

**NORTHEASTERN TECHNICAL COLLEGE
COURSE OUTLINE**

COURSE:	PREFIX NO.	EFFECTIVE DATE	NEXT REVIEW DATE		
MTT	242	FALL 2000	FALL 2002		
TITLE:	CREDITS	CONTACTS			
		CLASS	LAB	TOTAL	
JIGS AND FIXTURES II	2	0	6	2	
<u>PREREQUISITES:</u> MTT 241					

DESCRIPTION:

LEVEL I: This course includes the theory necessary to design a complex jig or fixture for piece part production.

LEVEL II: In this course the student will make a working jig or fixture, and produce piece parts that will meet blueprint specifications.

TEXTBOOK(S) OR ALTERNATIVE:

Jig & Fixture Design

MATERIALS (specifying those to be purchased by student):

Safety glasses

COLLATERAL READING:

Machinery's Handbook 24th Edition
The Machinist Ready Reference

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

Attendance: The student must attend 90% of classes.

Tardies: Three tardies will constitute one absence.

Assignments: The student's grade will be determined by the following:

Quality of project (Appearance and Tolerance)	- 60%
Lab work habits	- 20%
Care of machines and tools	- 20%

Percentages based on all projects being completed.

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 outline of the disciplinary action that may result therefrom.

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

Examples of jigs and fixtures

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

The student will perform the sequence of operations required for each project based on the availability of machines.

OBJECTIVES OF COURSE:

1. The student should be able to construct location points and surfaces to suit piece parts and jigs and fixtures.
2. The student should be able to construct clamping and holding devices to suit jigs and fixtures and piece parts.
3. The student should be able to construct other jigs and fixture components, such as bushings, set blocks, feet, etc.
4. The student should be able to construct and assemble a complete jig or fixture to perform an operation in the production cycle of a piece part, using dimensions given on the piece part print.
5. The student should set up and operate the jig and fixture and produce acceptable piece parts.

INSTRUCTIONAL METHODS TO COMPLETE OBJECTIVES:

Machine shop lab work

EVALUATIVE METHODS TO APPRAISE OBJECTIVES:

1. Lab work results
2. Observation of care of equipment
3. Observation of work habits

GRADING:

100 - 91 = A
90 - 81 = B
80 - 71 = C
70 - 61 = D
60 -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 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.