Prerequisite(s): CAM 1107AND CAM 1214

Date Revised: January 2015

Course Description:

An introductory course in the use of Computer Aided Design (CAD)/Computer Aided Manufacturing (CAM) software (MasterCAM) as applied to computer numerical control vertical machining centers. Two classroom, two lab hours per week.

General Education Outcomes:

- Critical Thinking/Problem Solving Competency

Course Outcomes:

File Import

Demonstrate the ability to import drawings into computer aided design/computer aided manufacturing software and prepare for generating a cnc program.

Assessment Method: Locally developed exams

Performance Criteria:

70% of students will earn 70% or higher on exams

Turning Center

Demonstrate the ability to program simple and complex parts for machining in a turning center using computer aided design/computer aided manufacturing software.

Assessment Method: Locally developed exams

Performance Criteria:

70% of students will earn 70% or higher on exams

Drawing Software

Demonstrate ability to draw two dimensional drawing, dimension, and extrude to wire frame using computer aided design/computer aided manufacturing software.

Assessment Method: Locally developed exams

Performance Criteria:

70% of students will earn 70% or higher on exams

Machining Center

Demonstrate the ability to program simple and complex parts for machining in a vertical machining center using computer aided design/computer aided manufacturing software.

Assessment Method: Locally developed exams

Performance Criteria:

70% of students will earn 70% or higher on exams

Outline:

Drafting with CAD/CAM software

Vertical machining center programming using CAD/CAM software

Turning center programming using CAD/CAM software

Importing files into CAD/CAM software and prepare for programming