

Washtenaw Community College Comprehensive Report

MTT 105 Machine Tool Skills Laboratory Effective Term: Spring/Summer 2017

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: Industrial Technology

Discipline: Machine Tool Technology

Course Number: 105

Org Number: 14440

Full Course Title: Machine Tool Skills Laboratory

Transcript Title: Machine Tool Skills Laboratory

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: New Course

Change Information:

Consultation with all departments affected by this course is required.

Course description

Pre-requisite, co-requisite, or enrollment restrictions

Outcomes/Assessment

Objectives/Evaluation

Rationale: Course conditionally approved, requesting full approval.

Proposed Start Semester: Spring/Summer 2017

Course Description: In this course, students enrolled in other courses are given an opportunity to use the machine shop with faculty instruction. Many classes on campus require students to build or modify parts. For example, classes such as robotics require students to design and build working manufacturing cells. Lecture, along with demonstration, will be used to make students aware of various machine tool setups. Students who want to maintain their machine tool skills can select from dozens of projects available.

Course Credit Hours

Variable hours: No

Credits: 2

Lecture Hours: Instructor: 15 **Student:** 15

Lab: Instructor: 30 **Student:** 30

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

Prerequisite

MTT 102 or MTT 111, minimum grade "C"

General Education

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Create a project artifact using one or more of the machine tools.

Assessment 1

Assessment Tool: Project

Assessment Date: Winter 2017

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of the students will score 75% or higher.

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Make orthographic drawing of part(s) to be manufactured.
2. Add necessary dimensions and tolerances for part(s) before cutting.
3. Identify machining processes needed to manufacture part(s).
4. Create a sequence sheet for machining processes.
5. Create a time chart to go along with manufacturing processes.
6. Apply safe shop practices to manufacture part(s).
7. Inspect part per dimensions and tolerances created in development process.
8. Create an inspection report.
9. Identify changes to process and part design given knowledge gained in experience.

New Resources for Course

Course Textbooks/Resources

Textbooks

Manuals

Periodicals

Software

Equipment/Facilities

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Thomas Penird</i>	<i>Faculty Preparer</i>	<i>Aug 25, 2016</i>
Department Chair/Area Director: <i>Thomas Penird</i>	<i>Recommend Approval</i>	<i>Aug 27, 2016</i>
Dean: <i>Brandon Tucker</i>	<i>Recommend Approval</i>	<i>Oct 03, 2016</i>
Curriculum Committee Chair: <i>David Wooten</i>	<i>Recommend Approval</i>	<i>Dec 13, 2016</i>
Assessment Committee Chair: <i>Michelle Garey</i>	<i>Recommend Approval</i>	<i>Dec 15, 2016</i>
Vice President for Instruction: <i>Bill Abernethy</i>	<i>Approve</i>	<i>Dec 20, 2016</i>