

# **CE 501 - SYLLABUS**

## **FUNCTIONS OF THE CONSTRUCTOR**

### **SPRING - 2013**

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Instructor: Paul Giorgio  
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<https://blackboard.usc.edu/>

Wednesdays: 3:30-6:10  
Room #: TBD

**Text:** PROFESSIONAL CONSTRUCTION MANAGEMENT  
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:**

<b><u>Session:</u></b>	<b><u>Evening of:</u></b>	<b><u>Required Reading:</u></b>	<b><u>Topic of Discussion:</u></b>
1	Jan. 16	Chpt. 1,2	Class Introduction, Review of Course Syllabus Introduction to Industry & Project Life Cycle
2	Jan. 23	Chpt. 2,3	Project Development, Organization & Delivery Methods Contract Methods and Types
3	Jan. 30	Chpt. 7 Chpt. 9,14	PM/CM/GC Functions & Responsibilities to Parties CM/GC Selection Process
4	Feb. 6	Chpt. 4,5,6	Sample Construction Project Subcontractor Selection Process Development of Bid Packages Building Information Modeling
5	Feb. 13	N/A	Program Management & Public Contracting <i>Guest Lecturer</i>
6	Feb. 20	Chpt. 18	Risk Management, Insurance, & Bonding Sustainability: USGBC & LEED
7	Feb. 27	Chpt. 20	Claims, Liabilities, Dispute Process & Dispute Mitigation/Resolution <i>Guest Lecturer</i>
8	March 6		MID-TERM EXAM
9	March 13	Handout	Return/Review Midterm Term Project Handout & Presentation
10	March 20	No Class	Spring Break
11	March 27	Chpt. 8, 11 & 13 Chpt. 12	Estimating, Cost Control and Change Management Project Scheduling & Work Breakdown Structure
12	April 3	N/A	Contract Structure, Terms & General Conditions Contract Administration & Execution Contracting Concepts & Applications <i>Guest Lecturer</i>
13	April 10	N/A	Advanced Topic Project Delivery <i>Guest Lecturer</i>
14	April 17	Chpt. 10, 15 Chpt. 16, 17 & 19	Business Development, Marketing & Preconstruction Services , Value Engineering, Quality Assurance/Control, Building Commissioning, Project Safety & Labor Relations
15	April 24	N/A	Advanced Topic: TBD <i>Guest Lecturer   Course Evaluations</i>
16	May 1		Presentation of Term Projects
17	May 8		FINAL EXAM

### 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 March 27, 2013.
- Term Projects are Due May 1, 2013 at 3:30PM.

### OFFICE HOURS

- Hours to TBD. Please contact me to schedule appointments.
- Email: [giorgio@usc.edu](mailto: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% Mid-Term Exam
  - 30% Term Project
  - 40% Comprehensive Final Exam
- Exams will consist of problems and written response from the Textbooks, as well as lecture materials 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/>.