# **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 - 147PB
# 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.
Course Title:Plumbing Math
Course Description:
This course will introduce students to basic math and specifically plumbing math as well as an in depth study of jobsite safety.
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):CONSTRUCTIONPB 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?

Will this course appear in the schedule?

#### No

#### **Student Learning Outcomes:**

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

- 1. demonstate the ability to complete mathematical calculations as necessary for the plumbing trade,
- 2. demonstrate accepted best practice safety practices on the job-site and take personal responsibility for safety on the site.

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

#### **Major Topic Outline:**

- 1. Introductions, orientation, syllabus and water fixture units.
- 2. Water pipe sizing & water treatment.
- 3. Mathematics related to plumbing.
- 4. Backflow protection.
- 5. Backflow protection continued & midterm.
- 6. Water heater code.
- 7. Trouble shooting for residential gas water heaters.
- 8. Various set ups for water heater installation (two or more).
- 9. Trouble shooting for gas water heaters.

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

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

: