

**NORTHEASTERN TECHNICAL COLLEGE
COURSE OUTLINE**

| COURSE: | PREFIX NO. | EFFECTIVE DATE | NEXT REVIEW DATE | | |
|------------------------------|-------------------|-----------------------|-------------------------|------------|--------------|
| MTT | 101 | SPRING 2001 | SPRING 2002 | | |
| TITLE: | | CREDITS | CONTACTS | | |
| INTRODUCTION TO MACHINE TOOL | | 2 | CLASS | LAB | TOTAL |
| | | | 1 | 3 | 2 |

PREREQUISITES: NONE

DESCRIPTION: LEVEL I: This course covers the basics in measuring tools, layout tools, bench tools and basic operations of lathes, mills and drill presses.

LEVEL II: The course covers basic operation and theory of the machine shop. In the course the student will demonstrate the ability to use the machines in the shop to make projects to the print. The student will also be tested on the theory part of machining process.

TEXTBOOK(S) OR ALTERNATIVE:

Machining Fundamentals, John R. Walker

MATERIALS (specifying those to be purchased by student):

Safety glasses, 6 inch steel rule tool bit and Allen wrench set

COLLATERAL READING: The Machinist Ready Reference Machinery's Handbook 24th Edition

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, etc.):
Refer to the Department Rules

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.

Tests From Text:

| | | |
|----------------|---------------------------|--------------------------|
| | Shop Safety | Pages: 23-28 |
| Test 1: | Fraction & Decimals | |
| Test 2: | Systems of Measurements | Pages: 55-80 |
| Test 3: | Hand Tools | Pages: 91-126 |
| Test 4: | Layout | Pages: 81-90 |
| Test 5: | Sawing Machine | Pages: 191-200 & 383-398 |
| Test 6: | Drilling Machines | Pages: 153-182 |
| Test 7: | Turning Machines | Pages: 201-240 |
| Test 8: | Vertical Milling Machines | Pages: 285-316 |

Make-up tests will be given in the Success Center at the convenience of the instructor. The test will cover the same content but will be different questions. If tests are not taken on test day 25 points will be deducted from the grade of the test taken late unless prior arrangements have been made with the instructor.

OBJECTIVES OF COURSE: The student will demonstrate the ability to use the machines in the shop to make projects to the print. The student will also be tested on the theory part of machining process.

INSTRUCTIONAL METHODS TO COMPLETE OBJECTIVES: Classroom lecture, reading assignments, homework assignments, demonstrations and examples in the machine tool lab.

EVALUATIVE METHODS TO APPRAISE OBJECTIVES:

| | |
|------------|--------|
| Test | 33 1/3 |
| Practical | 33 1/3 |
| Final Exam | 33 1/3 |

GRADING:

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

DEPARTMENT RULES:

1. The student must attend 90% of classes. The student will be dropped from the class after 10% has been reached. Three tardies constitutes one absence. If you are late more than 15 minutes it will be counted as one absence.
2. Lab clean-up date is _____. All students have to attend or receive an "I" grade.
3. Daily lab clean-up and machine tool repair are course requirements.
4. There is no extra credit given for lab clean-up or machine tool repair or additional work.
5. Cheating is not permitted; if caught you will be dropped from the course.
6. Dress must be appropriate for machine tool work and not for sports events. If dress is not appropriate the student will not be allowed to work in the lab and will be marked absent. **(No Shorts)**
7. Eye safety glasses are to be worn at all times in the lab. The student will be warned twice about the wearing of the glasses on the 3rd time will be asked to leave the class and will be marked absent that day and every day that he or she is told about the glasses.