

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information**Department:** Manufacturing**Submitter**First Name: **Wes**Last Name: **Locke**Phone: **3321**Email: **wesl****Course Prefix and Number:** MFG - 210**# Credits:** 4**Contact hours**

Lecture (# of hours):

Lec/lab (# of hours): 88

Lab (# of hours):

Total course hours: 88

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: CAM Special Projects**Course Description:**

Allows students to integrate and improve CNC and CAD/CAM manufacturing skills. Students will be assigned a variety of hands-on projects based on their skill level and interest.

Type of Course: Career Technical Preparatory**Is this class challengeable?****No****Can this course be repeated for credit in a degree?****Yes**

Up to how many credits can this course be repeated to satisfy a degree requirement? 4

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?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

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

Yes

Recommendations: Completion of MFG-201 and MFG-204 (May be taken concurrently with MFG-204)

Requirements: Instructor Consent

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?

✓ Not every term

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?

No

Student Learning Outcomes:

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

1. demonstrate the ability to document, plan and implement a manufacturing process for a given product;
2. demonstrate a proficiency with CAD/CAM software and CNC machining,
3. accurately manufacture a part or parts based on a process plan,
4. work independently on an individual project.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Create or obtain engineering drawings (CAD/CAM).
2. Develop shop drawing (CAD/CAM).
3. Develop a manufacturing process plan.
4. Create CNC programs and set-up sheets as necessary.
5. Manufacture parts using prints, process plan, set-up sheets, etc.
6. Dimensionally inspect/document finished parts.

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

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

Percent of course: 0%

First term to be offered:

Next available term after approval

:
