

## Washtenaw Community College Comprehensive Report

### MTT 274 MTT Co-op Education II Effective Term: Fall 2023

#### Course Cover

**College:** Advanced Technologies and Public Service Careers

**Division:** Advanced Technologies and Public Service Careers

**Department:** Advanced Manufacturing

**Discipline:** Machine Tool Technology

**Course Number:** 274

**Org Number:** 14440

**Full Course Title:** MTT Co-op Education II

**Transcript Title:** MTT Co-op II

**Is Consultation with other department(s) required:** No

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

**Reason for Submission:** Inactivation

**Change Information:**

**Consultation with all departments affected by this course is required.**

**Rationale:** Program discontinued

**Proposed Start Semester:** Fall 2023

**Course Description:** Students are placed in an approved work experience to gain skills and knowledge offered by the employer. Together with the instructor and the employer, students set up work assignments and learning objectives to connect classroom learning with career-related work experiences.

#### Course Credit Hours

**Variable hours:** Yes

**Credits:** 1 – 3

**Lecture Hours: Instructor: 0 Student: 0**

**Lab: Instructor: 0 Student: 0**

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

**Other: Instructor: 120 to 360 Student: 120 to 360**

**Total Contact Hours: Instructor: 120 to 360 Student: 120 to 360**

**Repeatable for Credit:** YES

**Number of times the course can be repeated for credit:** 1

**Maximum Hours:** 3

**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 174

**General Education****Request Course Transfer****Proposed For:****Student Learning Outcomes****Course Objectives**

1. Student will complete with instructor, placement office and employer the following forms: student eligibility form, student agreement, work agreement, student learning objectives/assignments, student evaluation and student self-assessment report on co-op experience.
2. Student will complete the co-op work experience according to guidelines.
3. Student will maintain a weekly log of duties.
4. Student will meet with faculty advisor at times individually arranged at the beginning of the work assignment.
5. Student will complete a final report on the co-op experience including the following: description of the assignment, summary of skills and abilities used on the job, ways in which course work was integrated into job tasks, and assessment of how well the objectives established at the beginning of the assignment were achieved.

**New Resources for Course****Course Textbooks/Resources**

Textbooks  
Manuals  
Periodicals  
Software

**Equipment/Facilities**

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Allan Coleman</i>	<i>Faculty Preparer</i>	<i>Jan 06, 2023</i>
<b>Department Chair/Area Director:</b> <i>Allan Coleman</i>	<i>Recommend Approval</i>	<i>Jan 06, 2023</i>
<b>Dean:</b> <i>Jimmie Baber</i>	<i>Recommend Approval</i>	<i>Jan 09, 2023</i>
<b>Curriculum Committee Chair:</b> <i>Randy Van Wagnen</i>	<i>Reviewed</i>	<i>Feb 08, 2023</i>
<b>Assessment Committee Chair:</b>		
<b>Vice President for Instruction:</b> <i>Victor Vega</i>	<i>Approve</i>	<i>Feb 09, 2023</i>

**WASHTENAW COMMUNITY COLLEGE  
COURSE SYLLABUS**

Department: MACHINE TOOL TECHNOLOGY

New Course

Course Number: MTT 274

Existing Course

Course Title: CoOp Education II Machine Tool Technology

Credit Hours: Varies

Prerequisites: Consent of instructor and MTT 174

Corequisites: MTT 174 can be a prerequisite or a corequisite

Catalog Course Description: In this course, the student gains skills from a new experience in an approved, compensated, industry-related position.

Together with the instructor, the employer and CoOp Placement Office, the student determines work assignments and learning objectives to connect classroom learning with career-related work experience. This is the second of two CoOp courses.

Contact Hours per week in a lecture/recitation setting  \_\_\_\_\_

Contact Hours per week in a laboratory setting  \_\_\_\_\_

Contact Hours per week in a clinical setting  \_\_\_\_\_

Contact Hours per week in a work setting  8-24 (variable)

Total Contact Hours (per semester): VARIES Minimum 120 hrs - 1 credit

240 hrs - 2 credits

360 hrs - 3 credits

Course Justification: (Check all that apply.)

program specialty

college transfer

support course

division core

industry training

personal development

core curriculum

Prepared By \_\_\_\_\_  
(Faculty Member)

Date \_\_\_\_\_

Reviewed By GEORGE AGIN  
(Department Chair for Department)

Date 8/29/94

Approved By R.R. Butcher  
(Dean)

Date 8/29/94

**COURSE OBJECTIVES:** Use student outcome based language and format. (Example: The student will define and state the cause of the six major respiratory diseases.) List as many as needed.

Objective #1. Student will complete with instructor, placement office, and employer the following forms: student eligibility form, student agreement, work agreement, student learning objectives/assignments, student evaluation, and student self-assessment report on CO-OP experience.

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Objective #2. Student will complete the CO-OP work experience according to guidelines.

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Objective #3. Student will maintain a weekly log of duties.

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Objective #4. Student will meet with faculty advisor at times individually arranged at the beginning of the work assignment.

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Objective #5. Student will complete a final report on the CO-OP experience including the following: description of the assignment, summary of skills and abilities used on the job, ways in which course work was integrated into job tasks, and assessment of how well the objectives established at the beginning of the assignment were achieved.

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## MAJOR INSTRUCTIONAL UNITS: (List as many as needed)

1. Complete all required forms.

2. CO-OP work experience.

3. Maintain weekly log of duties.

4. Meet with faculty advisor.

5. Complete a final report.

## INSTRUCTIONAL METHODS:

1. On-site work experience.

2. Conferences with advising instructor.

**SUGGESTED EVALUATION CRITERIA:** (which may be appropriate to grade student.)

<input type="checkbox"/> Class Attendance _____	<input type="checkbox"/> Quizzes _____
<input type="checkbox"/> Class Discussion _____	<input type="checkbox"/> Tests _____
<input type="checkbox"/> Papers _____	<input type="checkbox"/> Midterm _____
<input type="checkbox"/> Portfolio _____	<input type="checkbox"/> Final Exam _____
<input checked="" type="checkbox"/> Project <u>Work Log</u> _____	<input type="checkbox"/> Independent Study _____
<input checked="" type="checkbox"/> Reports _____	<input type="checkbox"/> Homework _____
<input checked="" type="checkbox"/> Clinical/Work Performance _____	<input type="checkbox"/> Other _____

**ATTENDANCE REQUIREMENTS:** (For Certification or nonevaluative purposes.)

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**SPECIAL EQUIPMENT/FACILITY AND RESOURCES REQUIREMENTS:** (Check the appropriate boxes and describe as needed.)

<input type="checkbox"/> Lab Equipment _____	<input type="checkbox"/> Testing in Testing Center _____
<input type="checkbox"/> LRC Reserves _____	<input type="checkbox"/> Student Regional Competitions _____
<input type="checkbox"/> Computers _____	<input checked="" type="checkbox"/> Off Campus Sites <u>Work Site</u> _____
<input type="checkbox"/> Field Trips _____	<input type="checkbox"/> Other _____

(Attach an additional page is necessary.)

**PRIMARY TEXT:** (Specify if text is not used.)

1. Title: NONE \_\_\_\_\_

Author: \_\_\_\_\_ Copyright Yr: \_\_\_\_\_

Publisher: \_\_\_\_\_ Est. Cost: \_\_\_\_\_

(Attach an additional page if more than one primary text is used.)

**RECOMMENDED SUPPLEMENTAL TEXTS or COURSE PACKS:**

1. Title: NONE  
 Author: \_\_\_\_\_ Copyright Yr: \_\_\_\_\_  
 Publisher: \_\_\_\_\_ Est. Cost: \_\_\_\_\_
2. Title: \_\_\_\_\_  
 Author: \_\_\_\_\_ Copyright Yr: \_\_\_\_\_  
 Publisher: \_\_\_\_\_ Est. Cost: \_\_\_\_\_

(Attach an additional page if necessary.)

**SUPPLIES, other than pen, pencil, paper, or textbooks, STUDENT WILL HAVE TO OWN OR ACQUIRE FOR COURSE, SUCH AS: calculators, uniforms, tools, and software, etc.**

<u>Description</u>	<u>Cost Estimate</u>
<u>This will depend on the student's work placement.</u>	_____
_____	_____
_____	_____

**REFERENCE MATERIALS STUDENTS MAY BE REFERRED TO SUCH, AS: journals, books, manuals, maps, etc.**

<u>This will depend on the student's work placement.</u>	_____
_____	_____
_____	_____
_____	_____

**AUDIO/VISUAL AND COMPUTER MATERIALS AVAILABLE FOR USE SUCH AS: films, video tapes, slides, audio tapes, software, etc.**

<u>Title</u>	<u>Source</u>
_____	_____
_____	_____
_____	_____

WASHTENAW COMMUNITY COLLEGE  
COURSE HANDOUTS

The following information compatible with the Official Course Syllabus must be distributed to students at the first meeting of each course:

1. Course name:
2. Course number:
3. Course description:
4. Course objectives:
5. Required text(s) and/or supplies:
6. Criteria for evaluation:
7. Requirements (Attendance, Special, or Other):
8. Hours/week required out of class:
9. Additional information:
10. A tentative schedule by week or class meeting of topics to be covered:

Each Instructor may design his/her own course handout within these guidelines.



## COURSE SUMMARY

**COURSE TITLE:** CO-OP Education II

**COURSE NUMBER:** MTT 274

**CREDITS:** Varies: 1 to 3

**PREREQUISITE:** MTT 174; MTT 174 can also be a corequisite.

### DESCRIPTION:

In this course the student gains from a new experience in an approved, compensated, industry-related position. Together with the instructor, the employer, and the CO-OP Placement Office, the student determines work assignments and learning objectives to connect classroom learning with career-related work experience. This is the second of two CO-OP courses.

### COURSE OBJECTIVES:

During this course, the student will:

1. Complete with instructor, placement office, and employer the following forms: student eligibility form, student agreement, work agreement, student learning objectives/assignments, student evaluation, and student self-assessment report on CO-OP experience.
2. Complete the CO-OP work experience according to guidelines.
3. Maintain a weekly log of duties.
4. Meet with instructor according to individually determined schedule.
5. Complete a final report on the CO-OP experience including the following: description of the assignment, summary of skills and abilities used on the job, ways in which course work was integrated into job tasks, and assessment of how well the objectives established at the beginning of the assignment were achieved.

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**MTT 203: Machine Tool Operations and Set-Up II 4 Credits**

Prerequisites: MTT 202

Corequisites: None

45 lecture, 45 lab, 0 clinical, 0 other, 90 total contact hours

Fulfills Core Elements: None

This course is a continuation of MTT 202. The study of materials will be more advanced along with the techniques of measurement and blueprint reading. The technology of metal cutting, dimensional metrology, and special processes will also be introduced. The student's "hands-on" experience will include multiple lead threading, external grinding, E.D.M. machining, using the C.M.M., and producing a helical gear. Students who have experience equivalent to MTT 202 may contact the instructor for permission to waive the pre-requisite.

**MTT 210: Machine Tool Technology 4 Credits**

Prerequisites: MTT 203

Corequisites: None

45 lecture, 45 lab, 0 clinical, 0 other, 90 total contact hours

Fulfills Core Elements: None

This course is a continuation of MTT 203. It is also the last and most advanced machine tool technology course. Therefore, the most advanced information on materials, blueprint reading, measurement, metal cutting technology, and special processes will be covered. Along with that, the student will prepare a resume that will include his/her newly acquired proficiencies and well thought-out goals. The student's "hands-on" experience will include acme threading, internal grinding, E.D.M. machining, using the C.M.M., and producing a pair of bevel gears. This course was previously MTT 201. Students who have experience equivalent to MTT 203 may contact the instructor for permission to waive the pre-requisite.

**MTT 274: MTT Co-op Education II 1-3 Credits**

Prerequisites: MTT 174 and Consent required

Corequisites: None

0 lecture, 0 lab, 0 clinical, 120 other, 120 total contact hours

Fulfills Core Elements: None

Students are placed in an approved work experience to gain skills and knowledge offered by the employer. Together with the instructor and the employer, students set up work assignments and learning objectives to connect classroom learning with career-related work experiences.

~~Instructor consent is required to register for this course.~~

**Mathematics**

**MTH**

**MTH 010: Arithmetic 3 Credits**

Prerequisites: None

Corequisites: None

45 lecture, 0 lab, 0 clinical, 0 other, 45 total contact hours

Fulfills Core Elements: None

This course is for students having difficulty with arithmetic. Topics include whole numbers, common fractions, decimal fractions, percents, and applications of arithmetic. Hand calculations are emphasized, however, work with calculators and computers is included. The course is offered only in an individualized format using a Satisfactory/Unsatisfactory grading system. This course may not be repeated for additional credit. Students are required to supply their own handheld calculators.

**MTH 011: Solving Equations 3 Credits**

Prerequisites: None

Corequisites: None

45 lecture, 0 lab, 0 clinical, 0 other, 45 total contact hours

Fulfills Core Elements: None

This course is for students having difficulty solving mathematical equations. Topics include: properties of real numbers, signed numbers, simplifying algebraic expressions, and solving simple equations. Work with computers is used to enhance the understanding of these concepts. The course is offered only in an individualized format using a Satisfactory/Unsatisfactory grading system. This course may not be repeated for additional credit. Students are required to supply their own handheld calculators.