

**NORTHEASTERN TECHNICAL COLLEGE
COURSE OUTLINE**

COURSE:	PREFIX NO.	EFFECTIVE DATE	NEXT REVIEW DATE		
MTT	255	SUMMER 2010	SUMMER 2012		
TITLE:	CREDITS	CONTACTS			
		CLASS	LAB	TOTAL	
CNC PROGRAMMING II	3	2	3	3	

PREREQUISITES: MTT 254

DESCRIPTION:

LEVEL 1: This course includes CNC Programming with simulated production conditions.

LEVEL II: This course covers programming multiple complex internal and external operations.

TEXTBOOK(S) OR ALTERNATIVE:

Handouts

MATERIALS (specifying those to be purchased by student):

Approved Safety Glasses

COLLATERAL READING:

Programming manuals

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, etc.):

Attendance: The student is required by the instructor to attend 90% of the classes. Excessive absences will result in the student being dropped from the course.

Tardies: Three tardies must constitute one absence.

Testing: Tests and pop quizzes will be given at instructor's discretion.

Academic Dishonesty: Students are expected to do their own work. Please refer to the NETC Student Code and Grievance Procedure for a definition of academic dishonesty and an outline of the disciplinary action that may result therefrom.

Disabilities Statement: Students with disabilities are encouraged to contact the Vice President for Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Vice President for Student Services will provide guidance regarding official documentation of

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disabilities and/or accommodation of needs. (See College Catalog)

Student ID: It is mandatory that every student wear his or her student ID at all times. Instructors are required to dismiss students without ID from class. The student may get his/her ID and return to class before the midpoint of the class. If the student cannot get an ID and return to class by the midpoint, the instructor will record the absence.

RESOURCES (A-V, persons, tools/equipment):

COURSE TOPICAL OUTLINE: (List topics and sub-topics of course) and Calendar or approximate length of time devoted to topic.

Week 1: Determining the sequence of operations for complex parts.

Week 2: Determining the tooling and tool position for complex parts.

Week 3: Creating geometry and tool paths for multiple operations.

Week 4: Creating geometry and tool paths for multiple operations.

Week 5: Creating geometry and tool paths for multiple operations.

Week 6: Creating part programs.

Week 7: Creating part programs.

Week 8: Creating part programs.

Week 9: Creating part programs.

Week 10: Creating part programs.

Week 11: Setting up and test running programs.

Week 12: Setting up and test running programs.

Week 13: Setting up and test running programs.

Week 14: Setting up and test running programs.

Week 15: Setting up and test running programs.

OBJECTIVES/STUDENT LEARNING OUTCOMES OF COURSE:

1. The student will demonstrate the ability to determine the sequence of operations for complex parts.
2. The student will demonstrate the ability to determine the tools and tool positions for multiple internal and external operations.
3. The student will demonstrate the ability to create geometric shapes for complex parts.
4. The student will demonstrate the ability to create tool paths for multiple complex operations.
5. The student will demonstrate the ability to create part programs for multiple complex operations for a piece part.
6. The student will demonstrate the ability to set up and test run programs to produce multiple operations for complex parts.

INSTRUCTIONAL METHODS TO COMPLETE STUDENT OBJECTIVES:

Demonstrations on computers and machines

EVALUATIVE METHODS TO APPRAISE STUDENT OBJECTIVES:

Inspection of parts and programs
Observation of care of equipment
Observation of work habits

GRADING:

100 - 93 = A
92 - 85 = B
84 - 77 = C
76 - 69 = D
68 -BELOW = F

PARTICIPATION: Evaluation of your participation will be based on the following:

- (100 - 80) Comes to class prepared; voluntarily and enthusiastically participates in classroom activities, presentations, and clean-up. Stimulates creativity and demonstrates excellent completion of in-class assignments. Must demonstrate respect to instructor and fellow students.
- (80 - 60) Comes to class prepared; usually participates in

classroom activities, presentations, and clean-up. Demonstrates satisfactory completion of in-class assignments. Must have above average attendance, a positive attitude, and demonstrate respect for instructor and fellow students.

- (60 - 40) Usually comes to class prepared; occasionally participates in classroom activities, presentations, and clean-up. Completes most in-class assignments. Has average attendance, a positive attitude, and demonstrates respect for instructor and fellow students.
- (40 - 20) Occasionally comes to class prepared; reluctantly participates in class activities. Occasionally completes in-class assignments. Has below average attendance, uncooperative attitude, and demonstrates lack of respect for instructor and fellow students.
- (20 - 0) Seldom comes to class prepared; uncooperative and disruptive to class discussions or other learning activities. Has poor attendance and shows disrespect for instructor and fellow students. Avoids class clean-up and/or has negative attitude.