

CE 501 - SYLLABUS

FUNCTIONS OF THE CONSTRUCTOR

FALL - 2015

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<https://blackboard.usc.edu/>

Wednesdays: 3:30-6:10
Room #: KAP 156

Text: PROFESSIONAL CONSTRUCTION MANAGEMENT (Optional)
Third Edition. Barrie & Paulson, Jr.

COURSE OUTLINE

The emphasis of the course focuses on construction management and the range of professional services available including program management, construction management, and general contracting. The course provides an overview of all phases of project development from concept through transfer of completed projects/services. Students will develop a comprehensive understanding of the varying approaches to construction projects, alternate project delivery methods and various organizational approaches between owner, architect / engineer, and constructor. Students will also develop a thorough understanding of construction terminology, contractual methodology/types, risk mitigation/management, labor/industrial relations, safety management, and project control systems to monitor/manage the cost, schedule, and quality of projects.

Topics Include:

- Marketing & Proposal Preparation
- Project Development
- Contractual Relationships
- Contract Terms & Administration
- Project Delivery Methods
- Program Management, Construction Management & General Contracting
- CM/GC Selection Process
- Subcontractor Selection Process
- Bid Packages & Subcontractor Coordination
- Estimating
- Scheduling
- Document Control
- Cost Control
- Quality Assurance & Quality Control
- Configuration Management & Change Control
- Project Administration
- Project Controls
- Risk Management, Categories of Risk, Types of Risk, & Risk Mitigation
- Risk Avoidance, Containment, Allowance
- Claims Prevention, Defense, & Dispute Resolution
- Insurance, Bonding, & Licensing
- Industrial Relations, & Construction Safety
- Union Construction, benefits & disadvantages
- Open Shop Construction, benefits & disadvantages
- Business Development
- Construction Specification Index MasterFormat
- Building Information Modeling
- Sustainability

COURSE SCHEDULE:

<u>Session:</u>	<u>Evening of:</u>	<u>Required Reading:</u>	<u>Topic of Discussion:</u>
1	Aug. 26	Chpt. 1,2	Class Introduction, Review of Course Syllabus Introduction to Industry & Project Life Cycle
2	Sept. 2	Chpt. 2,3	Project Development, Organization & Delivery Methods Contract Methods and Types
3	Sept. 9	Chpt. 7 Chpt. 9,14	CM/GC Functions & Responsibilities to Parties CM/GC Selection Process
4	Sept. 16	Chpt. 4,5,6	Sample Construction Project Subcontractor Selection Process Development of Bid Packages Building Information Modeling
5	Sept. 23	Chpt. 18 Chpt. 20	Risk Management, Insurance, & Bonding Claims & Dispute Resolution
6	Sept. 30	N/A	Exam No. 1
7	Oct. 7	Handout	Return/Review Exam No. 1 Term Project Handout & Presentation
8	Oct. 14	Chpt. 8, 11 & 13 Chpt. 12	Estimating, Cost Control and Change Management Project Scheduling & Work Breakdown Structure
9	Oct. 21	Chpt. 10, 15 Chpt. 16, 17 & 19	Business Development & Marketing, Value Engineering, Quality Assurance/Control, Building Commissioning, Project Safety & Labor Relations
10	Oct. 28	N/A	Program Management Overview & Applications Sustainability: USGBC & LEED
11	Nov. 4	N/A	Advanced Topic: <i>Guest Lecturer: TBD</i>
12	Nov. 11	N/A	Advanced Topic: <i>Guest Lecturer: TBD</i>
13	Nov. 18		Presentation of Term Projects
14	Nov. 25	NO CLASS	HOLIDAY
15	Dec. 2		Exam No. 2

TERM PROJECTS

The term project will be a group project, including an oral and written presentation, in which student teams will be competing amongst each other to be the successful bidder for a multi-million dollar construction project.

- Team Names and Team Members must be submitted by **October 14, 2015**.
- Term Projects are Due **November 18, 2015 at 3:30PM**.

OFFICE HOURS

- Hours to TBD. Please contact me to schedule appointments.
- Email: giorgio@usc.edu with questions.

MAKE-UP LECTURES AND EXAMS

- Make-up lectures will not be given. Students will be responsible for obtaining lecture information from fellow students.
- Make-up exams will be given with special consideration only.

GRADING EXAMS, PROJECT/PAPER

- Grading Weights
 - 30% Exam No. 1
 - 30% Term Project
 - 40% Exam No. 2
- Exams will consist of problems and written response from lecture materials, textbook and homework assignments.
- Extra Credit work will not be allowed.
- All USC policies are adhered to including those on cheating.

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 is located in STU 301 and is open 8:30 a.m.-5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

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 on Academic Conduct and Support Systems

Academic Conduct

Plagiarism - presenting someone else's ideas as your own, either verbatim or recast in your own words - is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community - such as a friend, classmate, advisor, or faculty member - can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.