

Clackamas Community College
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Section #1 General Course Information

Department:Energy & Utility Resource Management

Submitter

First Name: Shelly

Last Name: Tracy

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Email: shellyt

Course Prefix and Number:APR - 118UL

Credits:1

Contact hours

Lecture (# of hours):

Lec/lab (# of hours): 24

Lab (# of hours):

Total course hours: 24

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:Transformer Connections I

Course Description:

Designed to instruct apprentices or journey-level workers on the basic fundamentals of transformer bank connections: delta-delta, wye-wye, wye-delta, open-delta, open-delta-wye and single-phase regulators and conditions that can cause backfeed. Transformer Training is required to be taken each of the three years of a line apprenticeship in order to meet degree requirements.

Type of Course:Career Technical Apprenticeship

Can this course be repeated for credit in a degree?

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):Electrician Apprenticeship Technologies AAS

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:None

Requirements:Journeyman lineman or second step apprentice

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?

- ✓ **Summer**
- ✓ **Fall**
- ✓ **Winter**
- ✓ **Spring**

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?

No

Will this course appear in the schedule?

No

Student Learning Outcomes:

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

1. identify proper transformer bank connections,
2. explain the results of wrong polarity, wrong taps and wrong connections;
3. implement safety procedures in connections of transformer banks and regulators,
4. perform voltage and current readings,
5. explain the relationship between mathematics and electricity in a distribution environment.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Vectoring.
2. Single phase theory.
3. Transformer concepts.
4. Transformer connections.
5. Installing transformers.
6. Voltage ratings.

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

:
