



**Course Syllabus
Fall Semester 2006**

School of Technology

Program Name: Advanced Integrated Manufacturing Systems Technologies Program

Course Name: CNC Mill Applications

Course Number: CAM 122

Credits: 2

Contact Hours: 1 Lecture 3 Lab

Select from List

Select from List

Instructor's Name:

Office Hours & Location:

Campus Phone:

Campus E-mail:

Additional Contact Information:

Catalog Description: This is an examination of basic programming techniques with a review of tooling requirements for CNC milling. Laboratory will consist of programming and operation of the CNC equipment.

Prerequisites/Co-Requisites: CAD 125 or AIM 161

Current Textbooks, Materials, Equipment (software/hardware requirements):

TEXT(S): Introduction to Computer Numerical Control, by James Valentino and Joseph Goldenberg, Calculator with Trig Functions, Scale.

General Information

For information on FERPA, Cheating and Plagiarism, Assessment of Student Learning Outcomes and Student Code of Conduct, please refer to the appropriate section of the current Owens Community College Catalog online.

Course Outcomes:

1. -Learn to set-up, operate, and program Haas CNC Mills.
- 2.
- 3.
- 4.

- 5.
- 6.

Student Learning Outcomes:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Grading Procedure: (i.e., include the way in which the grade is calculated)

GRADING PROCEDURES:

Lab Assignments	25%	A	90 - 100.00%
Quizzes	25%	B	80 - 89.99%
Midterm	25%	C	70 - 79.99%
Final Exam	25%	D	60 - 69.99%
TOTAL	100%	F	00 - 59.99%
Instructor Discretion	0 - 5%		

Specific Course Rules Attendance

Specific Course Rules Make-up Test Policy

Specific Course Rules Cell Phone Usage

Cell phones need to be turned off or in vibrate mode. All calls need to be taken outside of the classroom.

Specific Course Rules: Class Participation

Specific Course Rules: Select from List

Specific Course Rules: Select from List

Disability Resources Services: If you have a disability or acquire one, you may be entitled to receive individualized services and/or accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more

information or to apply for services, please contact the Disability Resources Services Office.

Miscellaneous Information: This course and successive courses are instructed via weekly lecture, demonstration and lab activities centered on application of the concepts being learned. CBT/WBT simulations, instruction and or demonstrations may supplement this information where applicable.

MATERIAL / SUPPLIES FEE: \$50.00

This fee covers the cost of consumables, replacement of worn or damaged components, software and hardware upgrades as well as fees for duplication.

This course is a part of the Advanced Integrated Manufacturing Technologies program as a required course.

Resources: Select from List

Resources: Select from List

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Assignment Calendar

Week	Topic	
1	Introduction Syllabus, Shop Tour	Assignment - tooling
2	Identify Tooling/Inserts Examples tool sheets Speeds & Feeds	Change inserts/Identify tools Load tools into machine Per tool sheets
3	Overhead/Transparencies of Mill program Review for Quiz	Practice typing A/ Computer B/ MDI at Machine C/ Editing D/ Upload & Download
4	Trans on Mill 3-Axis movements Demo: G54-G59 G43 #1 Tool Change (MDI) Spindle on (MDI) QUIZ 1	Home Machine Handle Jog Set mult. Homes Set Length offset Have different tools To Set Tool Change MDI etc.
5	Review Quiz	Finish Week 4 Lab
6	Demo: Edge Finder Dial Indicator	Set-up Fixture & Tooling to run
7	Review Midterm Review Mill Programs	Debug a Program
8	MIDTERM	No Lab
9	Demo: Plate, with Slot, Hole, distances Pin, Etc.	Using machine find
10	Hand-out on 1. Block of steel 2. Program 3. Tool sheet	Student load & run Use Offsets to Adjust part size
11	Programming Linear Profiles Tool Center	Student Programming
12	QUIZ Programming Arcs	Load & Run use offsets
13	Programming Tool-Compensation	Student Programming
14	Programming G81 Hole Cycle	Student Programming
15	Review for Exam	Make-up Lab

Disclaimer: “The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course.”