

CENTER FOR INNOVATIVE TECHNOLOGIES  
MASTER COURSE DOCUMENT

## CET 285 Civil Engineering Technology Construction Management Capstone

**Course Description:** Students respond to a request for construction management services and complete a project that demonstrates integrated competencies in estimating, scheduling, communicating, and teamwork.

**Prerequisites(s):** CET 230 and CET 235

**Corequisite(s):** None

|  |  |   |
|--|--|---|
| Lecture Hours: 2   | Lab Hours: 3   | Credit Hours: 3                               |
| Lab Fee: \$105   | Supplemental Fee: \$0                                | Purpose:                                      |
| <input type="checkbox"/> Transfer Assurance Guide Course (TAG) | <input type="checkbox"/> Transfer Module Course (TM) |   |
| Course Format: Lec/Lab   |  | Grading: A/B/C/F/I                            |
| Delivery Method: <input type="checkbox"/> Web                  | <input type="checkbox"/> Hybrid                      | <input checked="" type="checkbox"/> Classroom |
| Semesters Offered: <input checked="" type="checkbox"/> Fall    | <input type="checkbox"/> Spring                      | <input checked="" type="checkbox"/> Summer    |

### Course Primary Text:

|                             |          |
|-----------------------------|----------|
| Title: No Textbook Required | Edition: |
| Author(s):                  |          |
| Publisher:                  |          |

### Supplemental Materials:

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| Preliminary plans of project to be used as the project for the capstone. |
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### Course Outcomes:

|   |   |
|---|---|
| 1 | ABET (A), Assessed: - an ability to apply the knowledge, techniques, skills and modern tools of the discipline to narrowly defined engineering technology activities. |
| 2 | ABET (D), Assessed: - An ability to function effectively as a member of a technical team.   |
| 3 | ABET (E), Assessed: - An ability to identify, analyze, and solve narrowly defined engineering technology problems.  |
| 4 | ABET (F), Assessed: - An ability to apply written, oral, and graphical communication in both technical and non-technical environments.                                |
| 5 | ABET (G), Assessed: – an understanding of the need for and an ability to engage in self-directed continuing professional development.                                 |
| 6 | ABET (H), Assessed: – an understanding of an a commitment to address professional and ethical responsibilities, including a respect for diversity.                    |
| 7 | ABET (I), Assessed: – a commitment to quality, timeliness, and continuous improvement.  |
| 8 | ACCE 8, Assessed: - Discuss basic principles of ethics in the construction industry.  |

### Course Topics:

|        |   |
|--------|---|
| Week 1 | Introduction to the course and CM Project – pick teams                  |
| Week 2 | Intro to Law – US Law; Lab: meet at project site for “client interview” |

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|         |  |
|---------|--|
| Week 3  | US Labor Law, Davis-Bacon, Prevailing Wage; Lab: Discuss preconstruction activities associated with project, finding information on permitting, applications, etc. |
| Week 4  | Contracts and Elements in a Contract, AIA Documents; Lab: Discuss value engineering and utilization of life cycle costs  |
| Week 5  | Lab: Group work – “working drawings” must be submitted for external review   |
| Week 6  | Safety – Trench; Review assessment of working drawings and continue group work   |
| Week 7  | Safety – Steel/Fall Protection; Lab: Discuss value engineering and utilization of life cycle costs   |
| Week 8  | Managing Risk, Value Engineering; Lab: Workers Compensation Laws in Ohio   |
| Week 9  | Managing Risk Continued, Costs of Injuries (Direct vs. Indirect); Lab: Perform Mid-term assessment of group members (by group members)                             |
| Week 10 | Capstone project   |
| Week 11 | Capstone project   |
| Week 12 | Capstone project   |
| Week 13 | Capstone project   |
| Week 14 | Capstone Project Presentations   |
| Week 15 | Capstone Project Presentations, Course wrap-up   |

**Methods of Evaluation/Assessment**

|                                 |
|---------------------------------|
| Tests – 2 @ 16% = 32%           |
| Written Capstone Proposal – 30% |
| Capstone Presentation – 30%     |
| Team Member Evaluations – 8%    |

Course Keeper: ~~John Buttelworth~~  
Course Keeper: Carol Morman

Date Completed: 09/09/13  
Updated: September 16, 2016  
Updated: February 17, 2018  
Updated: March 15, 2019