

## Safety & Health Fundamentals Certificate Program for Construction

Participants must complete a minimum of **7** OTI Education courses, comprised of required and elective courses that include a minimum of **68** contact hours of training to earn the certificate in *Safety & Health Fundamentals for Construction*.

- Participants must complete the **3** required courses listed below for a minimum of **39** contact hours of training.
- Participants must complete a minimum of **4** elective courses listed below that include a minimum of **29** contact hours of training.

Required Courses		
Course Number and Title	Course Description	Minimum Contact Hours
OSHA #510 <i>Occupational Safety and Health Standards for the Construction Industry</i>	This course covers OSHA standards, policies, and procedures in the construction industry. Topics include scope and application of the OSHA construction standards, construction safety and health principles, and special emphasis on those areas which are most hazardous.	26
OSHA #7500 <i>Introduction to Safety and Health Management</i>	Using interactive assignments and thought-provoking group projects, students of this one-day workshop come away with a strong understanding of the benefits in implementing a safety and health management system in the workplace.	5.5
OSHA #7505 <i>Introduction to Incident (Accident) Investigation</i>	Introduction to accident investigation provides an introduction to basic accident investigation procedures and describes accident analysis techniques. The goal of the course is to help participants gain the basic skills necessary to conduct an effective accident investigation at their workplace. The target audience is the employer, manager, employee or employee representative who, as part of a firm's safety and health system, would be involved in conducting accident and/or near-miss investigations.	7.5
TOTAL HOURS		39

## Elective Courses for Construction Industry

Course Name and Title	Course Description	Minimum Contact Hours
OSHA #521 <i>OSHA Guide to Industrial Hygiene</i>	This course covers industrial hygiene practices and related OSHA regulations and procedures. Course topics include recognition, evaluation, and control of chemical, physical, biological and ergonomic hazards, Permissible Exposure Limits (PEL), OSHA health standards, respiratory protection, engineering controls, OSHA sampling protocols and strategies, and workplace health program elements. The course features workshops in health hazard recognition, OSHA health standards, and use of sampling equipment. Upon course completion students will have the ability to recognize basic industrial hygiene principles and practices, identify characteristics of common air contaminants, locate PELs, perform basic industrial hygiene calculations, and determine methods for hazard control and abatement.	26
OSHA #2225 <i>Respiratory Protection</i>	This course covers the requirements for the establishment, maintenance, and monitoring of a respiratory protection program. Course topics include terminology, OSHA Respiratory Protection Standards, NIOSH certification, respiratory protection programs, and medical evaluation requirements. Program highlights include workshops on respirator selection, qualitative and quantitative fit testing, and the use of respiratory protection and support equipment. Upon course completion students will have the ability to identify and describe the elements of a respiratory protection program, the proper selection, use, and inspection of respiratory protection, protection factors, and evaluate compliance with OSHA Standards.	26
OSHA #2255 <i>Principles of Ergonomics</i>	This course covers the use of ergonomic principles to recognize, evaluate, and control workplace conditions that cause or contribute to musculoskeletal and nerve disorders. Course topics include work physiology, anthropometry, musculoskeletal disorders, use of video display terminals, and risk factors such as vibration, temperature, material handling, repetition, and lifting and patient transfers in health care. Course emphasis is on industrial case studies covering analysis and design of workstations and equipment workshops in manual lifting, and coverage of current OSHA compliance policies and guidelines. Upon course completion, students will have the ability to recognize work-related musculoskeletal and nerve disorders, assess employer's ergonomic programs, and conduct ergonomic evaluations.	18

## Elective Courses for Construction Industry

Course Name and Title	Course Description	Minimum Contact Hours
OSHA #2264 <i>Permit-Required Confined Space Entry</i>	This course covers the safety and health hazards associated with permit-required confined space entry. Course topics include recognition of confined space hazards, identification of permit and non-permit required confined spaces, use of instrumentation to evaluate atmospheric hazards, ventilation techniques, development and implementation of a confined space program, proper signage, and training requirements. This course features workshops on permit entry classification, instrumentation, and program development. Upon course completion students will have the ability to identify permit and non-permit required confined spaces, reference the OSHA Permit-Required Confined Spaces Standard, conduct atmospheric testing, and implement a permit-required confined space program.	20
OSHA #3085 Principles of Scaffolding	This course covers the requirements for safe construction and use of scaffolding using OSHA's construction scaffold standards as a guide. Course topics include hazards associated with scaffold design, assembly, disassembly and use, types of scaffolds, determining scaffold capacity, employee qualifications and training and maintenance, repair and inspection requirements. Students will participate in workshops to reinforce concepts of safe scaffolding. Upon course completion students will have the ability to identify the types of scaffolds and their components, determine safe assembly, use, and disassembly and recognize common violations of OSHA standards.	22
OSHA #3095 <i>Electrical Standards</i>	This course covers OSHA electrical standards and the hazards associated with electrical installations and equipment. Course topics include; single- and three-phase systems, cord- and plug-connected and fixed equipment, grounding, ground fault circuit interrupters, and safety-related work practices. Emphasis is placed on electrical hazard recognition and OSHA standards, policies, and procedures and applicable portions of the National Electrical Code (NEC). Students will participate in workshops on the safe and correct use of electrical testing equipment. Upon course completion, students will be able to; understand the severity of electrical current on the human body, detect electrical hazards and determine applicable OSHA standard, recognize actual and potential electrical hazards and determine hazard abatement, understand proper use of electrical testing equipment.	26

## Elective Courses for Construction Industry

Course Name and Title	Course Description	Minimum Contact Hours
OSHA #7105 <i>Evacuation and Emergency Planning</i>	Evacuation and emergency planning focuses on OSHA requirements for emergency action plans and fire protection plans. Preparing for emergencies is a basic principle of workplace safety and health. Participants will learn: (1) reasons for emergency action plans and fire prevention plans and when they are required for a workplace; (2) elements of a good evacuation plan; and (3) features of design and maintenance of good exit routes. The optional session for this course will focus on assessment of risk for terrorist attack and how to utilize OSHA's two matrices: (1) evacuation planning and (2) fire and explosion, as tools in planning for emergencies.	4
OSHA #7110 <i>Safe Bolting: Principles and Practices</i>	This course covers awareness of safety issues involved in bolting applications. Course topics include; safe operation and handling of high powered bolting tools, pressure vessels and piping, machinery or mechanical joints, and structural connections. The course provides practical group activities and workshops. Upon course completion, the student will possess the knowledge and skills to recognize hazards present in a bolting application and methods for control and abatement of the hazard.	7
OSHA #7205 <i>Health Hazard Awareness</i>	This course provides an introduction to common health hazards that are encountered in the workplace. These health hazards will include exposure to chemicals, asbestos, silica and lead. The course will feature these topics: identification of hazard; sources of exposure; health hazard information; evaluation of exposure; and engineering and work practice controls. The course materials will include an instructor and student manual; workshops and group activities; and PowerPoint presentations. The course is designed as an awareness course for employers and employees.	6
OSHA #7215 <i>Silica in Construction, Maritime, and General Industries</i>	This course covers the development and implementation of controls and strategies to prevent or mitigate silica exposures in construction, maritime, and general industries. Course topics include describing the requirements of OSHA's Respirable Crystalline Silica standards and recognizing the hazards and risks, assessment options, and exposure control measures associated with silica exposure.	7

## Elective Courses for Construction Industry

Course Name and Title	Course Description	Minimum Contact Hours
OSHA #7400 <i>Occupational Noise Exposure</i>	This course focuses on describing noise hazards in the workplace. The course includes; OSHA occupational noise exposure standards, properties of sound, noise-induced hearing loss, noise exposure control, selection and use of hearing protection, sound level surveys, noise dosimetry, and worker training. Classroom demonstrations of noise instrumentation and hearing protection devices are featured. The target audience is the employer or representative designated with the responsibility to develop a noise program. At the conclusion of this course, students will describe sound properties and their relationship to noise-induced hearing loss, hearing protection usage, and using a sound level meter.	7.5
OSHA #7845 <i>Recordkeeping Rule Seminar</i>	This course covers OSHA requirements for maintaining and posting records of occupational injuries and illnesses, and reporting specific cases to OSHA. Participants who successfully complete this course will be able to identify OSHA requirements for recordkeeping, posting, reporting, and to complete new OSHA forms 300, 300A, and 301.	4

## Elective Courses for Construction Industry

Course Name and Title	Course Description	Minimum Contact Hours
<p>OSHA #7410 <i>Managing Excavation Hazards</i></p> <p style="text-align: center;"><b>OR</b></p> <p>OSHA #3015 <i>Excavation, Trenching, and Soil Mechanics</i></p>	<p>In this one-day course, students will learn about the role and responsibility of the employer to assign a competent person to the excavation site and arm that person with the knowledge to perform the work properly. Topics include the understanding and application of definitions relating to OSHA's Excavation Standard (Subpart P), excavation hazards and control measures, soil analysis techniques, protective system requirements and emergency response. At the conclusion of this course, the participant will understand the importance and duties of a competent person towards excavation work and will have the knowledge and skills that are required to perform those duties.</p> <p>This course focuses on OSHA standards and on the safety aspects of excavation and trenching. Students are introduced to practical soil mechanics and its relationship to the stability of shored and unshored slopes and walls of excavations. Various types of shoring (wood timbers and hydraulic) are covered. Testing methods are demonstrated and a one-day field exercise is conducted, allowing students to use instruments such as penetrometers, torvane shears, and engineering rods.</p>	<p>6.5</p> <p>20</p>
<p>OSHA #7405 <i>Fall Hazard Awareness for the Construction Industry</i></p> <p style="text-align: center;"><b>OR</b></p> <p>OSHA #3115 <i>Fall Protection</i></p>	<p>The focus of this five-hour course is to identify, evaluate, and prevent or control fall hazards at construction sites. The course focuses on falls to a lower level, not falls to the same level resulting from slips and falls. The target audience is the small construction employer, business owner, or manager who would like to obtain information about fall hazards found in the workplace. The training is also suitable for employees and employee representatives. Topics include identifying fall hazards, analyzing fall hazards, and preventing fall hazards as well as OSHA resources addressing fall hazards</p> <p>This course provides an overview of state-of-the-art technology for fall protection and current OSHA requirements. Topics covered include the principles of fall protection, the components of fall arrest systems, the limitations of fall arrest equipment, and OSHA policies regarding fall protection. Course features a one-day field exercise demonstrating fall protection equipment.</p>	<p>5</p> <p>18</p>

<p>OSHA #2264 <i>Permit-Required Confined Space Entry</i></p>	<p>This course is designed to enable students to recognize, evaluate, prevent, and abate safety and health hazards associated with confined space entry. Technical topics include the recognition of confined space hazards, basic information about instrumentation used to evaluate atmospheric hazards, and ventilation techniques. This course features workshops on permit entry classification and program evaluation.</p>	<p>20</p>
<p><b>OR</b></p> <p>OSHA #7300 <i>Understanding OSHA's Permit-Required Confined Space Standard</i></p>	<p>This course covers the requirements of the OSHA Permit-Required Confined Space Standard. Course topics include safety and health hazards associated with confined space entry, and the evaluation, prevention, and abatement of these hazards. The course covers OSHA requirements; it does not feature workshops (instrumentation, control methods and testing) which are included in the OSHA #2264 Permit-Required Confined Space Entry. This course is designed for small employers or a designated representative (line supervisor or manager) with the responsibility to develop a permit-required confined space program. Upon course completion students will have a basic understanding of confined space hazards, evaluating and abatement of the hazards, and determining when a confined space shall be classified as a permit-required confined space.</p>	<p>7</p>