



**School of Applied Engineering and Technology  
Department of Engineering Technology  
Construction Engineering Technology Program  
Course Syllabi**

**Course Number and Name:** CET 323, Construction Safety

**Credits and Contact Hours:** Credits - 3; Contact Hours – 1.5 Hour Lectures, twice a week

**Course Coordinator's Name:** John A. Wiggins, P.E., Senior University Lecturer & Program Coordinator

**Text Book and Supplemental Materials:** CFR 1926OSAH Construction Industry Regulations and Standards, 2022 published by Mancomm Publications

**Specific Course Information**

**a. Brief Description of the content of the course:** This course will address the safety issues encountered in construction as mandated by the Occupational Safety and Health Act (OSHA) and other similar regulations.

**b. Prerequisites or Co-requisites:** CET 313, Construction Procedures I and CET 314, Construction Procedures II

**c. Course Status: Required:** Required

**Specific Goals for the Course**

**a. Specific Outcomes of Instruction**

By the end of the course students should be able to:

1. Understand the purpose and scope of the Occupational Safety Health Act (OSHA) and the accompanying regulations.
2. Understand and apply the OSHA regulations to construction situations.
3. Prepare a safety plan based on an understanding of the OSHA regulations.
4. Prepare the appropriate techniques of record keeping and reporting of occupational injuries
5. Prepare a response to an OSHA violation.
6. Prepare training materials for workers in compliance with OSHA regulations.

**b. Relation to Student Outcomes**

**Student Outcome 2** –an ability to design systems, components, or processes meeting specific needs for broadly-defined engineering problems appropriate to the discipline.

**Course Learning Outcome** – Apply OSHA rules and regulations and the Manual of Uniform Traffic Control Devices to the construction project and be able to design and prepare an OSHA-compliant safety plan and a work zone traffic safety plan.

**Student Outcome 3** – An ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature.

**Course Learning Outcome** – Apply OSHA rules and regulations and the Manual of Uniform Traffic Control Devices to the construction project and prepare a written plan-based OSHA rules and regulations and a work zone traffic safety plan.

**Student Outcome 4** – An ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes.

**Course Learning Outcome** – Be able to evaluate how the plans developed performed on the project and use the results to address any problems and how to address them in the future.

**Program Specific Outcomes c** – Utilization of measuring methods, hardware, and software that are appropriate for field, laboratory, office processes related to construction.

**Course Learning Outcome** - Students will be able to determine what various materials will be used and the necessary plans for an OSHA-compliant safety plan regulations and a work zone traffic safety plan.

**Program Specific Outcomes g** – Selection of appropriate construction materials and practices.

**Course Learning Outcome** -- Students will be able to determine various materials and practices necessary to implement an OSHA-compliant safety plan based upon OSHA rules and regulations and the Manual of Uniform Traffic Control Devices for a work zone traffic safety plan.

### **Brief list of topics covered**

An introduction of OSHA Regulations (Record keeping/reporting of occupational injuries, personal protective equipment, Hazardous Communication), a review of a horizontal construction project safety (including work zone safety, excavation safety, electrical safety, signs, signals and barricades, tool safety, crane operation) and vertical construction project safety handling (including electrical protection, fall protection, scaffolding, stairs, and ladders and rigging and steel erection).