

Syllabus for Machine Tool Technology Application

Instructor: Guy Hart

Prerequisite: None

Time Requirement: Full year

Credits: 1 elective credit

Textbook: Technology of Machine Tools, Krat-Oswald, Glencoe, 3rd Edition.

Description: This course will teach the basic concepts of the metal machine industry that both the technical and non-technical student can understand. Included are lecture and demonstrations with a focus on hands-on learning that emphasizes manual machines (lathe, mill, drill press, band saw, and surface grinding). The class also covers different work holding devices, set-up methods, calculations for speeds and feeds, threads, basic trigonometric functions, and blue print reading. CNC machining in basic G&M code and conversational programming will be presented. Instruction in the use and care of precision measuring tools as well as machining a variety of materials common in the metal machining industry are covered as well.

Grading:

- Formative (10% of quarter grade): daily lab work and shop maintenance
- Summative (90% of quarter grade): Finished projects, quizzes and tests.

Attendance: Students are expected to call in when absent or notify the instructor in advance when missing class. This is a requirement to making up missed lab time.