

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:**Appenticeship**Submitter**

First Name: Shelly

Last Name: Tracy

Phone: 0945

Email: shellyt

Course Prefix and Number:APR - 122UM**# 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:Metering: Fundamentals II**Course Description:**

This course is designed to instruct second-year apprentices on the graphic representation of system parameters (i.e. currents & voltages) and the various transformer line-ups that create those parameters.

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):Electrical Apprenticeship AAS

Are there prerequisites to this course?

Yes

Pre-reqs:Successful completion of APR-121UM

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?

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. show connections made for all transformer line-ups,
2. derive and draw system phasors for all possible transformer line-ups,
3. accurately perform power calculations using phasors,
4. effectively calculate neutral current, given phase current values.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Transformer construction and function.
2. System and service vectors.
3. Pulse weights and rates.
4. Analog outputs.
5. Quadrant metering.
6. Series test vectors.

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:

Specify term: Winter 2015
