

# Plumbing 46.0503.00

## Program Description, Industry Credentials, Coherent Sequence, and Teacher Certification Requirements

### PROGRAM DESCRIPTION

**Plumbing** program prepares individuals to apply technical knowledge and skills to lay out, assemble, install, and maintain piping fixtures and systems for water, heating, cooling, drainage, lubricating, sprinkling, and industrial processing systems in home and business environments. Includes instruction in source determination, water distribution, waste removal, pressure adjustment, basic physics, technical mathematics, blueprint reading, pipe installation, pumps, welding and soldering, plumbing inspection, and applicable codes and standards.

The **Plumbing** Career and Technical Education program is delivered as a coherent sequence of courses designed to offer students knowledge and skills that meet the needs of the workplace. The Professional Skills developed by business and industry leaders across Arizona are integrated throughout the program.

**Plumbing** students develop leadership, social, civic, and career skills through participation in the state-recognized Career and Technical Student Organizations, SkillsUSA.

The **Plumbing** instructional program prepares students for entry-level employment, further training, and/or postsecondary education for these and other occupations: Journeyman Plumber, Contractor, Service Plumber, Plumbing Engineer, Plumbing Technician, Plumbing Field Manager, Plumbing Foreman, and Plumbing Estimator

### INDUSTRY CREDENTIALS

The following credentials have been approved for the A-F CCR and are CTED eligible for the **Plumbing** instructional program:

- National Center for Construction Education and Research (NCCER)
- OSHA 10-Construction Industry
- NCCER Core Curriculum
- NCCER Plumbing Level 1
- NCCER Plumbing Level 2
- CPR First Aid

### COHERENT SEQUENCE

**46.0503.10** - Plumbing I and

**46.0503.20** - Plumbing II and program may elect to add :

**46.0503.30** – Plumbing III or

**46.0503.40** – Plumbing IV or

**46.0503.70** – Plumbing Diversified Cooperative Education or

**46.0503.75** – Plumbing Internship or

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### TEACHER CERTIFICATION REQUIREMENTS

The instructor must be ADE/CTE certified in one of the following Certificates:

- SCTIET** Standard Career and Technical Education Industrial and Emerging Technologies
- SSCTEJET** Standard Specialized Career and Technical Education Industrial and Emerging Technologies

- Note:
- Plumbing **46.0503.80** does require a CTE Teacher to have the Cooperative Education Endorsement (CEN).
  - Plumbing **46.0503.70** (Internship) **does not** require a CTE Teacher to have a Cooperative Education Endorsement (CEN).
  - Plumbing **46.0503.75** (Cooperative Ed.) requires CTE Teacher to be appropriately certified for the program and to have a Cooperative Education Endorsement (CEN).