

ISC 115
CONSTRUCTION SAFETY

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces the basic concepts of construction site safety. Topics include ladders, lifting, lock-out/tag-out, personal protective devices, scaffolds and above/below ground work based on OSHA regulations. Upon completion, students should be able to demonstrate knowledge of applicable safety regulations and safely participate in construction projects.

Course Hours Per Week: Class, 2. Semester Hours Credit, 2.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Identify and interpret the major OSHA standards for the construction industry of 29 CFR part 1926.
- b. Interpret OSHA regulations for scaffolds at a basic level.
- c. Differentiate between fall protection and fall prevention devices.
- d. Describe ladder safety training requirements.
- e. Describe the elements of the OSHA excavations standard (29 CFR 1926 Subpart P).
- f. Interpret, at a basic level, OSHA standards for cranes, derricks, hoists, and conveyors.

OUTLINE OF INSTRUCTION:

- I. Legal Regulation of construction safety and health
 - a. Federal agencies: OSHA, NIOSH
 - b. Regulation at the state level: NC Dept. Labor
 - c. Inspections, citations, penalties
 - d. OSHA construction standards (29 CFR 1926)
 - e. Recordkeeping and reporting

- II. Fall prevention and protection
 - a. Hazard assessment
 - b. Fall protection program
 - c. Fall prevention
 - d. Fall protection
 - e. Scaffolds
 - f. Ladders

III. Cranes, hoists, elevators, and conveyors

- a. Cranes and derricks
- b. Material hoists, personnel hoists, elevators
- c. Conveyors

IV. Excavations

- a. OSHA excavations standard
- b. Hazardous atmospheres
- c. Competent person and selection of protective measures
- d. Ingress and egress

V. Concrete and steel construction

- a. Concrete and masonry construction
- b. Steel erection

REQUIRED TEXTBOOK AND MATERIALS:

OSHA Construction Industry Regulations (29 CFR 1926). United States Department of Labor (2007, or any recent edition). Washington D.C.: United States Government Printing Office. (Note: equivalent editions published by the North Carolina Department of Labor and private vendors are acceptable.)

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.