

Clackamas Community College

Online Course/Outline Submission System

 Show changes since last approval in red

Print

Edit

Delete

Back

Reject

Publish

Section #1 General Course Information**Department:**Manufacturing**Submitter**

First Name: Paul

Last Name: Wanner

Phone: 3387

Email: paulw

Course Prefix and Number:MFG - 105

Credits:2**Contact hours**

Lecture (# of hours): 28

Lec/lab (# of hours):

Lab (# of hours):

Total course hours: 28

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:Dimensional Inspection**Course Description:**

Covers precision measuring tools such as micrometers, dial indicators, gauge blocks, sine bars and other instruments used in quality control of manufactured products.

Type of Course:Career Technical Preparatory

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):Manufacturing Programs

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?

No

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

No

Will this class use library resources?

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. inspect a part with inspection tools, such as micrometers, dial and digital calipers, small hole gages and telescoping gages;
2. inspected a part with a height gage and dial indicator,
3. state how to correctly use and maintain a granite surface plate,
4. perform sine bar and gage block stack calculations,
5. use Go and No-Go gages for inspection,
6. understand the operating principles and uses of the optical comparator,
7. understand the operating principles of the coordinate measuring machine,
8. operate the Rockwell hardness tester,
9. state the operating principles of the Brinell hardness tester,
10. compared the surface finish of a part to that of a surface finish roughness gage,
11. use a Profilometer.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Steel rules - inch, decimal & metric.
2. Outside micrometers - mechanical, digital & electronic.
3. Inside micrometers.
4. Depth micrometers.
5. Vernier calipers, dial calipers & digital calipers.
6. Dial indicators.
7. Master height gages.
8. Telescoping gages.
9. Small hole gages.
10. Gage pins.
11. Go/No-Go plug gages.
12. Go/No-Go ring gages.
13. Periphery tape.
14. Gage blocks and sine block sets.
15. Vernier protractors.
16. Radius gages.
17. Go/No-Go thread plug & thread ring gages.
18. Feeler gages.
19. Visual and electronic surface finish roughness measuring tools.
20. Granite surface plates.
21. Angle plates.
22. 1,2,3 blocks.
23. Screw jacks.

- 24. Optical comparators.
- 25. Coordinate measuring machines.

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
:
