

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 - 250**# 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: Linear Circuits**Course Description:**

Introduction to the operation and functions of operational amplifiers and linear devices. Design and circuit analysis of op-amps, comparators, converters and special purpose linear devices. Industry standard devices will be used.

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?

Yes

Pre-reqs: EET-137

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

No

Are there corequisites to this course?

No

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

Yes

Recommendations: Completion of EET-127

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, calculate and solve equations for various parameters that calculate the circuit operation and then measure the results of the circuit;
2. construct the circuits using various components such as: resistors, diodes, transistors, Op-Amps and 555 timer devices;
3. demonstrate the proper use of the oscilloscope, digital multi-meter, bench power supplies and function generators during the lab exercises.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Operational amplifiers.
2. Signal generators.
3. Comparators.
4. Active filters.
5. IC timers.
6. A-D and D-A converters.

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

:
