



8859

EXPLORATION OF PLUMBING  
AND PIPE TRADES (9)

15S/15E/15M

10S/10E/10M

A Plumbing and Pipe Trades Course



8859 EXPLORATION OF PLUMBING AND PIPE  
TRADES  
15S/15E/15M 10S/10E/10M

### Course Description

This is an optional course intended for students wishing to sample plumbing and the pipe trades. The emphasis is on hands-on activities. Students are introduced to safety, tools and equipment, plumbing and piping systems, and service procedures.

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**Goal 1:** Describe and apply **health and safety** practices.

**GLO 1.1:** Describe and apply health and safety practices.

No applicable SLOs.

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**GLO 1.2:** Demonstrate an understanding of the ***Trade Safety Awareness Curriculum for Level 1 Apprentices***.

No applicable SLOs.

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**Goal 2:** Demonstrate the **use and management of equipment, tools, and materials**, including those used in **fuel brazing and cutting**.

**GLO 2.1:** Demonstrate the **use and management of equipment and tools**.

No applicable SLOs.

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**GLO 2.2:** Demonstrate the use and management of **fuel brazing and cutting equipment and tools**.

No applicable SLOs.

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**Goal 3:** Demonstrate an understanding of the **properties and applications** of various types of **piping and tubing**.

**GLO 3.1:** Demonstrate an understanding of the **properties and applications** of **piping and tubing**.

No applicable SLOs.

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**GLO 3.2:** Demonstrate an understanding of the **properties and applications** of **plastic piping**.

No applicable SLOs.

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**GLO 3.3:** Demonstrate an understanding of the **properties and applications** of **copper tubes and tubing**.

No applicable SLOs.

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**GLO 3.4:** Demonstrate an understanding of the **properties and applications** of **steel piping**.

No applicable SLOs.

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**GLO 3.5:** Demonstrate an understanding of the **properties and applications** of **cast iron piping**.

No applicable SLOs.

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**GLO 3.6:** Demonstrate an understanding of the **properties and applications** of **glass piping**.

No applicable SLOs.

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**GLO 3.7:** Demonstrate an understanding of the **properties and applications** of **asbestos-cement piping**.

No applicable SLOs.

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**Goal 4:** Demonstrate an understanding of the **properties and applications of various materials (other than piping and tubing)** used in plumbing and the pipe trades.

**GLO 4.1:** Demonstrate an understanding the **properties and applications of various materials (other than piping and tubing)** used in plumbing and the pipe trades.

No applicable SLOs.

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**Goal 5:** Demonstrate an understanding of the **design and layout of piping systems**.

**GLO 5.1:** Demonstrate an understanding of the **design and layout of piping systems**.

No applicable SLOs.

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**Goal 6:** Demonstrate an understanding of the **joining, fabrication, and installation** of piping systems, including **hoisting, lifting, and rigging, and access equipment.**

**GLO 6.1:** Demonstrate an understanding of the **joining and fabrication** of piping systems.

No applicable SLOs.

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**GLO 6.2:** Demonstrate an understanding of the **installation** of piping systems.

No applicable SLOs.

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**GLO 6.3:** Demonstrate an understanding of **hoisting, lifting, and rigging.**

No applicable SLOs.

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**GLO 6.4:** Demonstrate an understanding of **access equipment.**

No applicable SLOs.

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**Goal 7:** Demonstrate an understanding of the **documentation and testing** of piping systems.

No applicable SLOs.

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**Goal 8:** Describe and demonstrate the transferable **cross-curricular** knowledge and skills as they pertain to plumbing and the pipe trades.

**GLO 8.1:** Read, interpret, and communicate **information.**

No applicable SLOs.

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**GLO 8.2:** Apply knowledge and skills from **mathematics.**

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| SLO 9.8.2.1 | Identify and describe metric (SI) and imperial weights and measures, decimals and fractions, terms, prefixes, and relationships. (A8a.1) |
| SLO 9.8.2.2 | Identify and describe formulas and formula transposition. (A8a.2)  |
| SLO 9.8.2.3 | Identify and describe the square root, perimeter, and circumference. (A8a.3)   |
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**GLO 8.3:** Apply knowledge and skills from the **sciences**.

No applicable SLOs.

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**GLO 8.4:** Apply knowledge and skills from **information and communication technology**.

No applicable SLOs.

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**Goal 9:** Demonstrate an understanding of the **structure and scope** of plumbing and the pipe trades.

**GLO 9.1: Demonstrate an understanding of the structure and scope of plumbing and the pipe trades, as well as associated occupations.**

No applicable SLOs.

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**GLO 9.2:** Demonstrate an understanding of **training and employment opportunities** in plumbing and the pipe trades, as well as in associated occupations.

SLO 9.9.2.1      Demonstrate an awareness of apprenticeship and the reason why trades use this system.

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**Goal 10:** Demonstrate an awareness of **sustainability** as it pertains to plumbing and the pipe trades.

**GLO 10.1:** Describe the impact of **human sustainability** on the health and well-being of plumbers, tradespersons working in the pipe trades, and those who use the systems they construct.

SLO 9.10.1.1      Demonstrate an awareness of sustainability as it relates to human health and well-being.

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**GLO 10.2:** Describe plumbing and the pipe trades' **sustainability practices** and **impact on the environment**.

No applicable SLOs.

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**GLO 10.3:** Describe **sustainable business practices** within plumbing and the pipe trades.

No applicable SLOs.

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**Goal 11:** Demonstrate an awareness of the **ethical and legal standards, including codes**, as they pertain to plumbing and the pipe trades.

**GLO 11.1:** Demonstrate an understanding of **ethical and legal standards**.

No applicable SLOs.

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**Goal 12:** Demonstrate **employability skills**.

**GLO 12.1:** Demonstrate fundamental **employability skills**.

SLO 9.12.1.1 Demonstrate regular and punctual attendance.

SLO 9.12.1.2 Communicate respectfully and effectively with teachers, supervisors, co-workers, and students.

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**GLO 12.2:** Demonstrate an understanding of the **business operations** of a plumbing and pipe trades organization.

No applicable SLOs.

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**Goal 13:** Demonstrate an awareness of the **history, technological progression, and emerging trends** in plumbing and the pipe trades.

**GLO 13.1:** Demonstrate an awareness of the **history, technological progression, and emerging trends** in plumbing and the pipe trades.

No applicable SLOs.

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