

Fence Installation & Repair Syllabus

Time: 40 hours

Maximum Class Size: 12

Prerequisites: None

Course Description: Fence erecting is the mainstay of all construction. Wherever you see any type of construction you will also see some type of barrier. Barriers serve to keep the public, as well as those on the jobsite, safe. Metal beam guard rail, slip form barrier walls, wrought iron, wood, chain link and most recently P.V.C. are a few of the types of barriers. In addition, all these types of fences or barriers will at some point need repair. This course will instruct the participant in awareness, guardrail installation, and fence/barrier erecting and fence/barrier repair.

Goals/Objectives/Student Learning Outcomes:

- Demonstrate proper layout techniques for chain links and guardrail
- Dig holes by hand
- Demonstrate the proper use of digging bar
- Mix concrete by hand
- Pour ready mix from ready mix truck
- Trowel and crown a fence post
- Calculate designated amount of concrete
- Name fence hardware
- Install fence hardware
- Identify various gauges of chain link
- Tie and hog ring: front and back tie
- Measure for gates
- Hang gates
- Repair chain link and guardrail
- Complete a written Fence Installation & Repair Exit Exam with a score of 80% or above.
- Complete a Hands-on Performance Evaluation with a score of 80% or above.

Standards

- OSHA 29 CFR 1926.95 Personal Protective Equipment
- OSHA 29 CFR 1926.20 Subpart C: General Safety and Health Provisions
- OSHA 29 CFR 1926.23 First Aid and Medical Attention
- OSHA 29 CFR 1926.24 Fire Protection and Prevention
- OSHA 29 CFR 1926.51 Subpart D: Sanitation

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- OSHA 29 CFR 1926.302 Subpart I: Power Operated Hand Tools
- OSHA 29 CFR 1926.351 Subpart J: Arc Welding & Cutting (a-e)
- OSHA 29 CFR 1926.4453 Subpart L: Aerial Lifts
- OSHA 29 CFR 1926.1053 Subpart X: Ladders

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

Textbooks/Readings/Materials

- *LIUNA Basic Construction Math* IG/PG
- *LIUNA Back Injury Prevention* IG/PG
- Hand-out: US Standard to Decimal Conversion Table
- Hand-out: Engineers ruler and grade pole handout

Tools/Equipment/Other Materials

- Laser level, grade rod, plumbs and torpedo levels
- Fence hand tools: Round shovel, posthole diggers, digging bar, pipe wrench, pipe cutters, porta band saw, slip joint pliers, fence pliers, hog ring pliers, B. O.E. pliers, cross cut pliers, ratchets and sockets, etc.
- Engineers Ruler
- Tape measures
- Skid Steer with auger attachment-8", 10', 12"
- Chain link fabric, posts (lines and corners), cement, rock, sand, water, ties, hardware, tension wire, hog rings, BOEs
- Guardrail: 6' X 8' X 5'4"
- Wood posts (treated)
- Guardrail
- Hardware

Personal Protective Equipment

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

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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.