COURSE INFORMATION FORM

DISCIPLINE  CIMM

COURSE TITLE  Capstone – CNC Milling

CR.HR  1  LECT HR  .5  LAB HR  1  CLIN/INTERN HR.  _______  CLOCK HR.  _______  

CATALOG DESCRIPTION

A student receives NIMS Level I Credential in CNC Milling upon successful completion of the performance test and theory exam. NIMS documents the skills of the individual through the consortium developed skill standards.

PREREQUISITES

CIMM 100, 105 & 122

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)

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

1. Set up, program and operate a CNC mill or machining center and manufacture a part within tolerance.
2. Interpret a process sheet and part print.
3. Use the x, y, z Cartesian coordinate system.
4. Create a tool setup sheet.
5. Practice fundamental machine processing, feeds and speeds.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

Outcomes  ESO

PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Students will demonstrate the ability to apply foundational skills in an industrial setting, safely and to industry guidelines.
2. Students will think critically and apply problem-solving skills.
3. The program will graduate individuals who exhibit competence in CNC programming, setup and operation.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

Exams:  1 – 5
Lab Projects:  1 - 5
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. National Institute for Metalworking Skills (NIMS)
   A. Overview
   B. NIMS registration
   C. NIMS special credentials

II. Performance evaluation procedures

III. Related theory, credentialing exam procedures

IV. Machine tool technology safety

V. Credentials – CNC Milling