

1 Introduction to the Pipeline Industry

1.1 Course Description

This course introduces learners to the pipeline industry. Key topic areas include how liquids and gas pipelines work, the products they move, and the stages of the pipeline lifecycle, while also covering basic terminology relevant to the industry. Self-assessments are used to reinforce key concepts, and a final graded assessment evaluates the learner's understanding of the material. The online course format provides individuals the flexibility to review and reinforce the material at their own pace. What sets this course apart is that it equips learners with foundational knowledge to support further learning in the pipeline industry.

Format: Online

Prerequisite Courses & Materials:

Duration: ~1 hour

N/A

1.2 Learning Objectives

By the end of the course, participants should be able to:

1. Sequence the nine links in the "energy value chain".
2. Differentiate basic characteristics of liquids and gas pipelines.
3. Rank liquid and gas pipeline products in the order of their need for refinement.
4. Sort, in order, the seven stages that make up a pipeline lifecycle.
5. Identify the elements within each stage of the pipeline lifecycle.

1.3 Who Should Take This Course

The course is best suited for:

- Individuals seeking basic knowledge about the pipeline industry.
- Individuals considering or pursuing careers in the pipeline industry.

1.4 Course Topics

Main topic areas covered in this course include:

- Background
 - World Consumption of Energy
 - Petroleum Industry Statistics
 - Petroleum Industry: History and Today
- What Petroleum Products do Liquids and Gas Pipelines Transport?
 - Hydrocarbons
 - Hydrocarbon Refinement
 - Hydrocarbon Types
 - Everyday Life
- How do Liquids and Gas Pipelines Work?
 - Energy Value Chain
 - Types of Pipeline Systems
 - Pipelines
 - How a Liquids Pipeline System Works
 - How a Gas Pipeline System Works
- Pipeline Lifecycle Stages

- Pipeline Lifecycle Map
- Pipeline Lifecycle
- Feasibility
- Planning
- Design and Materials
- Construction
- Operations
- Maintenance
- Abandonment