

University of Toledo

Construction Engineering Technology

Master Syllabus

Course Title: Contracts & Specifications

Course Code & Number: CET-3160

Credit Hour Total: 3 **Weekly Contact Hours Lecture:** 3 **Lab Hours:** 0

Prerequisite(s): CET-1100, CET-1150, ENGL-1130 or ENGL 2950

Text: Construction Contracts, 3rd Edition
Hinze ISBN: 978-0073397856

Software: None

Course Coordinator: Mata

A. **Course Description** (Approved catalog description.)

This course includes the review and understanding of construction contract documents and relationship of drawings, specifications, scheduling, and contracts. This course also includes the review and dissemination of construction specifications for purposes of defining scopes of work.

B. **Related Program Outcomes:**

Upon successful completion of the Construction Engineering Technology program, graduates will have:

ABET/Student Outcomes

- g. an ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;
- i. an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity;
- j. a knowledge of the impact of engineering technology solutions in a societal and global context;

Program Criteria Outcomes

1. Effective communication skills related to the construction environment through the proper usage of oral, written and graphic techniques.
8. An understanding of codes and specifications in the implementation of building and highway projects.
11. A development and understanding of the proper management techniques of construction projects relative to budget, schedule, safety, organization and contractual obligations.

Evidence of the success of these outcomes is provided by the collection and analysis of:

- Construction Contract Cases
- Midterm or Final Test on General Conditions

C. Course Objectives:

Upon completion of this course the student will have:

1. An understanding of basic construction business and contractual relationships.
2. The ability to write basic, yet definitive, "scopes of work" for contracts utilizing the specifications
3. An understanding of the execution of the contract between contractor and owner, contractor and subcontractor, contractor and material supplier.

D. Course Outline – Major Component Areas

1. Construction Business and Contractual Relationships
 - a. Construction business terminology
 - b. Titles and substance of standard contracts
 - c. Familiarity with common construction contracts
 - d. Unit Price, Lump Sum and Negotiated contracts
 - e. Obligations
2. Reading specifications and translating its obligations into Subcontracts and Purchase Orders
 - a. Specifications as commonly outlined by the Construction Specifications Institute 16 divisions. Review each division
 - b. Writing "scopes of work" for purchase orders and subcontracts
3. Administering Contract Agreements
 - a. Invoicing and Payments
 - b. Insurances, safety programs, change orders
 - c. Debates based on actual industry experiences- demonstrate understanding of specifications (see paragraph B2 above) .
 - d. Ethics on accepting bids and awarding contracts(with guest speakers from Industry)
 - e. Shop drawing submittal process

E. Suggested Laboratory Tests

None