

## 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

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### 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