CE 460

Course Syllabus

Fall 2012
Part I Course Organization
SYLLABUS
CE 460
Fall 2012
GFS 116
Tuesdays 6:30-9:10

Text: Construction Contracting, 7th edition, by Clough/Sears

Professor Henry M. Koffman
KAP 222
Phone: 213-740-0556  Fax: 213-744-1426
Email: koffman@usc.edu

TA:  Iman Yadegaran
KAP 239
Email :iyadegar@usc.edu

Office Hours:
Tuesdays  12-2 PM
Wednesdays 12-2 PM

Blackboard:  http://blackboard.usc.edu

8/28  Introduction/Industry/Project/Overview

9/3  LABOR DAY – No Classes

9/4  Autobiographies [with recent color picture] Due
Guest Speaker: Jay Fischer – The Catalina Project
Chapter 1:  The Construction Industry
Chapter 2:  Business Ownership
Chapter 3:  Company Organization
9/11  Chapter 4:  Drawings & Specifications
Chapter 5:  Estimating & Bidding
Chapter 6:  Construction Contracts
Ethics Group #1 Presentation
Quiz #1:  Chapter 1-3
Homework #1 Due:
1.1-1.4, 1.6-1.8, 1.11-1.15, 1.18
2.1, 2.3, 2.6, 2.8-2.11

9/18  Chapter 7:  Construction Insurance
Chapter 8:  Contracts Surety Bonds
Ethics Group #2 Presentation
Homework #2 Due:
3.1 – 3.6
4.1 – 4.9

9/25  Guest Speaker:  Nate Arnold - LEED
Quiz #2  Chapters 4-8
Chapter 13:  Labor Law Management
Chapter 14:  Labor Relations
Ethics Group #3 Presentation
Homework #3 Due:
5.1, 5.4 – 5.7, 5.9, 5.10, 5.12, 5.14, 5.17, 5.19, 5.25, 5.27
6.2, 6.8, - 6.16

10/2  Chapter 9:  Business Methods
Ethics Group #4 Presentation
Homework #4 Due:
7.1 – 7.9
8.1 – 8.13

10/9  MIDTERM: Chapters 1-8

10/16  Chapter 10:  Project Management & Administration
Ethics Group #5 Presentation
Term Paper Topics Due
10/23  Guest Speaker: Shobhit Baaddkar - BIM
   Chapter 11:  Project Time Management
   Ethics Group #6 Presentation
   Homework #5 Due:
      9.1 – 9.6
      10.1, 10.2, 10.4 – 10.9, 10.12 – 10.14
   Quiz #3 Chapter 12 Take Home

10/30  Chapter 12:  Project Cost Management
   Ethics Group #7 Presentation
   Term Paper Due
   Homework #6 Due:
      11.1 – 11.4, 11.7 – 11.10
   Take Home Quiz #3 Due

11/6   Chapter 15:  Safety
   Ethics Group #8, #9 Presentation
   Quiz #4 Chapters 9, 10, 11, 13, 14
   Homework #7 Due:
      12.1 – 12.7
      13.1 – 13.11
      14.1 – 14.3, 14.6 – 14.9, 14.11

11/13  Field Trip
   Homework #8 Due:
      15.2 – 15.4, 15.6, 15.7, 15.12 – 15.14

11/20  Term Paper Due
   Paper/Oral Presentations

11/22  THANKSGIVING – No Classes

11/27  Paper/Oral Presentations

12/4   Class/Teacher/TA/ABET/Evaluations
   Paper/Oral Presentations

12/18  FINAL:  Chapter 9-15  7-9pm
POLICIES

Examinations:
All examinations will be closed book. Notes will not be allowed. Make-up examinations will be given under extraordinary circumstances only. Missed quizzes will count as zero if prior authorization is not granted. Honor system is observed.

Grading/Values:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Grade Range</th>
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</thead>
<tbody>
<tr>
<td>Classroom Participation</td>
<td>5%</td>
<td>A- to A+ = &gt; 90%</td>
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<tr>
<td>Homework</td>
<td>5%</td>
<td>B- to B+ = &gt; 80% or “Weighted Curve”</td>
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<tr>
<td>Midterm</td>
<td>30%</td>
<td>C- to C+ = &gt; 70%</td>
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<tr>
<td>Final</td>
<td>30%</td>
<td>D- to D+ = &gt; 60%</td>
</tr>
<tr>
<td>Paper and Oral Presentations</td>
<td>15%</td>
<td>F &lt; 59%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
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</tbody>
</table>

**Note: Quizzes cannot be made up without prior authorization from the Professor. Missed quizzes will count as zero.**

Course Content:

A. Objectives:

1. Fulfill degree requirement.
2. Become familiar with Construction Management/Methods.
3. Understand the principles of project management, cost/schedule/methods/terminology, contract administration.
4. Skill development for successful job performance, especially communications, both written and verbal.
5. Ethics comprehension.
6. Teamwork.

B. Instructions:

1. Includes reading assignments, lectures, example problems, homework, examinations, a term paper, an oral presentation and field trips.
2. Intention in lecture is to: focus on key ideas, work example problems, leave less important detail for reading and question asking.
3. Students will be expected to fully participate in classroom discussions and problem solving.
4. Industry speakers will present their views and opinions.
5. Tardiness will not be tolerated.
6. Absences are only excused with prior notification via e-mail and/or telephone. Three (3) unexcused absences will result in a failure grade.
7. Cell phones, pagers, etc. must be turned off.
C. **Reading Assignments**
   1. Reading Assignments are identified on the course agenda.
   2. It is important to keep up with the reading since it will form the basis for classroom discussions.

D. **Extra Credits:**
   1. Extra Papers
   2. Professional organizational activities and membership in ASCE, AGC, CMAA, etc.
   3. Field trips
   4. Seminars, Symposiums Conferences, etc. (AGC Symposium #19, ASCE PSWRC at USC, SPARKS Competition, ASCE National Convention, CMAA National Conference.)

E. **Student Conduct**
   1. Students are Responsible for adhering to “Academic Responsibility.”

F. **Students with Disabilities**
   Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. Your letter must be specific as to the nature of any accommodations granted. DSP is located in STU 301 and is open 8:30 am to 5:30 pm, Monday through Friday. The telephone number for DSP is (213) 740-0776.

G. **Academic Integrity**
   1. The University, as an instrument of learning, is predicated on the existence of an environment of integrity. As members of the academic community, faculty, students, and administrative officials share the responsibility for maintaining this environment. Faculties have the primary responsibility for establishing and maintaining an atmosphere and attitude of academic integrity such that the enterprise may flourish in an open and honest way. Students share this responsibility for maintaining standards of academic performance and classroom behavior conducive to the learning process. Administrative officials are responsible for the establishment and maintenance of procedures to support and enforce those academic standards. Thus, the entire University community bears the responsibility for maintaining an environment of integrity and for taking appropriate action to sanction individuals involved in any violation. When there is a clear indication that such individuals are unwilling or unable to support these standards, they should not be allowed to remain in the University.” (Faculty Handbook, 1994:20)

   2. Academic dishonesty includes: (Faculty Handbook, 1994: 21-22)
      - Examination behavior – any use of external assistance during an examination shall be considered academically dishonest unless expressly permitted by the teacher.
• Fabrication – any intentional falsification or invention of data or citation in an academic exercise will be considered a violation of academic integrity.
• Plagiarism – the appropriation and subsequent passing off of another’s ideas or words as one’s own. If the words or ideas of another are used, acknowledgment of the original source must be made through recognized referencing practices.
• Other Types of Academic Dishonesty – submitting a paper written by or obtained from another, using a paper or essay in more than one class without the teacher’s express permission, obtaining a copy of an examination in advance without the knowledge and consent of the teacher, changing academic records outside of normal procedures and/or petitions, using another person to complete homework assignments or take-home exams without the knowledge or consent of the teacher.

3. The use of unauthorized material, communication with fellow students for course assignments, or during a mid-term examination, attempting to benefit from work of another student, past or present and similar behavior that defeats the intent of an assignment or mid-term examination, is unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior resulting from the nervous tensions accompanying examinations. Where a clear violation has occurred, however, the instructor may disqualify the student’s work as unacceptable and assign a failing mark on the paper.

H. Return of Course Assignments

Returned paperwork, unclaimed by a student, will be discarded after 4 weeks and hence, will not be available should a grade appeal be pursued following receipt of his/her grade.
Part II  Detailed Course Objectives
**Course Information, Textbook, and Supplementary Materials**

**Course Description:** Introduction to the construction processes; estimating and bidding, construction administration, planning and scheduling, equipment and methods, labor relations, cost control systems, and safety.

**Required for:** BSCE Structural  
**Elective for:** BSCE and BSCE Building Science

**Prerequisite:** none

**Co-Requisite:** none

**Required Textbook:** Sears, S. Keoki, Glenn A. Sears, and Richard H. Clough.  

**Reference:** none

<table>
<thead>
<tr>
<th>Topics Covered</th>
<th>Learning Outcomes</th>
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| Development of professional skills  | Students will have learned:  
1. Site safety  
2. Labor law and labor relations  
3. Project cost management  
4. Project time management  
5. Business methods  
6. Bonds and insurance  
7. Cost estimating and bidding  
8. Drawings and specifications  
9. Company organization  
10. Business ownership  
11. The construction company  
12. Construction contracts and law  
13. Ethics  
14. To research, organize, and write a technical paper  
15. To prepare and orally present a technical paper |
| Ethics                              | 16. To differentiate various ethical behaviors  
17. To learn various codes of ethics |
| Networking                          | 18. How to join professional organizations (AGC, ASCE, etc.)  
19. About opportunities to attend professional conferences, meetings, symposia, etc.  
20. About professional registration |
22. Critical path method  
23. Unbalancing  
24. The construction process |
Lecture and Lab Schedule

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
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<tbody>
<tr>
<td>Sessions per Week</td>
<td>Sessions per Week</td>
</tr>
<tr>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>Duration per Session</td>
<td>Duration per Session</td>
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<tr>
<td>3</td>
<td>n/a</td>
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Contribution of Course to Meeting the Professional Component

**Engineering Topics**
In this course, students will further develop their professional skills and networking capabilities, understand the importance of ethics along with the principles of construction management and methods.

**Relation of Course Objectives to Program Outcomes**

| Course Contribution to Program Outcomes (a-k) | Key
<table>
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<tbody>
<tr>
<td>a. An ability to apply knowledge of mathematics, science, and engineering.</td>
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<tr>
<td>d. An ability to function on multi-disciplinary teams.</td>
<td>✓</td>
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<tr>
<td>e. An ability to identify, formulate and solve engineering problems.</td>
<td></td>
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<tr>
<td>f. An understanding of professional and ethical responsibility.</td>
<td>✓</td>
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<tr>
<td>g. An ability to communicate effectively.</td>
<td>✓</td>
</tr>
<tr>
<td>h. The broad education necessary to understand the impact of engineering solutions in a global economic and environmental and societal context.</td>
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<tr>
<td>i. Recognition of the need for, and an ability to engage in life-long learning.</td>
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<tr>
<td>j. Knowledge of contemporary issues.</td>
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<tr>
<td>k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.</td>
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Prepared by: Professor Henry M. Koffman, P.E.
Director, Construction Engineering and Management Program

Date: Fall 2012