Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: Apprenticeship

Submitter

First Name: Shelly
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Course Prefix and Number: APR - 122UE

 # Credits: 4

Contact hours

Lecture (# of hours): 44
Lec/lab (# of hours):
Lab (# of hours):
Total course hours: 44

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: Line Estimator Theory II: Standards

Course Description:

Principles and concepts of codes that dictate performance standards and safe work practices found in OSHA 1910.269. Focus is on interpreting schematic drawings, reading blue prints and staking sheets, methods for storing explosives, crane set up and criteria for safe boom lift.

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 Technology 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: Accepted into the Line Estimator apprenticeship program

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 Only

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?

No

Will this course appear in the schedule?

No

Student Learning Outcomes:

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

1. list and explain laws and codes that govern electric utility operations and dictate performance standards,
2. summarize factors considered by the courts in sexual harassment cases,
3. identify and describe electrical apparatus for outside power line work,
4. read and interpret schematic drawings and staking sheets, discuss the different views found on blueprints, and articulate the overall purpose of blueprints;
5. differentiate among various sizes and classifications of electrical conductors and describe the different types of splices used on full-tension conductors,
6. review the purpose of faulted circuit indicators,
7. list the characteristics of insulation and describe the effects of environmental conditions on the performance of electrical insulation,
8. discuss and implement work safety habits, including criteria for making a safe lift with a boom and methods for safely storing explosives;
9. compare and contrast a level and a transit,
10. describe common defects found in line insulators and review the standard procedures for removing the jacket from cable,
11. articulate the differences between low voltage and high voltage terminations,
12. assemble a crane for lifting.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Electrical principles.
2. Laws that govern electric utility operations.
3. Codes that dictate performance standards.
4. Work safety habits.
5. Electrical apparatus for outside power line work.
6. Factors which are considered by the courts in sexual harassment cases.
7. Primary purpose for the use of blueprints.
8. Different types of splices used on full-tension conductors.
9. Purpose of faulted circuit indicators.
10. Effects of environmental conditions on the performance of electrical insulation.

11. Criteria for making a safe lift with a boom.
12. Different types of views found on a blueprint.
13. Interpretation of schematic drawings.
14. Reading a staking sheet.
15. Differences between a level and a transit.
16. Methods for storing explosives.
17. Electrical conductor sizing and classification.
18. Defects found in line insulators.
19. Differences between low voltage and high voltage terminations.
20. Insulation characteristics.
21. Procedures for removing the jacket from the cable.
22. Assembling and setting up a crane for lifting.

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
: