Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: Engineering Science

Submitter

First Name: Eric
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Course Prefix and Number:ENGR - 115

 # Credits:3

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 33

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: Engineering Graphics

Course Description:

Mechanical design automation software used to design parts and assemblies, design methods used to build, maintain and modify parts. Covers 2D documentation and isometric views cooperated with ASME standards. Includes real time shaded 3D modeling.

Type of Course: Lower Division Collegiate

Is this class challengeable?

No

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?

No

Are there prerequisites to this course?

No

Are there corequisites to this course?

Yes

Co-reqs:MTH-111

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

Yes

Recommendations: Pass RD-090 or placement in RD-115; pass WR-095 or placement in WR-121.

Requirements: None

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:No

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?

Yes

Student Learning Outcomes:

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

1. sketch a 2D profile for use by the Solid Works software,
2. edit and define parametric dimensions,
3. extrude 2D profiles into 3D solid models,
4. add features including holes, fillets and chamfers to the 3D solid model,
5. create multi-view drawings for drafting documentation,
6. create sheet metal and mold parts, and an assembly.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Introduction to the Solid Works software program.
2. Sketching in Solid Works.
3. Planes and Extrusions.
4. Fillets and Chamfers.
5. Revolves.
6. Holes and patterns.
7. Mirroring features.
8. Shell.
9. Sweeps.
10. 2D documentation.
11. Cosmetic threads and GTD. Assemblies.
12. 2D documentation of assemblies.
13. Sheet Metal Forging and molds Space Frame.
14. Kinematics.
15. Photo Works and Animator.
16. E-drawings.
17. Tool Box.

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%

Section #2 Course Transferability

Concern over students taking many courses that do not have a high transfer value has led to increasing attention to the transferability of LDC courses. The state currently requires us to certify that at least one OUS school will accept a new LDC course in transfer. Faculty should communicate with colleagues at one or more OUS schools to ascertain how the course will transfer by answering these questions.

1. Is there an equivalent lower division course at the University?
2. Will a department accept the course for its major or minor requirements?
3. Will the course be accepted as part of the University's distribution requirements?

If a course transfers as an elective only, it may still be accepted or approved as an LDC course, depending on the nature of the course, though it will likely not be eligible for Gen Ed status.

Which OUS schools will the course transfer to? (Check all that apply)

✓ **PSU (Portland State University)**
✓ **OIT (Oregon Institute of Technology)**
✓ **OSU (Oregon State University)**

Identify comparable course(s) at OUS school(s)

Oregon State--ENGR 112
Portland State--ME 122, part of block transfer
Oregon Tech--CE 203, MET 241

How does it transfer? (Check all that apply)

✓ **required or support for major**

:

First term to be offered:

Next available term after approval
: