

ATLB-2350: LABORERS: FOREMAN TRAINING

Cuyahoga Community College

Viewing: ATLB-2350 : Laborers: Foreman Training

Board of Trustees:

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Academic Term:

Fall 2021

Subject Code

ATLB - AIT-Construct/Hazard Material

Course Number:

2350

Title:

Laborers: Foreman Training

Catalog Description:

Advanced course covering the aspects of good leadership as foreman/general foreman including the chain of command, worker and jobsite safety and field documentation. Also included is the compilation of working schedules and conversation management.

Credit Hour(s):

5

Lecture Hour(s):

5

Requisites

Prerequisite and Corequisite

Departmental approval and membership in the LIUNA Laborers International Union of North America.

Outcomes

Course Outcome(s):

I. Discuss the supervisor's positions in the chain of command, job responsibilities, and qualifications and specific duties required of the foreman and general foreman.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. List and define terms related to laborers supervisions in the construction industry.
2. Identify the hierarchy of the chain of command with respect to construction and contracting terms.
3. Differentiate between a working foreman and a general foreman.
4. List and explain the qualifications of a working foreman and a general working foreman.
5. List and explain the qualifications required for a working and general foreman.

Course Outcome(s):

II. Discuss the aspects of construction jobsite safety assurance and list and explain foreman and general foreman tasks for promoting and ensuring best practices to keep workers safe on jobsites.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. List and define terms related to jobsite safety assurance.
2. Describe types of safety training a worker should receive prior to starting a job and describe the importance of safety accountability on a jobsite.
3. Describe methods of identifying safety issues and discuss the importance of implementing them.
4. Explain the importance of emergency planning, proper installation of traffic control devices, and weather factors that can affect safety issues.
5. List and describe three primary responsibilities of a foreman with respect to hazardous chemicals on a jobsite and characteristics of an effective toolbox talk.
6. Identify and explain safety and promotion compliance with respect to OSHA and other safety rules and regulations.
7. Differentiate between OSHA form 300 and 301 and explain the importance of creating and maintaining documentation for evaluating jobsite safety.
8. Define "competent person" as prescribed by OSHA and identify four requirements of the position that the employer must verify.
9. Describe how environmental sampling protects the air, water, and soil on construction sites.

Course Outcome(s):

III. Introduce and discuss the various types of field documentation the foreman is responsible for maintaining. Identify different types of documents including job progress and daily logs including worker hours, required equipment, and materials, and cost codes for tracking expenses.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. List and define terms related to foreman documentation and recordkeeping.
2. Explain the importance of maintaining job related documents.
3. List and explain four types of documents related to job progress.
4. Describe the five items documented on the foreman daily log.
5. Describe different types of documentation related to jobsite material and equipment.
6. Describe how cost codes are used for tracking time and job costs.

Course Outcome(s):

IV. Discuss the role of the Labor Foreman with respect to working schedules on jobsites including schedule components, affecting conditions, controlling factors, performance inspections, compliance, and principles of material storage.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. List and define terms related to job schedules, inspections, and material storage.
2. Differentiate between a Gantt chart and Critical Path on jobsites.
3. Explain the purpose of maintaining labor and material delivery schedules.
4. Describe "Look ahead" schedules and explain its function with respect to maintain coordination of equipment and materials.
5. Identify five conditions that affect project schedules.
6. Explain how time/labor costs can be reduced when projects fall behind schedule.
7. Explain the responsibilities of the Labor Foreman during performance inspections.
8. Discuss the role of the Labor Foreman with respect to compliance regarding job safety and quality of workmanship.
9. Identify five different meetings the Labor Foreman is expected to attend to maintain job harmony and scheduling matrices.
10. Discuss three principles of material storage to facilitate handling and equipment maintenance.

Course Outcome(s):

V. Express the importance of effective supervision techniques including qualities of leadership, constructive feedback, motivation and resolution of conflicts.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Discuss the purpose of foremanship orientation covering company policies, safety and emergency procedures.
2. List various examples of jobsite violations by employees including safety, conduct and harassment and explain the respective consequences affecting jobsite culture.
3. Explain how teamwork, leadership and fairness are important qualities in achieving common goals.
4. State the importance of providing constructive and useful feedback with respect to job performance and behavior.
5. Differentiate between coaching a worker and assessing discipline.
6. Identify worker behavioral problems with respect to degree of effect and address immediately with fairness.
7. Differentiate between mentoring and coaching job performance.
8. Recognize the importance of providing motivation to workers based upon individual behavior while employing techniques that include good listening skills and specific rewards.
9. Identify the causes of workplace conflict and describe the methods of resolution through foreman management skills.

Course Outcome(s):

VI. Discuss the aspects of successful communication with respect to conversation management, good questioning and listening techniques and analytical reporting.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. List the aspects of good listening and state barriers to effective communication.
2. List problems of miscommunication and identify techniques employed for clear instruction.
3. Describe effective conversation management techniques that maintain assertiveness and composure using open ended questions and summarization.
4. Explain the importance of stating facts concisely to avoid misinterpretation.
5. Identify different forms of written communication used to effectively convey information professionally.
6. Differentiate between informational and analytical reports used for information conveyance and decision making tracking.

Methods of Evaluation:

1. Quizzes
2. Tests
3. Class participation

Course Content Outline:

1. Introduction to foreman training
 - a. Terminology
 - i. Foreman
 - ii. Working foreman
 - iii. General foreman
 - iv. Superintendent
 - v. Leadership
 - vi. Adaptability
 - vii. Dependability
 - viii. Decision making
 - ix. Attention to detail
 - x. Analytical thinking
 - xi. Critical
 - xii. Active listener
 - xiii. Initiative
 - xiv. Monitoring

- xv. Instructing
- xvi. Chain of command
- b. Chain of command
 - i. Owner
 - ii. Owner project manager
 - iii. Contractor
 - iv. Contractor project manager
 - v. Contractor safety director
 - vi. Superintendent
 - vii. Assistant superintendent
 - viii. General foreman
 - ix. Foreman
 - x. Crew member
- c. Working foreman vs. general foreman
 - i. Working foreman
 - 1. Directly supervises work crew
 - 2. Daily activities
 - 3. Tools and equipment
 - 4. Time keeper
 - 5. Oversees safety
 - 6. Task completion status
 - 7. Actively participates
 - ii. General foreman
- d. Working foreman and general foreman: qualifications
 - i. Working foreman
 - 1. Industry knowledge
 - a. Materials, methods, practices, regulations, tools, and equipment
 - b. Applicable safety practices
 - c. Supervisory methods, practices, and procedures
 - d. Construction drawings and specifications
 - e. Work schedules, critical path activities
 - 2. Skills
 - a. Listening
 - b. Critical thinking
 - c. Worker management
 - d. Judgment and decision making
 - e. Effective use of technology
 - 3. Abilities
 - a. Comprehension
 - b. Verbal communication
 - c. Written information
 - d. Written communication
 - e. Deductive reasoning
 - ii. General Foreman
 - 1. Working Foreman qualifications
 - 2. Five years working experience
 - 3. Two to three years of work experience as a working foreman
 - 4. Communicates with job superintendents
- e. Working foreman and general foreman: responsibilities
 - i. Working foreman
 - 1. Contractual compliance
 - 2. Daily crew schedules
 - 3. Tools/equipment maintenance
 - 4. Daily record keeping
 - a. Time cards
 - b. Field reports
 - c. Scheduled updates
 - d. Maintains job schedule
 - e. Promote safety and health

- f. Staff meetings
 - g. Training programs
 - ii. General foreman
 - 1. Liaison between superintendent and working foreman
 - 2. Tool/equipment procurement
 - 3. Enforces policies
 - 4. Oversight of foreman and crews
 - 5. Safety reports
- 2. Safety assurance
 - a. Terminology
 - i. Safety assurance
 - ii. Focus Four
 - iii. Inspections
 - iv. Training
 - v. Occupational Safety and Health Administration OSHA
 - vi. Emergency plans
 - vii. Tool box talks
 - viii. Compliance
 - ix. Safety and Health Committees
 - x. Citations
 - xi. Form 300
 - xii. Form 301
 - xiii. Competent person
 - xiv. Environmental sampling
 - xv. Communication
 - xvi. Safety data sheet
 - xvii. Job hazard analysis
 - xviii. Immersion foot
 - b. Safety, training and accountability
 - i. Training
 - 1. OSHA 10
 - 2. OSHA 30
 - 3. Safety issue identification
 - a. Fall hazards
 - b. Struct by
 - c. Caught between
 - d. Electrocution
 - e. Personal protective equipment PPE
 - f. Blood borne pathogens
 - ii. Safety accountability
 - 1. Demonstrate by example
 - a. Proper PPE
 - b. Adherence to OSHA
 - c. Equipment inspection
 - 2. Enforcement of policies
 - a. Verbal warnings
 - b. Dismissal
 - 3. Positive recognition
 - c. Safety issues: methods and implementation
 - i. Methods of identification
 - 1. Tool box safety talks
 - 2. Inspections
 - 3. Job hazard analysis
 - 4. Safety and health committees
 - ii. Implementation
 - 1. Personal safety
 - 2. Protection of equipment and property
 - 3. General public protection

- 4. Environmental
- 5. Cost savings
- d. Safety issues and planning
 - i. Emergency
 - 1. Fire
 - 2. Work place violence
 - 3. Medical emergency/abatement
 - 4. Safety regulations
 - 5. Evacuation
 - ii. Traffic control
 - 1. Device placement
 - a. Signage
 - b. Sign spacing
 - 2. Lighting
 - 3. Delineation
 - 4. Channelization
 - a. Cones
 - b. Drums
 - c. Barricades
 - d. Tubular markers
 - iii. Weather factors
 - 1. Heat related
 - a. Stress
 - b. Stroke
 - c. Exhaustion
 - d. Hydration
 - 2. Cold related effects
 - a. Hypothermia
 - b. Numbness
 - c. Frost bite
 - d. Immersion foot
 - 3. Inclement
 - a. Storms
 - b. Tornados
 - c. Snow
 - d. Ice
- e. Foreman responsibilities
 - i. Hazardous chemical awareness
 - 1. Safety data sheet access
 - 2. Safety data sheet information awareness
 - ii. Communication with workers
 - 1. Worker protection
 - 2. Hazardous waste containment
 - 3. First aid protocol
 - 4. Reporting procedure
 - iii. Accident preparedness
 - iv. Tool box talk
 - 1. Weekly
 - 2. Work related
 - 3. Inner-active
- f. OSHA compliance: Safety and Promotion
 - i. Safety
 - 1. Direct involvement
 - 2. Worker input
 - 3. Safe work practices
 - 4. Enforcement
 - 5. Regular inspections
 - ii. Promotion

1. Worker participation in meetings
 2. Safety first attitude
 3. Welcome worker input
 - g. OSHA form 300 versus 301
 - i. Form 300
 1. Track all accidents
 2. Summary
 3. Completion by injured worker and supervisor
 - ii. Form 301
 1. Comprehensive accident report
 2. Maintained by employer
 - iii. Jobsite safety and evaluation
 1. Report creation
 - a. Identify potential problems
 - b. Planning stages
 2. Document maintenance
 - a. Five year recordkeeping
 - b. Completed and maintained by employer
 - h. Competent person
 - i. Designated by employer
 - ii. Authorization
 1. Identify safety violations
 2. Correct safety issues
 3. Stop work authority
 4. Trained worker on site
 - iii. Position requirements
 1. Experience
 2. Safety hazard knowledge
 3. Knowledge of specific hazard per work scope
 4. Employer granted authority
 - i. Environmental sampling protection
 - i. Fuel/chemical spills
 - ii. Hazardous atmosphere
 - iii. Air: filtration
 - iv. Water: containment
 - v. Soil: removal and restoration
3. Documentation and record keeping
- a. Terminology
 - i. Daily log
 - ii. Job progress chart
 - iii. Daily construction report
 - iv. Punch list
 - v. Material report
 - vi. Equipment
 - vii. Construction cost
 - viii. Time card
 - ix. Accident report
 - x. Change order
 - xi. Delay notice
 - xii. Back charge
 - b. Job related documents /maintenance
 - i. Payment
 1. Bill out
 2. Payment receiver
 - ii. Job progress/schedule
 - iii. Accident investigation
 - iv. Disputes

1. Contractor
2. Supplier
3. Owners
- v. Project estimations
- vi. Quality assurance
 1. Material quantity
 2. Material quality
- c. Document type
 - i. Daily log
 - ii. Construction report
 - iii. Job progress chart
 - iv. Punch list
- d. Daily log
 - i. Conditions
 1. Site
 2. Weather
 - ii. Subcontractor progress
 - iii. Job problems/delays
 - iv. Discussions/meetings
 - v. Work completed
 1. Worker count
 2. Site visitors
- e. Jobsite material and equipment
 - i. Daily material report
 1. Delivery record
 2. Material usage
 - a. Where
 - b. How
 - ii. Equipment report
 1. Equipment type/size
 2. Pieces
 3. Cost per hour
 4. Hours of use
 5. Daily cost
- f. Cost codes
 - i. Accounting department
 - ii. Total hours/equipment piece
 - iii. Specific to contractor
 - iv. Future estimates
4. Project planning and management
 - a. Terminology
 - i. Critical path
 - ii. Gantt chart
 - iii. Positive float
 - iv. Negative float
 - v. Resource allocation
 - vi. Daily schedule
 - vii. Hourly schedule
 - viii. Compliance
 - ix. Daily briefing
 - x. Production meeting
 - xi. Bulk materials
 - xii. Inspection
 - xiii. Scope of work
 - xiv. Change order
 - xv. P-K hub
 - b. Gantt Chart vs critical path

- i. Gantt Chart
 - 1. Time scale
 - a. Visual
 - b. Horizontal
 - 2. Bar identification
 - a. Start date
 - b. Finish date
 - 3. Task breakdown
 - a. Start
 - b. finish
 - c. duration
 - 4. advantages
 - a. simple
 - b. easily understood
 - 5. disadvantage
 - a. lack of task priority
 - b. critical path not distinguished
- ii. critical path
 - 1. sophisticated project scheduling model
 - 2. work sequence description
 - 3. order of task operation
 - 4. resource flexibility
- c. delivery schedule: Material and Labor
 - i. importance
 - 1. down time prevention
 - 2. task completion/on task schedule
 - 3. adequate storage area
 - 4. material delivery schedule
 - ii. estimating
 - iii. responsibility delegation
- d. look ahead schedules
 - i. function
 - 1. trade identification
 - 2. task assignment
 - 3. project efficiency
 - ii. project conditions
 - 1. weather
 - 2. delays
 - a. material
 - b. equipment
 - 3. unforeseen conditions
 - a. soil
 - b. excavations
 - c. hazardous waste
 - iii. construction mistakes/re-builds
 - iv. early completions
 - v. hourly schedules
- e. project schedule deterrents
 - i. work scope changes
 - ii. work change order
 - iii. material and equipment delays
 - iv. addendums
 - v. insufficient labor
- f. reduction in costs
 - i. pre-planning
 - ii. advanced layout
 - 1. PK elevations
 - 2. Property lines
 - 3. Building lines
 - iii. Short term scheduling

1. Daily
 2. Weekly
 - iv. Optimum crew size assignments
 - v. Labor control
 1. Manual
 2. Tools
 3. Equipment
 4. Work assignment control
 - g. Performance inspections: Foreman responsibilities
 - i. Task familiarity
 - ii. Record keeping
 1. Daily
 2. Site conditions
 - iii. Proactive
 - iv. Site safety
 - h. Compliance: job safety/quality of workmanship
 - i. Job safety
 1. Workforce awareness
 2. Planning
 3. Environmental compliance
 4. Industry/project agreement compliance
 - ii. Workmanship
 1. Certifications
 2. Training
 3. Industry standards
 4. Documentation
 5. Finish product
 - i. Meetings: job harmony/scheduling materials
 - i. Pre-construction
 1. Plan review
 2. Scope of work
 3. Job cost estimate
 - ii. Daily
 1. Schedule
 2. Tasks and objectives
 - iii. Tool box
 1. Safety compliance
 2. Documentation
 - iv. Production
 1. Weekly
 2. Suppliers and inspections
 3. Assignment review
 4. Work quality
 5. Recommendation
 - a. Schedule/schedule change
 - b. Problem resolution
 - v. Post construction review
 1. Personnel
 - a. Superintendent
 - b. Foreman
 2. Job critique
 3. Future planning
 - j. Material storage principles
 - i. Similar materials
 - ii. Staging area prioritization
 - iii. Maintenance are designation
5. Employee supervision

- a. Jobsite orientation
 - i. Company policies
 - 1. Jobsite smoking
 - 2. Drugs and alcohol
 - 3. Personal conduct
 - 4. Work hazards/breaks employee training
 - ii. Safety
 - 1. Supervision
 - 2. PPE
 - 3. Reporting
 - 4. Hazardous materials
 - 5. Safety and health committees
 - iii. Emergency procedures
 - 1. Evacuation routes
 - 2. Notification form
 - 3. Employee accounting
- b. Employee violations
 - i. Safety
 - 1. PPE
 - 2. OSHA site specific
 - 3. Improper reporting
 - a. Illness
 - b. Accident
 - c. Injury
 - ii. Conduct
 - 1. Theft
 - 2. Time card falsification
 - 3. Drug and alcohol
 - 4. Workplace violence
 - 5. Insubordination
 - 6. Smoking violation
 - 7. Excessive absenteeism
 - 8. Unsatisfactory performance
 - 9. Horseplay
 - iii. Harassment
 - 1. Sexual
 - 2. Race
 - 3. Religion
 - 4. Age
 - 5. Gender
 - iv. Consequences
 - 1. Termination
 - 2. Prosecution
 - 3. Time off
 - 4. Fines
 - 5. Personal injury
- c. Common goals
 - i. Teamwork
 - 1. Skill assigned
 - 2. Shared ownership/accountability
 - 3. Open communication
 - 4. Trust
 - ii. Leadership
 - 1. Opportunity creation
 - 2. Provides equipment
 - 3. Blame free
 - 4. Shares credit
 - iii. Fairness

1. Nepotism
2. Equal opportunity
3. Overtime assignment
- iv. Common goals
 1. Safety
 2. Project completion
 3. Pride in workmanship
- d. Feedback
 - i. Behavioral focus
 - ii. Alternative suggestions
 - iii. Behavioral change
 - iv. Specific explanation
 - v. Effective immediately
 - vi. Receptive messaging
 - vii. Positive and negative effects
- e. Coaching vs. discipline
 - i. Coaching
 1. Tutoring
 2. Verbal
 3. Demonstrative
 4. Performance based
 5. Immediate feedback
 6. Short term
 7. Job performance
 - ii. Discipline
 1. Misconduct
 2. Performance issues
 3. Excessive violations
 4. Consistent application
 5. Fairness
- f. Behavioral problems
 - i. Types
 1. Attitude
 2. Absenteeism
 3. Harassment
 4. Personality flaws
 - ii. Effects
 1. Dissention
 2. Production
 3. Morale
 4. Jobsite injury
 5. Worker conflicts
 - iii. Resolution
 1. Fair
 2. Immediate
 3. Consistent
- g. Mentoring vs. coaching
 - i. Mentoring
 1. Relationship oriented
 2. Long term effect
 3. Career development specific
 - ii. Coaching
 1. Task oriented
 2. Short term
 3. Job performance specific
- h. Worker motivation

- i. Motivation
 - 1. External
 - a. Disciplinary
 - b. Personal consequence
 - 2. Internal
 - a. Group success
 - b. Self-accomplishment
 - c. Self-rewarding
 - ii. Listening skills
 - 1. Communication
 - 2. Decision making
 - 3. Message understanding
 - 4. Attentive
 - 5. Open minded
 - 6. Avoid interruptions
 - 7. Eye contact
 - 8. Feedback
 - iii. Rewards
 - 1. Monetary
 - 2. Special recognition
 - 3. Time off
 - 4. Special awards
 - 5. Personal growth opportunity
 - i. Conflict and resolution
 - i. Conflict
 - 1. Causes
 - a. Misunderstanding
 - b. Miscommunication
 - c. Solution disagreement
 - d. Expectation differences
 - e. Organizational confusion
 - f. Poorly defined roles
 - g. Low productivity
 - h. Unresolved conflicts
 - 2. Policy enforcement
 - ii. Resolution
 - 1. Time based
 - 2. Foreman
 - a. Avoid direct involvement
 - b. Assigned responsibility
 - c. Direct address of conflict
 - 3. Communication
 - 4. Chain of command
 - 5. Follow-up on resolution
 - 6. Respectful
 - iii. Monitoring
 - 1. Timely
 - 2. Follow thru on actions
6. Communication: listening and reporting
- a. Communication
 - i. Listening skills
 - 1. Concentration on speaker
 - 2. Eye contact
 - 3. Positive body language
 - 4. Avoid distractions
 - 5. Open mind
 - 6. Judge content
 - 7. Reserve questions
 - 8. Fact check

- ii. Barriers
 1. Internal distractions
 2. External
 - a. Cell phone
 - b. Jobsite noise
 3. Impatience
 4. False assumptions
 5. Speaker interruptions
 6. Message conveyance
 7. Bias
 8. Anticipated message
- b. Miscommunication problems and resolution
 - i. Problems
 1. Personal injury
 2. Workforce injury
 3. Physical damage
 4. Safety violations
 5. Lost time
 6. Rework
 - ii. Resolution
 1. Clear instructions
 2. Task clarification
 3. State specific procedures
 4. Worker input
 5. Good questioning
 6. Explanation of tasks
 7. Instruction confirmation
 8. Progress checks
- c. Conversation management
 - i. Assertiveness and composure
 1. Free of profanity
 2. Clear point of view
 3. Stated intentions
 4. Acknowledgement statement
 - ii. Open ended questions
 1. Problem solving
 2. Information gathering
 3. Inclusive
 - iii. Summarization
 1. Facts
 2. Procedures
 3. Objectives
- d. Fact stating
 - i. Clarity
 - ii. Improved comprehension
 - iii. Understandable
 - iv. Avoid redundancy
 - v. Concise verbiage
 - vi. Avoid misinterpretation
- e. Written communication forms
 - i. E-mail
 - ii. Memo
 - iii. Text messaging
 - iv. Reports
 1. Work
 2. Tools
 3. Materials
 4. Time sheets
- f. Message conveyance

- i. Informational
 - 1. Activity tracking
 - 2. Compliance
 - 3. Weather
 - 4. Equipment
 - 5. Personnel
 - 6. Progress
- ii. Analytical
 - 1. Compilation of reports
 - 2. Fact interpretation
 - 3. Recommendations
 - 4. Completion projections
 - 5. Forms
 - a. Memo
 - b. Letter
 - c. Stand alone report

Resources

LIUNA Training and Education Fund. *Foreman Training*. Current. LIUNA Training and Education Fund 37 Deerfield Road, Pomfret CT 06259, January '17.

Marlene Caroselli. *Leadership Skills for Managers*. Current. New York City, NY; McGraw Hill Publishers, 2000.

William Dow and Bruce Taylor. *Project Management Communication Tools*. Current. Renton, VA; Dow Publishing LLC, 2015.

John C. Maxwell. *Developing the Leaders Around You*. Current. Nashville, TN: Harper Collins Leadership Publishing, 1995.

Resources Other

<https://www.firemanshipconference.com>

<https://www.ilca.net/foremanship-seminar> (<https://www.ilca.net/foremanship-seminar/>)

https://www.managementstudyguide.com/techniques_scientificmanagement.htm

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