

## Clackamas Community College

### Online Course/Outline Submission System

---

#### Section #1 General Course Information

**Department:** Manufacturing

**Submitter**

First Name: Mike

Last Name: Mattson

Phone: 3322

Email: mattsonm

---

**Course Prefix and Number:** IMT - 120

---

**# Credits:** 3

**Contact hours**

Lecture (# of hours):

Lec/lab (# of hours): 66

Lab (# of hours):

Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

---

**Course Title:** Industrial Machinery I

**Course Description:**

This course will introduce students to industrial machinery and power equipment with respect to industrial maintenance. Students will learn the fundamentals of electro-mechanical machinery repair, assembly and disassembly and how to work safely around mechanical equipment and power tools. Topics discussed will include hand and power tools, preventative maintenance, power transmission systems, fasteners and torque.

---

**Type of Course:** Career Technical Preparatory

**Reason for the new course:**

Ind Demand

Is this class challengeable?

**Yes**

Can this course be repeated for credit in a degree?

**No**

Is general education certification being sought at this time?

**No**

Does this course map to any general education outcome(s)?

**No**

Is this course part of an AAS or related certificate of completion?

**Yes**

**Name of degree(s) and/or certificate(s):** IMT

Are there prerequisites to this course?

**Yes**

**Pre-reqs:** MTH-050

**Have you consulted with the appropriate chair if the pre-req is in another program?**

**Yes (A 'Yes' certifies you have talked with the chair and have received approval.)\***

Are there corequisites to this course?

**No**

Are there any requirements or recommendations for students taken this course?

**No**

Are there similar courses existing in other programs or disciplines at CCC?

**No**

Will this class use library resources?

**Yes**

**Have you talked with a librarian regarding that impact?**

**No**

Is there any other potential impact on another department?

**No**

Does this course belong on the Related Instruction list?

**No**

GRADING METHOD:

A-F or Pass/No Pass

**Audit: Yes**

When do you plan to offer this course?

✓ **Winter**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

**No**

Will this course appear in the college catalog?

**Yes**

Will this course appear in the schedule?

**Yes**

Student Learning Outcomes:

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

1. properly use mechanical hand tools for assembly and disassembly of machinery,
2. troubleshoot and repair elementary mechanical drive components,
3. accurately interpret the Unified (US customary) and ISO thread systems to measure and identify threads,
4. identify, install and torque fasteners to standard specifications and repair damaged threads;
5. perform layout and assembly of devices crafted from a variety of industrial materials,
6. use fixed and portable power tools to safely and accurately fabricate components,
7. describe and specify power transmission system components including flexible belts, roller chains, bearing, gears and variable speed drives;
8. identify and apply common lubricants, gaskets and seals;
9. perform basic preventative maintenance based upon a written TPM program.

---

***This course does not include assessable General Education outcomes.***

---

Major Topic Outline:

1. Hand tool identification and use
2. Power tool operations

3. Thread systems and measurement
4. Threads and fasteners
5. Thread repair
6. Mechanical drive systems
7. Bearings and seals
8. Lubrication
9. Preventative maintenance planning and operation

Does the content of this class relate to job skills in any of the following areas:

- |                                      |           |
|--------------------------------------|-----------|
| 1. Increased energy efficiency       | <b>No</b> |
| 2. Produce renewable energy          | <b>No</b> |
| 3. Prevent environmental degradation | <b>No</b> |
| 4. Clean up natural environment      | <b>No</b> |
| 5. Supports green services           | <b>No</b> |

Percent of course: 0%

First term to be offered:

**Specify term:** 2017/WI

---