

Gas Properties for Transit Mechanics (Microlearning Course)

Course Description:

This short course covers the essential properties of Compressed Natural Gas (CNG) and why they matter for transit mechanics. You'll learn how temperature, pressure, and gas behavior affect engine performance, safety, and emissions. Real-world examples and interactive checkpoints help you connect these concepts to everyday maintenance and inspection tasks. This course is a required foundation for anyone working on CNG-powered buses and prepares you for the hands-on engine training that follows.

Course Benefits:

Students will gain a clear understanding of how natural gas behavior affects engine operation and emissions. This course covers:

- The relationship between gas pressure, temperature, and volume
- How sensors and control modules use this information to maintain proper combustion

By completing this course, mechanics will be better equipped to support the performance and reliability of natural gas engines.

Who Should Attend:

Mechanics who plan to complete the Cummins Engine online learning course and attend the 2-day Cummins Engine Instructor-Led Training course.

What You Will Learn:

- Identify the basic properties of Compressed Natural Gas (CNG) used in transit buses
- Describe how pressure and temperature affect CNG behavior and storage
- Recognize the signs of a possible gas leak and the risks involved
- Explain why CNG is flammable and what can ignite it
- Determine key safety checks to perform before working around CNG systems

Course Structure:

Module 1: CNG Basics

- What is CNG?
- Why CNG is stored as a gas at high pressure
- States of matter and how gas changes with temperature and pressure
- CNG behavior in cold and hot environments
- Normal vs. abnormal pressure readings (Interactive)

Module 2: CNG Safety

- How CNG leaks behave (rising gas, mercaptan smell)
- CNG's flammable range and ignition sources
- Required safety checks before working
- Hazard Identification (Interactive)

Assessment: End-of-course exam (10 questions and 80% required to pass)

Duration: This is a 10-minute online course.