

COURSE INFORMATION

COURSE PREFIX/NO: **MTT 231**
COURSE TITLE: **Tool and Diemaking I**
LEC HRS/WK: 4.0
LAB HRS/WK: 12.0
CREDIT HRS/SEMESTER: 8.0

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION:

This course is a continuation of MTT 221. In a simulated industrial tool and die facility the student will be taught to use the tool and die theory to construct more complex tooling with minimum assistance. Dies such as cutting or non-cutting and/or advanced tooling will be constructed and put into trial operation. The accuracy of the dies or tooling will be evaluated by the piece parts produced and the quality of workmanship demonstrated. Upon successful completion of this course the student should be able to demonstrate the ability to design and/or manufacture a selected advanced tool using the theory of die and jug fixture construction, should be able to use machine efficiently, safely and explain machine tool preventive maintenance and die maintenance.

COURSE COMPETENCIES:

Upon successful completion of this course, the student should be competent to perform the following tasks:

- machine die components -
- assemble die components
- set up press and prove out die set

MINIMAL STANDARDS/PERFORMANCE OBJECTIVES:

- A. Given lectures and materials, the student will machine and assemble die components and set up the press and prove out the die set for his personal die.
- B. Given guidelines of acceptable work behavior by the instructor, the student will exhibit proper work attitudes at all times as identified in the guidelines. See instructor for specific details.

COURSE REQUIREMENTS:

ATTENDANCE

The student should adhere to the attendance policy set forth in the York Technical College Student Handbook.

"Students must attend 80% of the hours assigned the class for a quarter to receive credit for the course." In case a student does miss a class he/she is responsible for obtaining the material that was covered during the absence.

If a student is aware that he/she will miss class, then the student should notify the instructor at the earliest possible date.

If a student misses a test because of illness or urgent emergency, then he/she should do the following:

Notify the instructor prior to the class period, or at the earliest possible date. At that time a new date for a make-up test will be scheduled.

Student with unexcused absences during test time will be allowed to take a make-up test at the instructor's discretion.

The student has the burden of making sure that some arrangement was made with the instructor to take a make-up test.

ACADEMIC HONESTY

"York Technical College adheres to the South Carolina TECH Student Code, approved by the State Board for Technical and Comprehensive Education on March 13, 1974 (revised last April 25, 1984). Copies of this code are available in the Library and from Student Services. Any student caught cheating or involved in any other academic dishonesty will be given a grade of zero and will be subject to further disciplinary action".

PARTICIPATION IN CLASS DISCUSSION

COMPLETING ASSIGNED READING, LAB DEMONSTRATIONS, AND TESTS

CLASSROOM AND SHOP PROCEDURES

- Roll will be called at the beginning of each class.
- Students are responsible for assigned reading on steel and its alloys and heat treating.
- Tools and equipment that are used will be returned to their proper place.
- At the end of each class the student will be responsible for cleaning his/her work area. Brushes, brooms, and mops will be provided for this purpose.
- Shoes and safety glass must be provided by the student.

LAB REQUIREMENTS

During the lab, students may work in pairs or individually. The instructor must see the completed project. A performance test will be given to ascertain if the student can successfully make the project.

EVALUATION STRATEGIES/GRADING:

Students will be expected to complete two written tests, four lab projects/reports and assigned homework questions. Minimum score of 70% will be required on each test, project, reports and homework. Students who score below 70% may request a retest, at instructor's discretion. Maximum retest score will be 80%.

The grading scale is as follows:

Grade Points

- A 90 - 100
- B 80 - 89
- C 70 - 79
- D 60 - 69
- F 00 – 59

Evaluation Method

The final grade for MTT 231 will be as follows:

- Tests 20%
- Projects/homework 50%
- Work attitude 30%

ENTRY LEVEL SKILLS:

Student should have machining skills or permission of instructor.

PREREQUISITES: MTT 221

CO-REQUISITES: None

TOPIC/CONTENT OUTLINE:

- A. Press Types and Styles
- B. Feeding Devices
- C. Material Handling Devices
- D. Safety Devices
- E. Ejecting Devices

METHODS OF INSTRUCTION

Classroom instruction will include lectures and discussions.

Alternate instructions: If extra help is desired by the student, he/she should:

1. Ask the instructor for additional help in the shop.
2. Review units in the textbook.

Disabilities Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.