

# APR 160 : PLUMBING SKILLS FUNDAMENTALS

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## Transcript title

Plumbing Skills Fundamentals

## Required materials

Materials not required.

## Credits

4

## Grading mode

Standard letter grades

## Total contact hours

80

## Other hours

80

## Course Description

Explore plumbing profession and learn about employer expectations. Includes workplace safety principles, plumbing terminology, basic trade math (including offsets), an overview of common tools and materials, reading plumbing drawings, and an introduction to the Uniform Plumbing Code (UPC) with Oregon Amendments, covering administration, definitions, and general regulations. Intended for Oregon state-registered apprentices working in the plumbing trade and offers a foundational introduction to essential trade skills.

## Course learning outcomes

1. Demonstrate a working knowledge of the plumbing trade and employer expectations, and workplace responsibilities.
2. Demonstrate appropriate and safe workplace behavior, employ common safety practices, and use different types of personal protective.
3. Identify and safely use and care for various plumbing hand and power tools, employ common safety practices, and use different types of protective gear.
4. Perform trade specific calculations with whole numbers, fractions, decimals, percentages, and ratios.
5. Calculate 45-degree offsets calculations.
6. Interpret drawings and measure pipe using fitting tables and framing squares.
7. Render accurate basic drawings showing layout and plumbing systems and use relevant plumbing definitions found in the Uniform Plumbing Code (UPC) and explain the purpose of ORSs and OARs in governance of licensure and plumbing regulations.

## Content outline

1. Basic concepts in safety in the workplace
2. Trade vocabulary
3. Trade math-basic offsets
4. Common tools and materials
5. Plumbing drawings
6. Introductory overview of the Uniform Plumbing Code (UPC) with Oregon Amendments; administration, definitions and general regulations