Course Information Form (CIF)

Course Code: LBR 115

Course Title: Asphalt Technology and Construction

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 49.0202
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

Asphalt technology and construction, flagger certification, manual tape application, paint striping operator, and carbide asphalt grinder.

General Course Objectives

- Students will understand the history and use of asphalt and the equipment used to apply asphalt.
- Students will pass the Illinois Flagger Certification Examination.

Minimum Placement Levels

English	Reading	Math
None	None	None

Prerequisites

Admission into the Laborers Apprenticeship program

Methods of Evaluation

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

Instructional Materials and Additional Supplies

Asphalt Technology and Construction, Laborers Training Fund, Modules 2007.

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
History and Uses of Asphalt	1. Match terms and definitions related to the use of asphalt. 2. List reasons to use asphalt. 3. Describe the laborer's job when using asphalt.	3	0	0
Subgrade Preparation	1. Describe compaction. 2. Describe how to prepare different soils for asphalt. 3. Demonstrate the preparation for full depth pavement. 4. Explain the use of a carbide grinder.	3	3	0
Placing and Raking Asphalt	1. Describe and demonstrate techniques used with asphalt. 2. Explain placing and raking. 3. Discuss the differences in placing hot and cold mixes.	3	3	0
Asphalt Pavers	1. Explain the principles of asphalt pavers. 2. Identify parts of the paver operating manual. 3. Demonstrate how to use paving equipment.	3	3	0
Asphalt Rollers and Roller Operating Manual	1. Describe rolling asphalt. 2. Compare and contrast asphalt rollers. 3. Identify where to find things in the operating manual.	3	3	0
Asphalt Maintenance and Rehabilitation	1. Discuss rehabilitation using hot mix overlays. 2. Describe the preparation for an overlay. 3. Explain how to widen with asphalt. 4. Discuss maintenance and repair of parking lots. 5. Demonstrate cold planing. 6. Explain recycling and reclamation, including the use of tires in asphalt.	3	3	0
Full Depth Asphalt Uses	1. Describe sub-grade preparations for full depth asphalt uses, including subgrade preparation, asphalt pavements, asphalt patching, and driveways. 2. Discuss types of small paving job applications. 3. Estimate asphalt quantity.	3	4	0
Equipment Overview	1. Describe and explain equipment used with asphalt such as extruded curbers, compressors, small gas engines, manual tape applicators, and pavement breakers. 2. Demonstrate uses of asphalt equipment.	3	4	0
Cold and Hot Mix Application	1. Describe how to prepare the base. 2. Describe rake, lute, and roller uses. 3. Demonstrate the use of a power curber and vibratory compactor.	2	2	0
Exam, Demonstration, and IDOT Certification	1. Pass the course exam and in-class practical demonstration. 2. Pass the exam to become an IDOT certified flagger.	4	5	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0