

# Construction Safety Boot Camp 2019

## SAFE-399-01C Construction Boot Camp 1 (4 credits)

Utilizing a combination of subject matter experts/OSHA instructors and SOHAS faculty, this course explores a series of subjects and most frequent causes of accidents and fatalities in the construction industry. Topics include: excavation/trenching, confined space hazards and electrical safety. This course is a blended on-campus and online course. **Classroom sessions will be held May 20-22, 28-30 and June 3-6, with remainder of work online through summer.**

The online assignments will include research and writing on each of the topics of this course. Specifically, the students will be required to research and write a tool box talk, research and develop employee training materials and research and critique a NIOSH Fatality Assessment and Control Evaluation (FACE) report on each of the subjects included in this course.

Prerequisites: SOHAS and CSS majors and minors only.

### Components:

May 20-22, 2019 | Monday - Wednesday

#### **OSHA #3015: Excavation Trenching & Soil Mechanics**

Course Description: 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 field exercise is typically conducted, allowing students to use instruments such as penetrometers, torvane shears, and engineering rods.

May 28-30, 2019 | Tuesday - Thursday

#### **OSHA #2264: OSHA's Permit Required Confined Space Entry**

Course Description: Increase knowledge of hazards associated with permit-required confined space entry in general industry and construction. Topics include: OSHA standards for confined space entry, and the implementation in general industry 1910 and construction 1926 hazards associated with confined space entry, permits, procedures and written programs, roles and responsibilities of entrants, attendants and supervisors, personal protective equipment, ventilation and purging, calculations and techniques, appropriate atmospheric testing equipment and limitations, functional use, application of metering devices, and emergency procedures and confined space rescue requirements. Participants explore the use and limitations of explosion meters, oxygen meters and other test equipment, and learn the operation and calibration of gas monitoring equipment. This course includes confined space entry exercises and demonstrations. Expanded curriculum to include Subpart AA Confined Spaces in Construction.

June 3-6, 2019 | Monday - Thursday

#### **OSHA #3095: Electrical Standards**

Course Description: This course provides students with a survey of OSHA's electrical standards and hazards associated with electrical installations and equipment. Topics include: single-phase and three-phase systems; cord-connected, plug-connected, and fixed equipment; grounding; ground fault circuit interrupters; and safety-related work practices. Emphasis is placed on electrical hazard recognition and OSHA policies and procedures. Students receive instruction on safe and correct use of their electrical testing equipment. This course provides information from the OSHA regulations, NFPA 70E® changes and updates, practical discussion, and demonstrations included. NFPA 70E® is a registered trademark of the National Fire Protection Association, Quincy, MA.

(See reverse for Construction Boot Camp 2)

## SAFE-399-02C Construction Boot Camp 2 (4 credits)

Utilizing a combination of subject matter experts/OSHA instructors and SOHAS faculty, this course explores a series of subjects and most frequent causes of accidents and fatalities in the construction industry. Topics include: cranes in construction, fall protection and principles of scaffolding. This course is a blended on-campus and online course. **Classroom sessions will be held June 10-12, 17-20 and 24-26, with remainder of work online through summer.**

The online assignments will include research and writing on each of the topics of this course. Specifically, the students will be required to research and write a tool box talk, research and develop employee training materials and research and critique a NIOSH Fatality Assessment and Control Evaluation (FACE) report on each of the subjects included in this course

Prerequisites: SOHAS and CSS majors and minors only.

### Components:

June 10-12, 2019 | Monday - Wednesday

#### **OSHA #2055: Cranes in Construction**

Course Description: This course covers the best practices in crane and derrick operation using the OSHA Cranes and Derricks in Construction Rule as a guide. Course topics include hazards associated with crane assembly and disassembly, types of cranes, lifting concepts, rigging and wire rope, signaling, employee qualifications and training, and maintenance, repair, and inspection requirements. Students will participate in workshops to reinforce concepts of safe crane operation. Upon course completion students will have the ability to identify the types of cranes and their components and attachments, determine safe operating conditions, and recognize common violations of OSHA Standards.

June 17-19, 2019 | Monday - Wednesday

#### **OSHA #3115: Fall Protection**

Course Description: OSHA's course on fall protection/fall prevention covers OSHA's fall protection standards and policies in construction and non-construction, plus an overview of fall protection methods and best practices. Course topics include principles of fall protection, components and limitations of fall arrest systems, and OSHA standards and policies regarding fall protection. Students will participate in workshops demonstrating the inspection and usage of fall protection equipment, residential construction fall protection, training requirements, and developing a fall protection program. Upon successful completion of this course students will have the ability to assess compliance with the OSHA Fall Protection standard, evaluate installed passive systems and fall arrest systems and develop and implement fall protection plans. Additional Topics: 29 CFR 1926 Subpart M, Sample Fall Protection plans, Consensus standards and summaries, Fall hazard analysis, Fall accidents and fatalities, Litigation decisions, Pre and post-test.

June 20, 2019 | Thursday

#### **NCSH 424: Hands-On Fall Protection**

Course Description: This hands-on course provides in-depth practical training for fall protection on conventional and unconventional applications. When work is performed on elevated surfaces or during construction and service activities, protection against falls must be considered. Contractors are required to have and/or provide a training course for each employee who might be working with or on ladders and exposed to fall hazards. Training provides participants instruction on recognizing risks and hazards of using ladders in the work environment, and solutions to minimize risks and hazards. This course is a practical all hands-on course for the "Competent Person" who will be managing this problem area. This course is for individuals that are responsible for the supervision, implementation and monitoring of a managed fall protection program. This course incorporates extensive hands-on training and is based on the requirements of the US OSHA Regulations, and ANSI Z359.2 standard. Students will learn: Selection, application and use of fall protection systems; how to properly don fall protection equipment; how to properly fit fall protection equipment; formal inspection procedure and documentation process; equipment cleaning, storage and disposal, Identification of hazards impacting equipment integrity; OSHA and ANSI inspection requirements.

June 24-26, 2019 | Monday - Wednesday

#### **OSHA #3085: Principles of Scaffolding**

Course Description: This course covers the requirements for construction and the safe construction and use of scaffolding using the OSHA construction scaffold standard 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.