**Course:**  *Civ-Env 330, Construction Management Fall 2016*

**Credits:**  1 Unit credit; contact hours: 3 hrs lecture, 1 hr lab per week

**Instructor:**  Richard Tilghman


**Description:**  Techniques for coordinating decisions and actions of various parties in the design and construction of civil and environmental engineering projects. Delivery systems; preconstruction services; project planning; cost control and value engineering; bidding.

**Prereq:**  Senior standing in engineering, or permission of instructor

**Required?:**  Required

**Specific Goals for the Course:**
By the end of the course, students should be able to

1) Recognize the variety of delivery systems for construction projects.
2) Differentiate the construction manager’s role during preconstruction and estimating process.
3) Examination of the bidding versus quality-based selection process for procurement of work by construction management firms.
4) Differentiation of the various types of schedules used in construction.
5) Contrast the roles and responsibilities and the interactions of design professionals and construction professionals to construct a project.

**Relation of “course specific goals” to programmatic student learning outcome through Course Assessment Table (CAT), which feeds into Program Assessment Table (PAT)**

<table>
<thead>
<tr>
<th>Course goals</th>
<th>Program</th>
<th>Criteria met via</th>
<th>Performance Indicator</th>
<th>Assessment</th>
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## Topics Covered:

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<tr>
<th>Date</th>
<th>Subject</th>
<th>Readings Before Lecture</th>
<th>Problems Assigned</th>
<th>Comments</th>
<th>Due</th>
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</table>
| September 21 | Introduction  
Course Goals  
Construction Terms  
Players & Their Roles |                         |                  |          |                      |
| 23       | Owner  
Design Professional  
Construction Professional | Chapters 1/3/7           |                  |          |                      |
| 26       | Project Delivery Systems  
Design-Bid-Build  
Negotiated  
Design-Build |                         |                  |          |                      |
| October 3 | Project Delivery Systems  
Design-Bid-Build  
Negotiated  
Design-Build | Chapters 2/9              |                  |          |                      |
| 5        | Construction Documents  
Plans  
Specifications | Chapter 4                  |                  |          |                      |
| 10       | Construction Documents  
Contracts | Chapters 18/20             |                  |          |                      |
| 17       | Wrigley Presentation | Chapter 7                  |                  |          |                      |
| 19       | Contracts (Continued) |                         |                  |          |                      |
| 26       | Preconstruction Activities | Chapters 10/11            | Mid-Term Due  
11-02-16 | Distribute Mid-Term  |                      |
| 28       | Value Engineering | Chapters 13/15             |                  |          |                      |
| 31       | Detailed Estimating and  
Procurement | Chapters 6/11/14          |                  |          |                      |
| November 3 | Scheduling  
Architect Perspective  
(Guest Speaker) | Chapters 5/12              |                  |          |                      |
| 9        | Lean Construction |                         |                  |          |                      |
| 11       | Labor Productivity  
Quality Assurance  
Safety | Chapters 16/17             |                  |          |                      |
| 14       | Project Closeout |                         |                  |          |                      |
| 16       | Marketing, Sales &  
Customer Relations |                         |                  |          |                      |
| 18       | Course Review |                         |                  |          |                      |
| December 1  | Final Exam Due  
11-30-16 |                         |                  |          |                      |

## Grade Distribution:
- Homework: 30%
- Mid-Term: 30%
- Final: 30%
- Class Participation: 10%

## Contact Information:
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