Wayne County Community College District

COURSE SYLLABUS

NC 234   CNC Programming and Machining II

CREDIT HOURS: 3.00

CONTACT HOURS: 45.00

COURSE DESCRIPTION:

This course will allow students to create programs for CNC programs through the use of codes and dialog programs. A diverse variety of programming techniques such as canned cycles are edited, simulated and verified prior to the machine operations.

PREREQUISITES: *NC 222*

EXPECTED COMPETENCIES:

Upon successful completion of this course, the student will:
1. Know how to setup a coordinate system on a CNC lathe
2. Demonstrate a proficiency in machining parts using CNC equipment
3. Use all safety rules for CNC machining
4. Know how to input and edit programs on-line and off-line
5. Be able to run machine graphics and interpret the results
6. Demonstrate how to use tooling needed in programs
7. Interpret the various machine tool displays and operator functions
8. Know the basic codes for programming and how to use them
9. Understand the process of program input and editing offline
10. Correct errors in tool paths as seen on a graphic system
11. Manipulate the software parameters for program function
12. List the steps to name, save, print, edit and transfer programs to the machine tool
13. Know the variety of tuning canned cycles and how to use them
14. Understand and use a variety drilling cycles
15. Describe the metric measurement system for programming
16. Know the difference between incremental and absolute dimensioning systems
17. Understand the basics of mill programming

ASSESSMENT METHODS:

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:
90%-100% = A
80%-89.9%= B
70%-79.9%= C
60%-69.9%= D
<60% = E