



MTT 1350

Division: Career and Technical Education

Department: Industrial Technology

Course: MTT 1350

Title: Related Machine Shop Practice

Catalog Description:

This course is for students with majors other than Machine Tool Technology. It presents general information and covers only basic machine tool operation, principally on the engine lathe. The course includes turning, boring, drill bit sharpening, tool bit grinding, taper cutting, facing, hole formation, threading (both internal and external), and simple tool design.

General Education Requirements: N/A

Semesters Offered: TBA

Credit/Time Requirement: Credit: 2; Lecture: 0; Lab: 6

Clock/Hour Requirements: 90

Offered for Non-Credit: Yes

Prerequisites: N/A

Corequisites: N/A

Justification:

This course teaches students the fundamentals approved by our program advisory committee.

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

- duplicate or manufacture a new part from the original part or print
- explain how their major or trade area is or will be affected by machining.

Content:

Course objectives will be accomplished by providing students with learning experiences in the following subject areas:

- shop safety
- lathe tool performance
- related theory

- straight turning
- shoulder turning
- taper turning
- threading (external)
- threading (internal)
- thread chasing
- drill grinding
- tapping (power and hand)
- steady rest principles.

General Education Outcomes:

Applied Education Outcomes:

1) Students will acquire entry-level skills specific to and appropriate for employment in their chosen field of study.

Students will learn the theory of Machining Fundamentals and will learn hands on in the lab with required projects to prepare them for entry level jobs on conventional machines.

3) Students will demonstrate safe practices and awareness of potential hazards in their field of expertise.

Students will participate in a weekly safety meeting where they will take their turn as safety chair. Students will demonstrate safety in the lab of those comparable to industry standards.

Key Performance Indicators:

Student Learning Outcomes will be assessed by two or more of the following Key Performance Indicators:

- safety practices while working in the shop
- written tests
- quizzes
- assignments
- competency in subsequent courses and on projects.

Representative Text and/or Supplies:

- Walker, John R., *Machining Fundamentals*, current edition, Goodhart/Willcox Company Inc.

Optimum Class Size: 10

Maximum Class Size: 20

Signatures:

I hereby submit this course syllabus:

Alan Hart, AAS, Instructor

I hereby find this course consistent with the goals and resources of the Industrial Technology Department:

Alan Hart, AAS, Instructor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)