

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information**Department:**Apprenticeship**Submitter**

First Name: Shelly

Last Name: Tracy

Phone: 0945

Email: shellyt

Course Prefix and Number:APR- 255IE**# Credits:**3**Contact hours**

Lecture (# of hours): 36

Lec/lab (# of hours):

Lab (# of hours):

Total course hours: 36

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:NEC Analysis II**Course Description:**

This course takes an in-depth look at Chapters 1 – 3 of the National Electrical Code (NEC) NFPA 70 and incorporates Oregon and Washington rules and statutes.

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 & CC

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?

No

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 Only

Audit:Yes

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. explain working clearances,
2. identify the general definitions of the NEC,
3. identify the different wiring methods,
4. describe the installation requirements of branch circuits,
5. calculate service size,
6. explain installation requirements for feeders,
7. explain the different aspects of grounding,
8. explain the NEC requirements for receptacles,
9. explain where Oregon and Washington rules supersede the NEC.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Sizing, ground fault, and short circuit protection.
2. Working clearances around electrical equipment.
3. Requirements for GFCI protection.
4. Sizing electrical services in multiple building types.
5. Sizing and grounding electrode conductors and systems.
6. Designing branch circuits and feeders.
7. Installation criteria for different wiring methods.

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

:
