

**NORTHEASTERN TECHNICAL COLLEGE
COURSE OUTLINE**

COURSE:	PREFIX NO.	EFFECTIVE DATE	NEXT REVIEW DATE		
MTT	254	FALL 2010	FALL 2011		
TITLE	CREDITS	CONTACTS			
		CLASS	LAB	TOTAL	
CNC PROGRAMMING I	3	2	3	3	

PREREQUISITES: MTT 251 OR MTT 253

DESCRIPTION:

Level I: This course is a study of CNC Programming including machine language and computer-assisted programming.

Level II: This course covers creating programs for CNC machines, using computers.

TEXTBOOK(S) OR ALTERNATIVE:

Machine Manuals and 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 must attend 90% of classes.

Tardies: Three tardies will constitute one absence.

Projects (Appearance and Tolerance)

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 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:

WEEK 1: Maintaining system disk.

WEEK 2: Creating the geometry and programs for simple shapes.

WEEK 3: Creating the geometry and programs for simple shapes.

WEEK 4: Creating the geometry and programs for simple shapes.

WEEK 5: Creating the geometry and programs for simple shapes.

WEEK 6: Creating tool files.

WEEK 7: Creating the geometry and programs for complex shapes.

WEEK 8: Creating the geometry and programs for complex shapes.

WEEK 9: Creating the geometry and programs for complex shapes.

WEEK 10: Creating the geometry and programs for complex shapes.

WEEK 11: Inserting and editing programs.

WEEK 12: Inserting and editing programs.

WEEK 13: Programming canned cycles.

WEEK 14: Programming canned cycles.

WEEK 15: Programming canned cycles.

OBJECTIVES/STUDENT LEARNING OUTCOMES OF COURSE:

1. The student will demonstrate the ability to maintain system disk, such as formatting, copying, and properly handling and

storing.

2. The student will demonstrate the ability to create simple geometrical shapes.
3. The student will demonstrate the ability to create simple part programs.
4. The student will demonstrate the ability to create too files.
5. The student will demonstrate the ability to create complex geometrical shapes.
6. The student will demonstrate the ability to create complex part programs.
7. The student will demonstrate the ability to insert programs.
8. The student will demonstrate the ability to edit programs.
9. The student will demonstrate the ability to program canned cycles.

INSTRUCTIONAL METHODS TO COMPLETE STUDENT OBJECTIVES:

Lecture

Machine Demonstrations

Hands on experience in lab

EVALUATIVE METHODS TO APPRAISE STUDENT OBJECTIVES:

Observation of lab work

Quality of parts produced

Quantity of parts and programs run

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 classroom 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 a negative attitude.