COURSE: MTT
PREFIX NO. 124
EFFECTIVE DATE SPRING 2015
NEXT REVIEW DATE SPRING 2017

TITLE: MACHINE TOOL PRACTICE II
CREDITS 4
CONTACTS CLASS - LAB - TOTAL 12 4

PREREQUISITES: MTT 123

DESCRIPTION: LEVEL I: This course covers the practical application of the principles in Machine Tool Theory II.

TEXTBOOK(S) OR ALTERNATIVE: Precision Machining Technology, Second edition By: Peter Hoffman

MATERIALS (specifying those to be purchased by student): Safety glasses, Adjustable wrench, Allen wrenches

COLLATERAL READING: Machinist Ready Reference
Machinery's Handbook 27th Edition

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, etc.):
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 Dean for Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Dean 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 on the Cheraw campus. During the first week of class, the instructor will issue a reminder to wear the ID. This reminder is a warning. After the first week of class, instructors are required to dismiss students without ID from class. The student may purchase a new or temporary ID from Student Services for a fee. The student may then return to class at the instructor’s discretion, or may be counted absent.

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. The instructor will announce lab clean-up date. 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, open-toed shoes, or baggy pants!!)

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.

RESOURCES (audio-visual materials, tools/equipment):

Machine shop lab

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.

STUDENT LEARNING OUTCOMES/OBJECTIVES OF COURSE:

In this course the student will use machine attachments to perform advanced operations on machines such as lathes, mills and grinders to make parts to blueprint specifications. To successfully complete this course the student will make the following projects to blueprint specifications.

PROJECTS:

All projects are to be completed by a date given by instructor. Projects are to be completed at Northeastern Technical College during the allocated lab times only. There are a total of five projects required in MTT-124:

(1) Boring Head Exercise
(2) Left and Right Threaded Rod Project
(3) Lug Block
(4) Bench Block
(5) Precision Vise

INSTRUCTIONAL METHODS TO COMPLETE OBJECTIVES:

Demonstrations on machine tools

EVALUATIVE METHODS TO APPRAISE OBJECTIVES:

1. Inspection of parts
2. Observation of work and safety habits
3. Observation of care of machines and tools
4. Class participation
5. Extra work (written or practical) may be assigned by the instructor and counted as a grade.

GRADING:

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\begin{align*}
100 - 93 &= A \\
92 - 85 &= B \\
84 - 77 &= C \\
76 - 69 &= D \\
68 - BELOW &= F \\
\end{align*}
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MACHINE VISE
25% OF TOTAL GRADE

1. FOLLOWING DRAWING (DIMENSIONS AND TOLERANCES) \\
2. MACHINING FINISHES \\
3. MECHANISM OR TOOL OPERATES SATISFACTORILY \\
4. GENERAL WORKMANSHIP

TOTAL GRADE

65% OF GRADE

BORING HEAD \\
LUG BLOCK \\
RH LH THREAD \\
BENCHBLOCK

PARTICIPATION 10%
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 on in-class assignments and has good attendance. Must demonstrate respect to instructor and fellow students.

(80-60) Comes to class prepared; usually participates in classroom activities, presentation, 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, positive 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 instructors and fellow students. Avoid class clean up and/or has negative attitude.