Course Information Form (CIF)

Course Code: LBR 131

Course Title: Principles of Pipelaying

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 46.0503
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-2-3
Credit Hour Distribution:

Lecture: 2	Lab: 2	Clinical: 0	**Total: 3**

General Course Information

Catalog Description

Principles of pipelaying including gravity flow piping systems, batter boards, sewer lasers, utility lines and grades, review of metric system.

General Course Objectives

Students will understand the theory of pipelaying and be able to lay pipe.

Minimum Placement Levels

English	Reading	Math
None	None	None

Prerequisites

Credit in LBR 111, LBR 112, LBR 113, LBR 114, and LBR 115
Admission into the Laborers Apprenticeship program

Methods of Evaluation

The minimum evaluation methods include 1 written and 1 practical exam.

Instructional Materials and Additional Supplies

Principles of Pipelaying for the Laborer, Laborers Training Fund, Modules 2005.

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Measurements	1. Obtain measurements using the Engineer's Rule and the Philadelphia Rod. 2. Convert measurements to needed units.	2	2	0
Terms and Definitions	1. Match terms and definitions.	2	0	0
Batter Boards	1. Lay out batter boards for a project. 2. Explain the basic principles of surveying.	2	2	0
Pipelaying with Batter Boards	1. Prepare a ditch. 2. Set bell pipe. 3. Check line and grade of pipe.	2	6	0
Pipe Flow Specifications	1. Determine minimum percent of grade. 2. Explain specific pipe flow specifications.	2	2	0
Sewer Laser Operation and Maintenance	1. Operate various types of sewer lasers. 2. Maintain sewer lasers.	2	2	0
Grade Instrument Height	1. Determine the height of the grade instrument.	1	1	0
Setup of Machines	1. Set up machines used in pipelaying. 2. Correct errors in setups.	2	5	0
Check of Flowline and Grade	1. Check flowline and pipe grade.	2	2	0
Blueprint Review	1. Explain what is found on blueprints with respect to pipelaying.	2	1	0
Sewer and Water Hookup	1. Hook up sewer and water to a pipe. 2. Describe how to repair sewer pipes.	2	3	0
Field Tests	1. Set up machine. 2. Check flow line.	2	3	0
Metric Review	1. Convert into metrics. 2. Calculate using the metric system.	5	0	0
Exams	1. Demonstrate understanding of the principles of pipelaying through written and practical exams.	2	1	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0