

Asphalt R & R Syllabus

Time: 40 hours

Maximum Class Size: 12

Prerequisites: None

Course Description: Asphalt is the pavement choice for most U.S. roads and runways today. The Construction Craft Laborer is a contributing factor to the safe travel of Americans across the country. This course will empower the participant with the skills for placing, removing, and patching asphalt surfaces, the safe procedures for working with asphalt, and using the tools needed for asphalt scopes of work.

Goals/Objectives/Student Learning Outcomes:

- List 3 – 5 items used as PPE for working with asphalt
- List 3 – 5 tools used for working with asphalt
- Describe 2 – 4 industry uses for asphalt
- Describe 2 – 4 hazards of working with asphalt and give at least 1 control measure for each
- Demonstrate safe shoveling techniques
- Describe 1-2 methods of shoveling specific to asphalt work
- Describe the best practices for using a rake / lute
- Safely and efficiently start and operate a plate compactor
- Safely and efficiently connect, light, and use a propane torch
- Demonstrate the proper hand signals for dumping asphalt

Standards Addressed

- OSHA 29 CFR 1926 Subpart E Personal Protective Equipment
- OSHA 29 CFR 1926.652 Protection of Employees in Excavations

Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

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Textbooks/Readings/Materials

- LTS *Asphalt R & R* Lesson Plan
- LTS *Asphalt R & R* Student Handout Packet
- IT1- Picture of piles of asphalt
- IT2- Before we can pave (strips)
- *Introduction to Asphalt*- LIUNA Training
- *Asphalt Safety*-LIUNA Training
- *Basic Construction Math*- LIUNA Training
- *Asphalt Placing and Paving*- LIUNA Training
- *Asphalt Patching and Repair*- LIUNA Training
- *Asphalt Calculations and Estimating*- LIUNA Training
- *Soil Compaction*- LIUNA Training
- *Back Injury Prevention*- LIUNA Training
- *How it's Made*-DVD
- "Industry Curriculum" Asphalt-DVD
- "Introduction to Asphalt" DVD
- "Asphalt Placing and Paving" DVD
- "Asphalt Patching and Repair" DVD
- "Basic Principles in the Transfer of Grade" DVD
- "US Standard to Decimal Conversion Table"
- "Engineers Ruler and Grade Pole"- Handout

Tools/Equipment/Other Materials

- Laser level and grade rod
- Asphalt hand tools: shovels, lutes, sledge hammers, putty knives, brooms, propane torch, string line, buckets, hubs, tack broom etc.
- Engineer's rulers, tape measures
- Compactors: hand tampers, vibratory plates.
- Air compressor, hoses, and pavement breakers
- 10 ton of asphalt, tack
- Pavement cutting walk-behind saw.
- Skid Steer loader or Skip Loader

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Personal Protective Equipment

- 12 pairs of gloves
- 12 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 12 hard hats

Course Requirements

To receive credit for the course, participants must:

- Be present for full forty hours
- Participate in all classroom exercises
- Pass a written exam
- Pass a hands-on exam

Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety

Failure to maintain and use PPE may result in dismissal from the course.