Course Information Form (CIF)

Course Code: MFT 132

Course Title: Intermediate Machine Processes

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 48.0503
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-2-3
Credit Hour Distribution:

Lecture: 2	Lab: 2	Clinical: 0	**Total: 3**

General Course Information

Catalog Description

Setup and operational procedures of mills, grinders, and lathes. Cutting speeds, feed rates, tool geometry for various types of alloy steels.

General Course Objectives

Students will be able to measure with a variety of measuring equipment, select the proper material and tooling, and safely perform basic machining operations on the lathe and vertical milling machine.

Minimum Placement Levels

English	Reading	Math
Placement into ENG 098	Placement into CCS 098	Placement into MAT 059

Prerequisites

Credit in MFT 130

Methods of Evaluation

Students will be given 3 one-hour exams, 4 quizzes, 3 lab projects, and 1 final exam.

Instructional Materials and Additional Supplies

Modern Tool Practices, by Kibbe, Neely, Meyer and White. Prentice Hall. Current Edition.

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.
- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Course Introduction	1. State the course objectives and grading system by reading the course sheet and asking the instructor for explanations.	1	0	0
Safety	1. Demonstrate proper safety procedures while operating in a machine processes area appropriate to the second course in Machine Processes.	2	2	0
Blueprints	1. Read and interpret blueprints to standard tolerances.	3	6	0
Intermediate Machine Processes: a) Grinding, b) Facing, c) Turning, d) Thread Cutting, e) Knurling, f) Drilling, g) Taping, h) Boring, i) Grooving, j) Tapering, k) Speed and Feed Adjustment, l) Mill Flat Surfaces, m) Mill Square Surfaces, n) Make Slots, and o) Chamfer	1. Perform the listed simple operations to standard tolerances up to +/- .002 using the mill, lathe, and drill press.	18	10	0
Machine Setup	1. Set up machine for simple projects and make the necessary adjustments to meet the print requirements. 2. Safety clamp the work piece to the fixtures, bed, check, etc.	6	12	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0