# CE 462 Construction Methods and Equipment

## 2011 Spring Semester — Course Syllabus

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Tuesday</th>
<th>3:30 to 6:10 p.m.</th>
<th>RTH 109</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>Henry M. Koffman</td>
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<tr>
<td>Office</td>
<td>KAP 222</td>
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<tr>
<td>Phone</td>
<td>213-740-0556 Tel</td>
<td>213-744-1426 Fax</td>
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<tr>
<td>Email</td>
<td><a href="mailto:koffman@usc.edu">koffman@usc.edu</a></td>
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<tr>
<td>Office Hours</td>
<td>Monday – Friday, 10:00 a.m. to 6:00 p.m.</td>
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<tr>
<td>Teaching Assistant</td>
<td>Bothara Laukik</td>
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<tr>
<td>Office</td>
<td>KAP 239</td>
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<tr>
<td>Email</td>
<td><a href="mailto:bothara@usc.edu">bothara@usc.edu</a></td>
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<tr>
<td>Office Hours</td>
<td>Tuesday — 10:00 a.m. – 1:00 p.m.</td>
<td>Wednesday — 10:00 a.m. – 1:00 p.m.</td>
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<tr>
<td>Prerequisite</td>
<td>None</td>
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<tr>
<td>References</td>
<td>Listed at the end of this syllabus</td>
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<tr>
<td>Course Description</td>
<td>Current procedures in selected fields of construction; organization and planning; equipment economics; machinery.</td>
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</tbody>
</table>
| Course Objectives | • Fulfill degree requirements.  
• Become familiar with the types of construction equipment and their capabilities.  
• Understand the basic principles and terminology of project management and construction methods.  
• Skills development for successful job performance, especially communications, both written and verbal.  
• Ethics comprehension.  
• Teamwork |
| Class Project | As part of the requirements for the class, each student will be required to complete a complete term project. In keeping with the “team” concept of the course, you are encouraged to work your term project as a team. Individual submittals are also acceptable. |
| Extra credit | 1. Extra Paper(s)  
2. Professional organizational activities and membership in ASCE, AGC, CMAA, XE, etc.  
3. Field trips  
4. Seminars  
5. Symposium #16 (4/21/10)  
6. ASCE PSWRC @ UNLV (4/8/10-4/10/10)  
7. SPARKS Competition (2/10/10-2/13/10)  
8. ASCE Student Leadership Conference @ San Diego (2/26-2/27)  
## CE 462 Construction Methods and Equipment
### 2011 Spring Semester — Course Syllabus

### Instructions
- Includes reading assignments, lectures, example problems, homework, examinations, a term paper, an oral presentation and field trips.
- Intention in lecture is to focus on key ideas, work example problems, and leave less important detail for reading and questions.
- Students will be expected to fully participate in classroom discussions and problem solving.
- Industry speakers will present their views and opinions.
- Tardiness will not be tolerated.
- Absences are only excused with prior notification via e-mail and/or telephone. Three unexcused absences will result in a failure grade.
- Cell phones, pagers, etc. must be turned off.

### Homework Assignments
Please be punctual in submitting your homework works. Homework assignments must be submitted by the date specified on this syllabus before the class starts. I will be flexible as long as I feel the reasons are valid and are not excessive. Unexcused late homework will not be accepted. You should submit your homework 1) on paper or 2) through the online link on den blackboard under the assignments. These links will be set for each homework assignment separately. Please do not email your homework. The homework submitted online, will be graded online.

### Examinations
Examination dates are shown on the attached agenda. The final examination will be comprehensive. Make-up examinations will not be allowed unless under extraordinary circumstances. Honor system is observed.

### Make ups
Quizzes cannot be made up without prior authorization from the Professor. Missed quizzes will count as zero.

### 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.

### Reading Assignments
- Reading Assignments are identified on the course agenda.
- It is important to keep up with the reading since it will form the basis for classroom discussions.

### Extra credit
1. Extra Papers
2. Professional organizational activities and membership in ASCE, AGC, CMAA, etc.
3. Field trips
4. Seminars, Symposiums Conferences, etc. (AGC Symposium #15, ASCE PSWRC in Hawaii, SPARKS Competition, ASCE National Convention, CMAA National Conference.)

### 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.
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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.

### Student Conduct

Students are responsible for adhering to “Academic Responsibility.”

<table>
<thead>
<tr>
<th>Final grade schema is based on percentages of graded coursework</th>
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<th>Grading Scale</th>
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<tbody>
<tr>
<td>Homework</td>
<td>10 %</td>
<td>A- to A+ &gt; 90%</td>
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<td>Midterm</td>
<td>30 %</td>
<td>B- to B+ &gt; 80% or “Weighted Curve”</td>
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<td>Quizzes</td>
<td>10 %</td>
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<td>Final Project</td>
<td>30 %</td>
<td>C- to C+ &gt; 70%</td>
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<td>Final Exam</td>
<td>20 %</td>
<td>D- to D+ &gt; 60%</td>
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<tr>
<td>Total</td>
<td>100 %</td>
<td>F &lt; 59%</td>
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# Class Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
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<th>Fri</th>
<th>Class</th>
<th>Topic</th>
<th>Suggested Reading</th>
<th>Homework Assignments</th>
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</table>
STATEMENT ON ACADEMIC INTEGRITY

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own.

All students are expected to understand and abide by these principles. SCampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A:

http://www.usc.edu/dept/publications/SCAMPUS/gov/

Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at:

http://www.usc.edu/student-affairs/SJACS/

STATEMENT FOR 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 (or to TA) as early in the semester as possible.

DSP Contact Information

Location: STU 301
Hours open: 8:30 a.m. until 5:00 p.m., Monday — Friday
Phone number: (213) 740-0776
### Academic Dishonesty Sanction Guidelines

<table>
<thead>
<tr>
<th>Violation</th>
<th>Recommended Sanction¹</th>
</tr>
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<tbody>
<tr>
<td>Copying answers from other students on exam.</td>
<td>F for course.</td>
</tr>
<tr>
<td>One person allowing another to cheat from his/her exam or assignment.</td>
<td>F for course for both persons.</td>
</tr>
<tr>
<td>Possessing or using extra material during exam (crib sheets, notes, books, etc.)</td>
<td>F for course.</td>
</tr>
<tr>
<td>Continuing to write after exam has ended.</td>
<td>F or zero on exam.</td>
</tr>
<tr>
<td>Taking exam from room and later claiming that the instructor lost it.</td>
<td>F for course and recommendation for further disciplinary action (possible suspension).</td>
</tr>
<tr>
<td>Changing answers after exam has been returned.</td>
<td>F for course and recommendation for disciplinary action (possible suspension).</td>
</tr>
<tr>
<td>Fraudulent possession of exam prior to administration.</td>
<td>F for course and recommendation for suspension.</td>
</tr>
<tr>
<td>Obtaining a copy of an exam or answer key prior to administration.</td>
<td>Suspension or expulsion from the university; F for course.</td>
</tr>
<tr>
<td>Having someone else take an exam for oneself.</td>
<td>Suspension or expulsion from the University for both students; F for course.</td>
</tr>
<tr>
<td>Plagiarism.</td>
<td>F for course.</td>
</tr>
<tr>
<td>Submission of purchased term papers or papers done by others.</td>
<td>F for course and recommendation for further disciplinary action (possible suspension).</td>
</tr>
<tr>
<td>Submission of the same term papers co more than one instructor where no previous approval has been given.</td>
<td>F for both courses.</td>
</tr>
<tr>
<td>Unauthorized collaboration on an assignment.</td>
<td>F for the course for both students.</td>
</tr>
<tr>
<td>Falsification of information in admission application (including supporting documentation).</td>
<td>Revocation of university admission without opportunity to apply.</td>
</tr>
<tr>
<td>Documentary falsification (e.g., petitions and supporting medical documentation).</td>
<td>Suspension or expulsion from the university; F for course when related to a specific course.</td>
</tr>
<tr>
<td>Plagiarism in a graduate thesis or dissertation.</td>
<td>Expulsion from the university when discovered prior to graduation; revocation of degree when discovered subsequent to graduation.</td>
</tr>
</tbody>
</table>

Please refer to Trojan Integrity; A Faculty Desk Reference, for more information or assessing sanctions. You may also consult with members of the Office of Student Judicial Affairs and Community Standards at any point in the process. (213) 740-6666.

**Note:** The Student Conduct Code provides that graduate students who are found responsible for academic integrity violation may be sanctioned more severely than Appendix A suggests.

¹ Assuming first offense
Lower Academic Performance

The following health factors are associated with lower academic performance on at least one assignment, which is based on a recent health survey:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percent affecting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>37.1%</td>
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<tr>
<td>Sleep difficulty</td>
<td>27.1%</td>
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<tr>
<td>Relationship problems</td>
<td>21.2%</td>
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<tr>
<td>Depression</td>
<td>18.6%</td>
</tr>
<tr>
<td>Family concerns</td>
<td>18.4%</td>
</tr>
<tr>
<td>Internet and game-playing</td>
<td>16.0%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

Keys for Success

1. **FUN.** Be passionate. Enjoy what you are doing; Must love product and work; Everyone is able to tell if you are enjoying what you are doing. If you are not having FUN, then you are doing the wrong type of work.

2. **FOCUS.** Be committed to your work. Focus your energy on ideas and enjoyment of work.

3. **CREATIVE.** Not stopping at your assignment, but taking it one step beyond. Offering more than asked for, maybe that extra smile, or extra attention.

4. **PRIDE.** Self esteem.

5. **ENTHUSIASM.** Let everyone know how terrific things are going. Toot your own horn and let others toot theirs. Give individual thank yous, and give honest positives in a timely fashion.
Instructor’s Code of Ethics

- I will constantly be aware of all learning styles and adapt to the class to meet those leaning needs using a variety of teaching methods.

- I will create an environment in the class that will encourage the greatest opportunity for learning.

- I will strive to continuously improve my skills as an instructor, trainer and teacher.

Students’ Code of Ethics

- I will take responsibility for my own learning.

- I agree to be an active participant in my quest for new knowledge and skills.

- I will participate in the evaluation process in an honest manner.

- I will not interfere with the learning of others.
Engineering-in-training (EIT/FE) Exam

DEADLINE FOR FILING AND EXAM DATES:

Final Post Mark date:
Exam:

Final Post Mark Date:
Exam:

FOR MORE INFORMATION:

California State Board Registration for Professional Engineers and Land Surveyors

PO Box 349002
2535 Capitol Oaks Drive, Suite 300
Sacramento, CA  95833-2944

Phone: 916-263-2222    Fax: 916-263-2246
BPEL_Office@dca.ca.gov
Website: www.dca.ca.gov/pels

NOTE: STUDY BOOKS ARE AVAILABLE AT THE XE + AGC + ASCE OFFICE – KAP 241

ALL CIVIL ENGINEERING STUDENTS ARE URGED TO TAKE THIS EXAM NOW!!
Professor Koffman’s Student Stress Calendar

This calendar is meant to give you an idea of the stresses that many college students will be dealing with throughout the school year.

**September**
- Homesickness: Especially freshmen
- Values crisis: Students are confronted with questions of conscience in areas of drugs, alcohol, experimentation, morality, religion, and social expectations.
- Feelings of inadequacy and inferiority develop due to the discrepancy between high school status, grades, and initial college performance.
- "In Loco Parentis Blues": Students feel depressed because of real or perceived restrictive policies and regulations of college.
- International students sense confusion, vulnerability, and lack of any advocate in power position.
- Students’ excitement and willingness to try new things is at a peak.

**October**
- Freshmen realize that college life is not as perfect as expectations led them to believe. Old problems seem to continue and new ones are added.
- Grief develops because of inadequate social skills for finding a group or not being selected by one.
- Mid-term work pressures accumulate, followed by feelings of failure and loss of self-esteem.
- Sexual conflicts and confusion begin to show a result of first time confrontation with different heterosexual and homosexual standards.
- Non-dating students feel a loss of esteem because of societal pressures.
- Dating students may feel pressure to perform.
- Panic about finding a job strikes mid-year graduates.

**November**
- Academic pressure mounts due to procrastination, difficulty of work, and lack of ability.
- Depression and anxiety increase since students feel they should have adjusted to college by now.
- Party blues for students who have not found a social group.
- Economic anxiety: Loans are due and summer finances have dwindled.
- Some students cease to make attempts at new friendships beyond an existing two or three superficial relationships.
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December
- Extracurricular time strain: Seasonal parties, concerts, dances, projects, etc. - Anxiety, fear, and guilt increase as final examinations approach and papers are due.
- Pre-holiday depression: Those who have no home to visit; those who prefer not to go home.
- Financial strain because of holiday gifts and travel expenses.
- Vacation strains dating relationships.
- Excitement is up because of season and vacation.

January
- Post-holiday blues.
- Classes begin again.
- Less daylight hours.
- Academic pressures are less.

February
- Vocational choice causes anxiety and depression.
- Depression increases for those who have failed to establish social groups.
- Social calendar is not active and weather is blah.
- Transfer students and freshmen have survived the semester.
- Energy is high because students see the end of the year in sight.

March
- Drug and alcohol use increase.
- Depression increases due to anticipated separation from friends and loved ones at college.
- Academic pressures increase — Midterm panic. Spring is coming; weather improves.

April
- Frustrations and confusions develop during registration for the next semester.
- Papers and exams mount up.
- Time is extremely full with end of the year banquets, job interviews, award ceremonies, etc.
- The end is in sight and motivation arises to finish out the school year.

May
- End of the year anxiety over leaving friends and facing conflicts at home.
- Senior year panic about jobs and ability to finance oneself.
- Euphoria over completing one year of college/graduating.
- Friendships solidify as people face having to be separated over the summer.
References

American Society of Civil Engineers (ASCE), *Journal of Construction Engineering and Management* (on the shelves at the Seaver Science Library).


Harris, F.C., Construction Plant Excavating and Material Handling, Equipment and Methods, Garland, 1981.


Caterpillar Performance Handbook