

**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

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**Course Prefix and Number:**APR - 217PB

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**# Credits:**3

**Contact hours**

Lecture (# of hours): 33

Lec/lab (# of hours):

Lab (# of hours):

Total course hours: 33

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.

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**Course Title:**Advanced Plumbing Installation

**Course Description:**

Plumbing theory and association skills and knowledge related to residential, commercial and industrial installation of appliances, fixture fittings and trim, gas code, piping, controls and regulators, as well as mathematics relative to elevations, leveling and transit.

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**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-177PB

**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: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. apply new knowledge to properly install plumbing fixtures from rough-in to finish,
2. apply the National Fuel Gas Code of gas piping,
3. calculate elevations and grades, utilize a level and transit.

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***This course does not include assessable General Education outcomes.***

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Major Topic Outline:

1. Intro & explain objectives including "where you should be".
2. Fixtures at rough-in.
3. Fixtures at rough-in.
4. Fixtures at finish.
5. Gas properties.
6. Gases, pipe sizing.
7. Elevations in plumbing.
8. Elevations in plumbing.

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

- |                                      |           |
|--------------------------------------|-----------|
| 1. Increased energy efficiency       | <b>No</b> |
| 2. Produce renewable energy          | <b>No</b> |
| 3. Prevent environmental degradation | <b>No</b> |
| 4. Clean up natural environment      | <b>No</b> |
| 5. Supports green services           | <b>No</b> |

Percent of course:0%

First term to be offered:

**Next available term after approval**

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