Module One (75101-13) presents basic safety concepts and explains the difference between regulatory compliance and best practices. It also introduces OSHA and explains how accidents affect everyone on a job site. It provides an overview of common job-site hazards, including walking and working surfaces, temperature extremes, fire prevention, and tool safety. Finally, it identifies the elements of a hazard communication system and describes the types of information found on a product’s safety data sheet (SDS).

**Objectives**

**Learning Objective 1**
- Explain the difference between compliance and best practices.
  - Explain the purpose and function of the Occupational Safety and Health Administration (OSHA).
  - Explain how accident costs affect everyone on a job site.

**Learning Objective 2**
- Describe the common types of personal protective equipment (PPE) used on construction sites.
  - Describe how to properly use and care for PPE.

**Learning Objective 3**
- Explain the hazards associated with walking and working surfaces.
  - Describe how to avoid accidents on walking and working surfaces.

**Learning Objective 4**
- Identify the hazards associated with working in hot and cold weather and the precautions for minimizing these hazards.
  - Describe symptoms of heat-related illnesses.
  - Describe symptoms of cold-related illnesses.

**Learning Objective 5**
- Explain the requirements for fire prevention and firefighting.
  - Identify the typical fuel sources and sources of ignition found on a construction site.
  - Identify types and classes of fire extinguishers, and describe how they are used.

**Learning Objective 6**
- Describe hand and power tool safety requirements.
  - Explain how to minimize the risks associated with hand tools.
  - Explain how to minimize the risks associated with power tools.

**Learning Objective 7**
- Identify the elements of a hazard communication system.
  - Interpret the labels on various materials.
  - Identify information on a safety data sheet (SDS).

**Performance Tasks**

**Performance Task 1 (Learning Objective 5)**
- Identify types and classes of fire extinguishers.

**Performance Task 2 (Learning Objective 6)**
- Demonstrate how to safely operate hand tools.

**Performance Task 3 (Learning Objective 6)**
- Demonstrate how to safely operate power tools.

**Teaching Time: 10 hours**

(Four 2.5-Hour Classroom Sessions)

Session time may be adjusted to accommodate your class size, schedule, and teaching style.

**Before You Begin**

As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from www.nccerirc.com. The passing score for submission into NCCER’s Registry is 70% or above for the written examination; performance testing is graded pass or fail.
Safety Considerations
This module may require that participants visit job sites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

Classroom Equipment and Materials
- Whiteboard/chalkboard
- Markers/chalk
- Pencils and paper
- Field Safety PowerPoint® Presentation Slides
- DVD player
- LCD projector and screen
- Computer
- Copies of the Module Examination and Performance Profile Sheets
- Warning labels and signs
- Safety Data Sheets (SDSs) for various products

Equipment and Materials for Laboratories and Performance Testing
- Various types of PPE, including respirators, safety goggles, hard hats, hearing protection, and work gloves
- Several fire extinguishers of different classes
- Hand tools, including a hammer, screwdrivers, wrenches, chisel, wedge, box cutter, and punch
- Nails and scrap wood
- Power tools, including a drill, circular saw, and sander

Additional Resources
This module presents thorough resources for task training. The following resource material is suggested for further study.


There are a number of online resources available for participants who would like more information on basic safety topics. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to basic safety and add them to the PowerPoint® presentation throughout the program.
Session Outline for 75101-13

INTRODUCTION TO SAFETY

The Lesson Plan for this module is divided into four 2.5-hour classroom sessions. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

SESSION ONE

Session One covers the purpose and function of OSHA, accident costs, and various types of PPE.

1. Show the Session One PowerPoint® presentation.
2. Use the Kickoff Activity to get participants engaged and focused on the safety hazards found on a typical job site.
3. Discuss the difference between compliance and best practices.
4. Explain the purpose and function of OSHA.
5. Explain how accident costs affect everyone on a job site.
6. Describe common types of PPE used on construction sites.

SESSION TWO

Session Two covers walking and working surfaces and working in hot and cold weather conditions.

1. Show the Session Two PowerPoint® presentation.
2. Discuss the hazards associated with walking and working surfaces.
3. Describe the symptoms of heat-related illnesses.
4. Describe the symptoms of cold-related illnesses.

SESSION THREE

Session Three covers fire prevention and firefighting.

1. Show the Session Three PowerPoint® presentation.
2. Explain how to identify typical fuel sources and sources of ignition on a job site.
3. Identify various types and classes of fire extinguishers and explain how they are used.
4. Have the participants identify types and classes of fire extinguishers to satisfy Performance Task 1.

SESSION FOUR

Session Four covers the safe use of hand and power tools. It also explains how to use a product’s SDS to find various types of safety information. This session also includes module review and testing. Have participants complete the Module Review Questions. Go over the Module Review Questions in class prior to the exam and answer any questions that the participants may have.

1. Show the Session Four PowerPoint® presentation.
2. Explain how to minimize risks associated with hand tools.
3. Explain how to minimize risks associated with power tools.
4. Demonstrate the safe operation of various hand and power tools.
5. Have the participants demonstrate how to safely operate hand and power tools to satisfy Performance Tasks 2 and 3.
6. Identify the elements of a hazard communication system.
7. Demonstrate how to use a product’s SDS to identify various types of safety information.
8. Have participants complete the written examination.
9. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor.
Module Two (75120-13) covers safety precautions related to work in confined spaces, including the responsibilities and duties of each member of the confined-space entry team. It also covers the safety hazards and safeguards required when working in an excavation, including an explanation of various trenching supports and soil types.

**Objectives**

**Learning Objective 1**
- Identify the safety requirements for working in confined spaces.
  - Define confined-space classifications.
  - Explain the purpose of a confined-space entry permit.
  - Describe the hazards associated with working in confined spaces.
  - Identify the responsibilities and duties of each person on a confined-space entry team.
  - Identify the safeguards required when working in a confined space.

**Learning Objective 2**
- Describe the safety requirements for excavations.
  - Identify the safety hazards and safeguards associated with excavations.
  - Identify the safeguards required when working in an excavation.
  - Describe the procedures used in trench shoring, sloping, and shielding.
  - Identify the sloping requirements for different soil types.

**Performance Tasks**

**Performance Task 1 (Learning Objective 1)**
- Demonstrate how to fill out a confined-space entry permit.

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**Teaching Time: 5 hours** *(Two 2.5-Hour Classroom Sessions)*  
Session time may be adjusted to accommodate your class size, schedule, and teaching style.

**Before You Begin**

As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from www.nccerirc.com. The passing score for submission into NCCER's Registry is 70% or above for the written examination; performance testing is graded pass or fail.
Safety Considerations
This module may require that participants visit job sites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

Classroom Equipment and Materials
Whiteboard/chalkboard
Markers/chalk
Pencils and paper
Field Safety PowerPoint®
Presentation Slides
DVD player
LCD projector and screen
Computer
Copies of the Module Examination and Performance Profile Sheets

Equipment and Materials for Laboratories and Performance Testing
Copies of blank Confined-Space Entry Permits

Additional Resources
This module presents thorough resources for task training. The following resource material is suggested for further study.


There are a number of online resources available at www.osha.gov for participants who would like more information on confined spaces and excavations. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to confined spaces and excavations and add them to the PowerPoint® presentation throughout the program.
The Lesson Plan for this module is divided into two 2.5-hour classroom sessions. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

**SESSION ONE**

Session One covers the safety hazards and precautions required when working in confined spaces.

1. Show the Session One PowerPoint® presentation.
2. Use the Kickoff Activity to get participants engaged and focused on the potential hazards of confined spaces.
3. Discuss confined space classifications.
4. Demonstrate how to fill out a confined-space entry permit and have the participants fill out a confined-space entry permit to satisfy Performance Task 1.
5. List the responsibilities of each member of the confined-space entry team.
6. Describe the safeguards required when working in confined spaces.

**SESSION TWO**

Session Two covers the safety hazards and precautions required when working in excavations. This session also includes module review and testing. Have participants complete the Module Review Questions. Go over the Module Review Questions in class prior to the exam and answer any questions that the participants may have.

1. Show the Session Two PowerPoint® presentation.
2. Discuss the safety hazards associated with work in excavations.
3. Discuss the safeguards required when working in excavations.
4. Review the procedures used in trench shoring, sloping, and shielding.
5. Explain the sloping requirements for different types of soil.
6. Have participants complete the written examination.
7. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor.
Module Three (75104-13) introduces the signs, signals, and barricades found on various job sites. It also covers highway work-zone safety requirements.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Performance Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning Objective 1</strong></td>
<td><strong>Performance Task 1 (Learning Objective 2)</strong></td>
</tr>
<tr>
<td>• Identify signs, signals, and barricades used on a job site.</td>
<td>• Demonstrate how to properly use traffic control devices.</td>
</tr>
<tr>
<td>– Identify the meaning of various signs.</td>
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<tr>
<td>– Identify the meaning of audible signals.</td>
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<tr>
<td>– Identify the meaning of barricades.</td>
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<tr>
<td><strong>Learning Objective 2</strong></td>
<td></td>
</tr>
<tr>
<td>• Identify highway work-zone safety requirements.</td>
<td></td>
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<tr>
<td>– Describe the use of temporary traffic control.</td>
<td></td>
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<tr>
<td>– Identify the responsibilities of a flagger.</td>
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<tr>
<td>– List the requirements for moving equipment safely.</td>
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</tbody>
</table>

**Teaching Time: 5 hours**
(Two 2.5-Hour Classroom Sessions)
Session time may be adjusted to accommodate your class size, schedule, and teaching style.

**Before You Begin**
As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from www.nccerirc.com. The passing score for submission into NCCER’s Registry is 70% or above for the written examination; performance testing is graded pass or fail.
**Safety Considerations**
This module may require that participants visit job sites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

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### Classroom Equipment and Materials
- **Whiteboard/chalkboard**
- **Markers/chalk**
- **Pencils and paper**
- **Field Safety PowerPoint® Presentation Slides**
- **DVD player**
- **LCD projector and screen**
- **Computer**
- **Copies of the Module Examination and Performance Profile Sheets**

### Equipment and Materials for Laboratories and Performance Testing
- **Hard hat**
- **Hearing protection**
- **Reflective vest(s)**
- **Traffic control devices, including barriers/cones, flags, and a STOP/SLOW paddle**

### Equipment and Materials for Laboratories and Performance Testing

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### Additional Resources
This module presents thorough resources for task training. The following resource material is suggested for further study.

- **Signs, Signals, and Barricades – Subpart G PowerPoint®, [www.osha.gov](http://www.osha.gov).**
- **Work-Zone Safety PowerPoint®, [www.osha.gov](http://www.osha.gov).**

There are a number of online resources available at [www.osha.gov](http://www.osha.gov) for participants who would like more information on work-zone safety. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to work-zone safety and add them to the PowerPoint® presentation throughout the program.
The Lesson Plan for this module is divided into two 2.5-hour classroom sessions. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

**SESSION ONE**

Session One covers the safety hazards and precautions required in work zones.
1. Show the Session One PowerPoint® presentation.
2. Use the Kickoff Activity to get participants engaged and focused on signs, signals, and barricades.
3. Identify the meaning of various signs, signals, and barricades that may be found on a job site.

**SESSION TWO**

Session Two covers the safety hazards and precautions required when working on public highways and job sites. This session also includes the module review and testing. Have participants complete the Module Review Questions. Go over the Module Review Questions in class prior to the exam and answer any questions that the participants may have.
1. Show the Session Two PowerPoint® presentation.
2. Discuss the requirements for temporary traffic control (TTC).
3. Explain the responsibilities of a flagger.
4. Review the safeguards for moving heavy equipment on public highways and job sites.
5. Demonstrate the use of traffic control devices and have the participants demonstrate how to properly use traffic control devices to satisfy Performance Task 1.
6. Have participants complete the written examination.
7. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor.
Module Four (75121-13) describes the basic precautions necessary to avoid electrical shock, arc, and blast hazards. It also describes the lockout/tagout procedure.

### Objectives

#### Learning Objective 1
- Identify the risks associated with working around electricity.
  - Describe the effects of electrical shock, arc, and blast.
  - Describe common power cord hazards.
  - Describe the hazards of working near overhead lines.
  - Explain how to minimize the risks associated with work around electricity.

#### Learning Objective 2
- Describe the lockout/tagout procedure for all energy sources associated with a device or process.
  - Identify the steps in a typical lockout/tagout procedure.
  - Identify situations under which emergency removal of a lockout may be required.

### Performance Tasks

#### Performance Task 1 (Learning Objective 2)
- Demonstrate how to properly use a lockout/tagout device.

### Teaching Time: 5 hours
(Two 2.5-Hour Classroom Sessions)
Session time may be adjusted to accommodate your class size, schedule, and teaching style.

### Before You Begin
As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from www.nccerirc.com. The passing score for submission into NCCER’s Registry is 70% or above for the written examination; performance testing is graded pass or fail.
**Safety Considerations**

This module may require that participants visit job sites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

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**Classroom Equipment and Materials**

- Whiteboard/chalkboard
- Markers/chalk
- Pencils and paper
- *Field Safety PowerPoint® Presentation Slides*
- DVD player
- LCD projector and screen
- Computer
- Copies of the Module Examination and Performance Profile Sheets

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**Equipment and Materials for Laboratories and Performance Testing**

- Portable electric drill with grounded plug
- Access to a de-energized panelboard
- Locks and tags

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**Additional Resources**

This module presents thorough resources for task training. The following resource material is suggested for further study.


There are a number of online resources available for participants who would like more information on electrical safety. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to electrical safety and add them to the PowerPoint® presentation throughout the program.
The Lesson Plan for this module is divided into two 2.5-hour classroom sessions. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

**SESSION ONE**

Session One covers the safety hazards and precautions required when working around electricity.

1. Show the Session One PowerPoint® presentation.
2. Use the Kickoff Activity to get participants engaged and focused on the potential hazards of electricity.
3. Discuss the effects of electrical shock, arc, and blast.
4. Describe common power cord hazards.
5. Discuss the hazards of working near overhead lines.
6. Explain the precautions necessary to minimize risks when working around electricity.

**SESSION TWO**

Session Two covers the lockout/tagout procedure. This session also includes the module review and testing. Have participants complete the Module Review Questions. Go over the Module Review Questions in class prior to the exam and answer any questions that the participants may have.

1. Show the Session Two PowerPoint® presentation.
2. Discuss the importance of lockout/tagout when working near any energy sources.
3. Demonstrate the lockout/tagout procedure.
4. Explain what measures must be taken for emergency removal of a lockout/tagout device.
5. Demonstrate how to properly use a lockout/tagout device to satisfy Performance Task 1.
6. Have participants complete the written examination.
7. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor.
Lesson Plans for Module 75122-13

Module Five (75122-13) explains the use of fall-protection equipment. It also covers safety precautions related to elevated work surfaces, including ladders, scaffolding, and aerial lifts.

Objectives

Learning Objective 1
• Identify various types of fall-protection equipment.
  – Explain the safety guidelines for personal fall-arrest systems.
  – Explain the safety guidelines for other fall-protection systems.

Learning Objective 2
• Identify the safety guidelines for the use of ladders and scaffolding.
  – State the safety requirements for various ladders.
  – State the safety requirements for scaffolding.

Learning Objective 3
• State the guidelines for the safe operation of aerial lifts.
  – Identify aerial lift components and operating requirements.
  – Describe the safe operation of scissor lifts.
  – Describe the safe operation of boom lifts.

Performance Tasks

Performance Task 1 (Learning Objective 1)
• Demonstrate how to properly inspect and don fall-protection equipment.

Performance Task 2 (Learning Objective 2)
• Demonstrate how to properly inspect a ladder.

Teaching Time: 5 hours
(Two 2.5-Hour Classroom Sessions)
Session time may be adjusted to accommodate your class size, schedule, and teaching style.

Before You Begin
As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from www.nccerirc.com. The passing score for submission into NCCER’s Registry is 70% or above for the written examination; performance testing is graded pass or fail.
**Safety Considerations**
This module may require that participants visit job sites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

**Classroom Equipment and Materials**
- Whiteboard/chalkboard
- Markers/chalk
- Pencils and paper
- *Field Safety PowerPoint® Presentation Slides*
- DVD player
- LCD projector and screen
- Computer
- Copies of the Module Examination and Performance Profile Sheets

**Equipment and Materials for Laboratories and Performance Testing**
- Hard hat
- Safety glasses
- Work gloves
- Personal fall-arrest system
- Lanyards with and without shock absorber
- Rope grab
- Lifeline
- Anchor point
- Double-locking snap hook
- Carabiners
- Various ladders, both damaged and undamaged

**Additional Resources**
This module presents thorough resources for task training. The following resource material is suggested for further study.


There are a number of online resources available for participants who would like more information on safely working from elevations. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to working from elevations and add them to the PowerPoint® presentation throughout the program.
The Lesson Plan for this module is divided into two 2.5-hour classroom sessions. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

**SESSION ONE**

Session One covers the safety hazards and precautions required when using fall-protection equipment.

1. Show the Session One PowerPoint® presentation.
2. Use the Kickoff Activity to get participants engaged and focused on the hazards of work at elevation.
3. Explain the safety guidelines for personal fall-arrest systems.
4. Demonstrate how to inspect and don fall-protection equipment and have the participants demonstrate how to properly inspect and don fall-protection equipment to satisfy Performance Task 1.
5. Explain the safety guidelines for other fall-protection systems.

**SESSION TWO**

Session Two covers the safety hazards and precautions required when working with ladders, scaffolds, and aerial lifts. This session also includes the module review and testing. Have participants complete the Module Review Questions. Go over the Module Review Questions in class prior to the exam and answer any questions that the participants may have.

1. Show the Session Two PowerPoint® presentation.
2. Identify the safety requirements for various ladders.
3. Demonstrate how to inspect a ladder and have the participants demonstrate how to properly inspect a ladder to satisfy Performance Task 2.
4. Identify the safety requirements for scaffolding.
5. Identify aerial lift components and their operating requirements.
6. Describe the safe operation of scissor lifts.
7. Describe the safe operation of boom lifts.
8. Have participants complete the written examination.
9. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor.
Module Six (75110-13) covers common safety precautions related to steel-erection work, including controlled decking zones, hazardous materials and equipment precautions, tool safety, and appropriate personal protective equipment.

**Objectives**

**Learning Objective 1**

- Identify the safety concerns related to steel erection.
  - Identify common safety hazards associated with steel-erection jobs.
  - Explain the safeguards that are required to prevent injury and equipment/property damage.

<table>
<thead>
<tr>
<th>Performance Tasks</th>
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<tbody>
<tr>
<td>This is a knowledge-based module; there are no performance tasks.</td>
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</tbody>
</table>

**Teaching Time: 2.5 hours**

(One 2.5-Hour Classroom Session)

Session time may be adjusted to accommodate your class size, schedule, and teaching style.

**Before You Begin**

As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from www.nccerirc.com. The passing score for submission into NCCER’s Registry is 70% or above for the written examination; performance testing is graded pass or fail.
Safety Considerations
This module may require that participants visit job sites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

Classroom Equipment and Materials
Whiteboard/chalkboard
Markers/chalk
Pencils and paper
Field Safety PowerPoint® Presentation Slides
DVD player
LCD projector and screen
Computer
Copies of the Module Examination

Additional Resources
This module presents thorough resources for task training. The following resource material is suggested for further study.


There are a number of online resources available for participants who would like more information on steel erection. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to the steel-erection trade and add them to the PowerPoint® presentation throughout the program.
Session Outline for 75110-13

STEEL ERECTION

The Lesson Plan for this module covers one 2.5-hour classroom session. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

SESSION ONE

Session One covers the safety hazards and precautions related to steel-erection work.

1. Show the Session One PowerPoint® presentation.

2. Use the Kickoff Activity to get participants engaged and focused on the potential hazards of steel-erection work.

3. Identify common safety hazards associated with steel-erection jobs.

4. Explain the safeguards that are required to prevent injury and equipment/property damage.

5. Have participants complete the written examination.

6. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor.
Module Seven (75123-13) covers the safety hazards and precautions necessary when working near heavy equipment. It also covers the general safety requirements for the use of forklifts and cranes.

**Objectives**

**Learning Objective 1**
- Explain the general guidelines for working safely around heavy equipment.
  - State the general guidelines for job-site safety.
  - State the guidelines for the safe operation of heavy equipment.

**Learning Objective 2**
- Explain the general guidelines for forklift safety.
  - Describe the safe operation of a forklift.
  - State the general guidelines for safe load handling.

**Learning Objective 3**
- Explain the general guidelines for crane safety.
  - State the guidelines for working safely around power lines.
  - Describe various site hazards and restrictions.

**Performance Tasks**
This is a knowledge-based module; there are no performance tasks.

**Teaching Time: 5 hours**
(Two 2.5-Hour Classroom Sessions)
Session time may be adjusted to accommodate your class size, schedule, and teaching style.

**Before You Begin**
As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from [www.nccerirc.com](http://www.nccerirc.com). The passing score for submission into NCCER’s Registry is 70% or above for the written examination; performance testing is graded pass or fail.
**Safety Considerations**
This module may require that participants visit job sites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

**Classroom Equipment and Materials**
- Whiteboard/chalkboard
- Markers/chalk
- Pencils and paper
- *Field Safety* PowerPoint®
- Presentation Slides
- DVD player
- LCD projector and screen
- Computer
- Copies of the Module Examination

**Additional Resources**
This module presents thorough resources for task training. The following resource material is suggested for further study.


There are a number of online resources available for participants who would like more information on heavy equipment, forklifts, and cranes. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to the safe use of heavy equipment, forklifts, and cranes and add them to the *PowerPoint®* presentation throughout the program.
The Lesson Plan for this module is divided into two 2.5-hour classroom sessions. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

<table>
<thead>
<tr>
<th>SESSION ONE</th>
<th>SESSION TWO</th>
</tr>
</thead>
</table>
| Session One covers the safety hazards and precautions required when working near heavy equipment.  
1. Show the Session One PowerPoint® presentation.  
2. Use the Kickoff Activity to get participants engaged and focused on the hazards of working near heavy equipment and forklifts.  
3. Explain the general guidelines for working safely around heavy equipment.  
4. Discuss the general guidelines for job-site safety.  
5. Discuss the general guidelines for the safe operation of heavy equipment. | Session Two covers the safety hazards and precautions required when working near forklifts and cranes. This session also includes the module review and testing. Have participants complete the Module Review Questions. Go over the Module Review Questions in class prior to the exam and answer any questions that the participants may have.  
1. Show the Session Two PowerPoint® presentation.  
2. Describe the safe operation of a forklift.  
3. Discuss the general guidelines for safe load handling.  
4. Explain the general guidelines for working safely around cranes.  
5. Discuss the general guidelines for working safely around power lines.  
6. Have participants complete the written examination.  
7. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor. |
Module Eight (75119-13) describes the protective personal equipment that must be used when working with concrete and masonry. It also covers the common job-site and health hazards associated with this type of work.

Objectives

Learning Objective 1
• Identify the safety hazards associated with concrete construction and masonry work.
  – Identify proper on-site safety procedures, including the use of personal protective equipment (PPE).
  – Discuss the safety precautions associated with concrete construction.
  – Discuss the safety precautions associated with masonry construction.

Performance Tasks
This is a knowledge-based module; there are no performance tasks.

Teaching Time: 2.5 hours
(One 2.5-Hour Classroom Session)
Session time may be adjusted to accommodate your class size, schedule, and teaching style.

Before You Begin
As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from www.nccerirc.com. The passing score for submission into NCCER’s Registry is 70% or above for the written examination; performance testing is graded pass or fail.
**Safety Considerations**
This module may require that participants visit job sites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

**Classroom Equipment and Materials**
- Whiteboard/chalkboard
- Markers/chalk
- Pencils and paper
- Field Safety PowerPoint® Presentation Slides
- DVD player
- LCD projector and screen
- Computer
- Copies of the Module Examination

**Additional Resources**
This module presents thorough resources for task training. The following resource material is suggested for further study.

Additional information on all aspects of concrete construction can be found at [www.cement.org](http://www.cement.org).

There are a number of online resources available for participants who would like more information on concrete and masonry construction. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to concrete and masonry construction and add them to the PowerPoint® presentation throughout the program.
The Lesson Plan for this module covers one 2.5-hour classroom session. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

### Session One

Session One covers the safety hazards and precautions related to concrete construction and masonry work.

1. Show the Session One PowerPoint® presentation.

2. Use the Kickoff Activity to get participants engaged and focused on the potential hazards of concrete construction and masonry work.

3. Identify common safety hazards associated with concrete construction and masonry work.

4. Explain the safeguards that are required to prevent injury and equipment/property damage.

5. Have participants complete the written examination.

6. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor.
Module Nine (75124-13) explains the safety precautions required when transporting, handling, rigging, stacking, and storing various types of loads. It also covers safe lifting procedures.

Objectives

Learning Objective 1

- Recognize hazards and follow safety procedures required for materials handling.
  - Explain proper lifting procedures.
  - Describe the guidelines for properly stacking and storing materials.
- Select appropriate materials-handling equipment for the task.
  - Describe the safety guidelines when using non-motorized materials-handling equipment.
  - Explain how to minimize the risks when using motorized materials-handling equipment.
  - Identify safety precautions related to rigging.

Performance Tasks

This is a knowledge-based module; there are no performance tasks.

Teaching Time: 5 hours

(Two 2.5-Hour Classroom Sessions)

Session time may be adjusted to accommodate your class size, schedule, and teaching style.

Before You Begin

As you prepare for each session, allow sufficient time to review the course objectives, content, visual aids (including the PowerPoint® presentation), and these lesson plans, and to gather the required equipment and materials. Consider time required for demonstrations, laboratories, field trips, and testing.

Using your access code, download the written examinations and performance profile sheets from www.nccerirc.com. The passing score for submission into NCCER's Registry is 70% or above for the written examination; performance testing is graded pass or fail.
**Safety Considerations**
This module may require that participants visit jobsites. Participants should be carefully observed to ensure that they wear the proper PPE and follow site-specific safety practices.

**Classroom Equipment and Materials**
- Whiteboard/chalkboard
- Markers/chalk
- Pencils and paper
- *Field Safety PowerPoint® Presentation Slides*
- DVD player
- LCD projector and screen
- Computer
- Copies of the Module Examination

**Equipment and Materials for Laboratories and Performance Testing**
- Hard hat
- Safety glasses
- Work gloves
- Boxes, lumber, conduit, and other objects to practice safe lifting procedures
- Labeled boxes to practice stacking and storing
- Various construction materials to practice stacking and storing, including pipes and chocks, bags, bricks, blocks, and blocking

**Additional Resources**
This module presents thorough resources for task training. The following resource material is suggested for further study.


There are a number of online resources available for participants who would like more information on materials handling. A search for additional information may be assigned as homework to interested participants.

Instructors should view any videos that may be identified in the lesson plan before using them to ensure their suitability. The videos can provide teachable moments in both proper and improper work processes and behaviors. Be prepared to stop the videos at appropriate times to point out and discuss both proper and improper conduct and techniques.

Instructors are also encouraged to locate additional audiovisual aids available on the internet, make personal videos, and take photos related to materials handling and add them to the PowerPoint® presentation throughout the program.
The Lesson Plan for this module is divided into two 2.5-hour classroom sessions. This time includes 10 minutes for administrative tasks and a 10-minute break per session.

**Session One**

Session One covers the safety hazards and precautions required when lifting, stacking, and storing materials.

1. Show the Session One PowerPoint® presentation.
2. Use the Kickoff Activity to get participants engaged and focused on the hazards of materials handling.
3. Discuss materials-handling hazards and safety procedures.
4. Demonstrate proper lifting procedures.
5. Demonstrate how to properly carry and unload materials.
6. Demonstrate how to properly stack and store materials.

**Session Two**

Session Two covers the safety hazards and precautions required when working with motorized materials-handling equipment. This session also includes the module review and testing. Have participants complete the Module Review Questions. Go over the Module Review Questions in class prior to the exam and answer any questions that the participants may have.

1. Show the Session Two PowerPoint® presentation.
2. Describe the guidelines for the safe use of various types of non-motorized materials-handling equipment.
3. Explain how to minimize risk when working with various types of motorized materials-handling equipment.
4. Discuss the safety precautions related to rigging.
5. Have participants complete the written examination.
6. Record the testing results on Training Report Form 200, and submit the report to your Training Program Sponsor.