



MODULE 24101 - JOB SITE SAFETY

1. Identify and properly use the following appropriate personal protective equipment:
 - Hard hat
 - Safety shoes
 - Eye protection
 - Toe protectors, metatarsal guards, and shin guards
 - Gloves
 - Hearing protection
 - Respiratory protection
 - Fall protection
 - Trench boxes
 - Atmosphere monitors
 - Rescue and retrieval safety harness
 - Orange reflective vest
2. Identify routine good housekeeping practices on the job site.
3. Describe safety precautions associated with the safe use of hand and power tools.
4. Identify methods for safely locating existing underground utilities.
5. Describe the purpose and proper placement of barricades.
6. Interpret signs and placards usually found on the job site.
7. Identify the safety hazards associated with construction vehicles on the job site.
8. Identify the types of ladders and their safe use.
9. Describe the methods for safely and effectively controlling traffic around a job site.
10. Identify overhead dangers on a job site.
11. Identify safety precautions for working around explosives.

MODULE 24102 - TOOLS AND EQUIPMENT

1. Identify common pipelaying hand and power tools.
2. Describe the safe use and maintenance of pipelaying hand and power tools.
3. Describe the safe use and maintenance of power equipment.
4. Describe the safe use and maintenance of dewatering equipment.
5. Identify the power tools commonly used in pipelaying.

MODULE 24103 - RIGGING AND DELIVERING PIPE AND ASSOCIATED STRUCTURES

1. Use hand signals to deliver pipe and associated structures.
2. Identify the proper method for attaching rigging to pipe and appurtenances, including specific rigging methods and identification of the center of gravity.
3. Discuss the safety precautions associated with rigging and delivering pipe.
4. Discuss the steps taken while delivering pipe such as pipe inspection, joint inspection, and cleaning.

MODULE 24104 - CUTTING PIPE

1. Identify the types and characteristics of ductile iron, concrete, corrugated steel, and thermoplastic pipes (PVC, HDPE, ABS).
2. Describe the methods for preparing pipe for cutting, including:
 - Chocking the pipe
 - Measuring and marking the pipe
 - Selecting the correct cutting blade
3. Identify the correct bevel for slip and mechanical joint pipe.
4. Identify the inspection points of a cut pipe.
5. Identify the safety precautions associated with cutting pipe including, the selection and use of appropriate personal protective equipment.
6. Describe the good housekeeping practices to be followed when cutting pipe.

MODULE 24105 - GASKETS, JOINTS, AND FITTINGS

1. Identify the common types of joints and fittings used in pipelaying.
2. Describe the methods for assembling various pipe joints.
3. Identify factors that could damage gasket materials.
4. Identify the basic methods for repairing joints.
5. Discuss the techniques for accurately estimating and maintaining gasket and joint materials on the job.

MODULE 24106 - INTRODUCTION TO ELEVATIONS

1. State the purpose of the laser, level, and transit.
2. Describe the setup and use of the laser.
3. Describe the methods for accurately holding and reading the level rod.
4. Describe the proper care and maintenance of the laser, level, and transit.
5. Discuss basic elevations.

MODULE 24107 - TRENCH SAFETY

1. State the safety precautions for working in and around a trench.
2. Recognize the following trench safety systems:
 - Shoring
 - Sloping
 - Shielding
3. Discuss the proper placement and use of ladders in the trench.
4. Identify the hazards associated with spoil piles.
5. Recognize the indications of an unstable trench.
6. Recognize the conditions that make a trench a Confined Space.
7. Describe the specific dangers associated with entering Confined Space structures such as manholes, trenches, pipes, and tunnels.

MODULE 24108 - FOUNDATION STABILIZATION, BEDDING, AND DEWATERING

1. State the purpose of stabilization and bedding.
2. Identify the types of bedding materials.
3. Determine the amount of bedding required.
4. Discuss the process for laying bedding material.
5. State the purpose of dewatering a trench.
6. List the EPA requirements concerning water discharge quality.
7. Describe the method for breaking pump suction.
8. Identify the routine maintenance requirements for dewatering equipment.
9. Discuss the personal safety and environmental hazards associated with dewatering equipment.

MODULE 24109 - TESTING PIPE

1. Explain the primary reasons for testing water systems.
2. Describe the method for pressure testing water systems.
3. Identify safety concerns when pressure testing water systems.
4. Describe the three ways to chlorinate water systems.
5. Describe the method for testing bacteria in water systems.
6. Explain the reasons for inspecting and testing storm and sewer systems.
7. Describe the types of inspections performed for storm and sewer systems.
8. Describe the following types of storm and sewer system tests:
 - Visual
 - Mandrel
 - Water
 - Air
 - Vacuum
 - Infiltration
 - Exfiltration
9. Describe the two methods for cleaning storm and sewer system lines.