

# MACHINE TOOL (MT)

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**MT101 Machine Tool Processes I** 3 credits (1 lec, 4 lec lab hrs/wk)

Prerequisite(s): ( WLD101 )

Introduce machine tool technology including an overview of manual lathes and milling machines, drill presses and grinders and basic measurements. The function, basic operation and set-up will be studied.

This course may be taken 1 time for credit.

Course classification: CTE

**MT102 Machine Tool Processes II** 3 credits (1 lec, 4 lec lab hrs/wk)

Prerequisite(s): ( MT101 )

This second course in this sequence continues the study of machine tool operations and set-up, with emphasis on the vertical milling machines, tool sharpening by hand, and advanced lathe set-ups such as threading and tapering. Machine theory and precision measurement is studied and applied. Students gain sound understanding of why machine tools are the basis of manufacturing.

This course may be taken 1 time for credit.

Course classification: CTE

**MT103 Machine Tool Processes III** 3 credits (1 lec, 4 lec lab hrs/wk)

Prerequisite(s): ( MT101 and MT102 )

In this third course of the basic sequence, the student will study the operation and set-up of the tool and cutter, grinder, the surface grinder and the horizontal bandsaw. Provides students with an opportunity to apply the skills developed in the two previous MT courses. Students will have the necessary understanding of why machine tools are the basis of manufacturing. More advanced machine set-ups will be studied and applied. The students will gain basic skills in the area of computer usage in the machine shop.

This course may be taken 1 time for credit.

Course classification: CTE

**MT9228 Machine Tool Workshop** 0.25-3 credits (8 lab hrs/wk/cr)

This course emphasizes operation and set-ups of the lathe, milling machines, grinders and other machines in the shop. Student projects provide further practices in skills for tool grinding, turning, boring, and milling operations. Special tools and materials to be provided by the student. The student will plan projects and machine the parts according to specifications.

This course may be taken 9 times for credit.

Course classification: CTE