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 - 111UW

Credits: 5

Contact hours

Lecture (# of hours): 55 Lec/lab (# of hours): Lab (# of hours):

Total course hours: 55

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: Basic Substation Wireman I

Course Description:

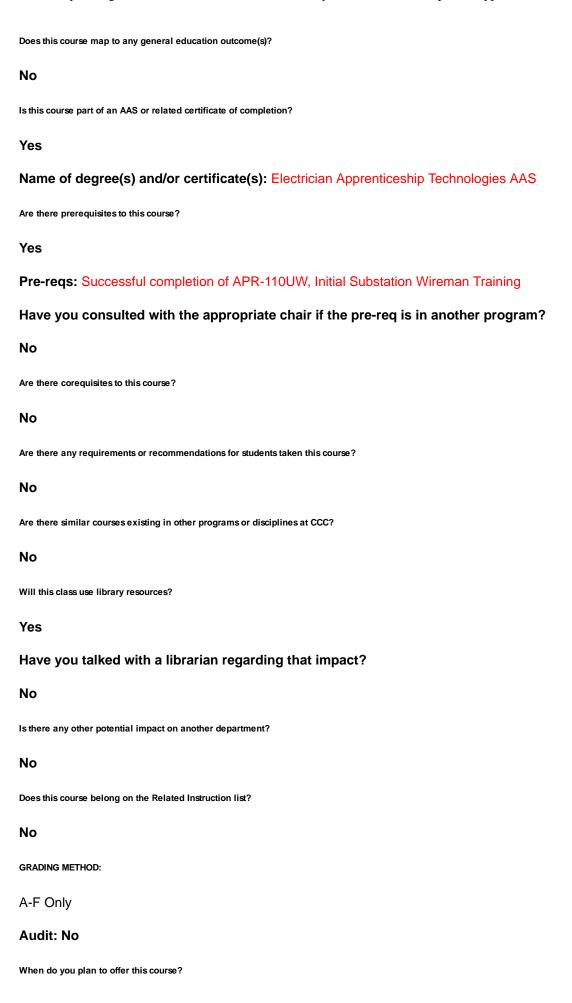
In this course, students will examine apprentice responsibilities including job conduct, absenteeism, sexual harassment, drug use and safety. Students will also begin the first step of electrical trade theory by studying basic math concepts, including whole numbers, fractions, decimals, percentages and equations. As the lessons progress, electrical components such as current, voltage, resistance, Ohm's Law and power will be introduced. This course is part of the NJATC Substation Curriculum.

Type of Course: Career Technical Apprenticeship

Can this course be repeated for credit in a degree?

No

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√ Fall

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. explain the academic responsibilities of an apprentice in this program,
- 2. list and describe the terms and conditions of the Apprenticeship Agreement,
- 3. solve fundamental math problems involving subtraction, multiplication, division, fractions, decimals and percentages,
- 4. develop algebraic equations and formulas to solve word problems,
- 5. explain the fundamentals of electricity including current, voltage, resistance and power,
- 6. describe common electrical hazards,
- 7. discuss safety codes and safety devices used by electrical workers,
- 8. use Ohm's Law to solve unknown values in an electrical circuit,
- 9. identify various hand and power tools of the wireman trade.

This course does not include assessable General Education outcomes.

Major Topic Outline:

- 1. Understanding your apprenticeship and responsibilities.
- 2. Math basics with whole numbers.
- 3. Solving algebraic equations and formulas.
- 4. Introduction to OSHA/1910.269 and responsibility for safety.
- 5. Electrical hazards.
- 6. Safety codes and safety devices.
- 7. The electrical circuit and Ohm's Law.
- 8. Basic tools of the trade, their use and care.
- 9. Digger Derrick capabilities, rigging calculations and rigging hands-on using hand signals.

Does the content of this class relate to job skills in any of the following areas:

1. Increased energy efficiency No

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Produce renewable energy
 Prevent environmental degradation
 Clean up natural environment
 Supports green services

No

Percent of course: 0%

First term to be offered:

Specify term: Fall 2014

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