Clackamas Community College

Online Course/Outline Submission System

Show changes since last approval in red Print Edit Delete Back
Reject Publish

Section #1 General Course Information

Department: Apprenticeship

Submitter

First Name: Shelly
Last Name: Tracy
Phone: 0945
Email: shellyt

Course Prefix and Number: APR - 112UW

 # 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 II

Course Description:

Basic Substation Wireman II will build on the concepts of electrical trade theory and introduce students to the aspects of substation safety. Students will have the opportunity to use analog or digital meters to measure voltage, current, and resistance in DC circuits. Fundamentals of substation safety will be explored including responsibilities, personal protective equipment (PPE), fall protection, grounding and electrical hazard awareness. 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

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?

Yes

Pre-reqs: Successful completion of APR-111UW, Basic Substation Wireman I

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?

No

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?

✓ 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?

No

Will this course appear in the schedule?

No

Student Learning Outcomes:

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

1. combine math skills with DC theory to solve problems involving series and parallel electrical circuits,
2. measure current in series and parallel circuits using either analog or digital meters,
3. explain electrical and substation hazards,
4. describe safety resources and safety devices used by electrical workers,
5. explain basic elements of substation construction including excavation, conduit, and underground cables;
6. explain how safety equipment such as protective line devices are used in substation construction,
7. list common Institute of Electrical and Electronics Engineers (IEEE) device numbers,
8. utilize substation prints and basic electrical tools to perform point-to-point wiring on a substation panel.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. DC Theory in electrical devices and paralell and series circuits;
2. Analog and digital meters and their use.
3. Substation hazards.
4. Safety resources and devices including PPE.
5. Substation construction, excavation and trenches.
6. Laying conduit and pulling cable.
7. Standards and device numbers.
8. Substation prints and basic tools for the job.

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
: