Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: Manufacturing

Submitter

First Name: Wayne
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Course Prefix and Number: EET - 252

 # 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: Control Systems

Course Description:

Covers basic control system and sub-systems used controllers, sensors, transducers, motion and motor control systems.

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): Electronics Engineering Technology 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?

Yes

Recommendations: Completion of EET-137

Requirements: None

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. assemble (prototype bread board) circuits,
2. calculate and solve equations for various parameters that calculate the circuit operation and then measure the results of the circuit,
3. construct the circuits using various components such as: transistors, diodes, resistors, LED's, switches, operational amplifiers, stepper motor controls, inverters, converters, sensors, transducers, transmitters, relays and valves;
4. demonstrate the proper use of the oscilloscope, digital multi-meter, bench power supplies and function generators during the lab exercises,
5. assemble (prototype bread board) circuits, calculate and solve equations for various parameters that calculate the circuit operation and then measure the results of the circuit.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Solid-state devices.
2. Open & closed loop control systems.
3. Stepper motor controls.
4. Inverters and converters.
5. Sensors and transducers.
6. Transmitters, relays and valves.

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
: