

*ABET Course Syllabus***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.
Construction Contracting: A Practical Guide to Company Management, 7th ed.
Hoboken: Wiley & Sons, Inc., 2005.

Reference: none

Topics Covered	Learning Outcomes
Development of professional skills	Students will have learned: <ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 16. To differentiate various ethical behaviors 17. To learn various codes of ethics
Networking	<ol style="list-style-type: none"> 18. How to join professional organizations (AGC, ASCE, etc.) 19. About opportunities to attend professional conferences, meetings, symposia, etc. 20. About professional registration

Principles of Construction Management and Methods	21. Construction vocabulary 22. Critical path method 23. Unbalancing 24. The construction process
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CE 460	Construction Engineering	3 Units
USC SONNY ASTANI DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING		

Lecture and Lab Schedule			
Lecture		Lab	
Sessions per Week	Duration per Session	Sessions per Week	Duration per Session
1	3	n/a	

<p style="text-align: center;">Relation of Course Objectives to Program Outcomes</p> <p>The Civil Engineering program is designed to teach beyond the technical content of the curriculum and prepare the students to utilize what they learn in a professional setting.</p> <p>This course contributes to the program outcomes as outlined in the adjacent table.</p>	Course Contribution to Program Outcomes (a-k)	✓ Key
	d. The broad education necessary to understand the impact of engineering solutions in a global economic and environmental and societal context.	
	f. Recognition of the need for, and an ability to engage in life-long learning.	

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