Semester Year: Summer 2018

Course Number: PLAN6357

Number Credits: 3

Thursday: 9:00 – 11:00am
Rm: 113 Avery
May 31st – August 9th, 2018

Instructor: Bob Sanna
Mobile: (646) 265.8826
Email: rs3620@columbia.edu

Class Assistant: Laya A. Pattana
Email: lap2207@columbia.edu

I. COURSE DESCRIPTION

This course is an introduction to construction solutions and process, focusing on appropriate applications for diverse project requirements. We will explore construction documentation, project delivery mechanisms, basic building systems as well as key project management process. The course goal is to provide technical, legal and administrative concepts that enable the developer to navigate the numerous value-related decisions in the development process.

II. COURSE REQUIREMENTS AND ASSIGNMENTS

Note, due to the large volume of content to be covered in this course, students are expected to arrive to class on time and having completed the assigned readings listed below. Each week students will be called on to discuss key points covered in the readings. Class discussion will focus on practical understanding of the concepts and avoid redundant review of fundamentals already covered in the readings.

III. COURSE GRADING CRITERIA

20% - Attendance & Participation
20% - Assignments (2) 10% each
30% - Midterm
30% - Final

COURSE GRADE:

HP, High Pass (95 - 100)
P, Pass (80 - 94)
LP, Low Pass (60 - 79)
F, Fail (59)

Only exceptional performers will receive a High Pass. Those who fall short on more than one major assignment will receive a Low Pass.

IV. READINGS

I strongly encourage you to complete readings ahead of the class. This will familiarize you with what we discuss in the class and put you in a better position to participate in class discussions. For each session, I have indicated the chapter from the textbook that will be covered in the class. In addition, supplemental lecture notes will be posted to Canvas one week before each class on Canvas. Link is courseworks2.columbia.edu. It is critical to review these notes before class.

REQUIRED READING/REFERENCE LIST:
- Construction Management Fundamentals by: Kraig Knutson, Clifford J. Schexnayder, Christine Fiori, Richard Mayo
- Building Construction Illustrated 5th Edition by: Francis D.K. Ching (Available at Amazon: Kindle Version, New, Used or Rental).

V. COURSE OUTLINE

1. **May 31st - Introduction to Construction Management/ Construction Admin I**
   - Design Process Review. Project Team & Project Delivery Mechanisms
     – Reading: Construction Management Fundamentals - Chapters 2, pgs. 39 – 55 & Chapter 3, pgs. 58 -75
   - Contract Docs, Contract Relationships, Bid/Award Type Of Contracts
     – Reading: Construction Management Fundamentals - Chapter 8, pgs. 272 – 292
     – Reading: Additional reading material posted to Canvas

2. **June 7th - Construction Admin II**
   - Administration of Construction Contract, Preconstruction thru Requisition, Finance, Draw Process, Change Orders and Claims
     – Reading: Construction Management Fundamentals - Chapter 3, pgs. 75 -91 & Chapter 8, pgs. 301- 312
     – **1st Assignment** - prepare a request for proposal (RFP) for the selection of an architect and construction manager utilizing concepts from construction admin I & II. Assignment due on June 14th at 5pm.

3. **June 14th - Building Systems I**
   - Foundations and Superstructure
     - Reading: Building Construction Illustrated - Chapters 3 & 4
     - Construction Management Fundamentals - Chapter 13

4. **June 21th - Building Systems II**
   - Exterior Wall, Fireproofing and Elevators
     - Reading: Building Construction Illustrated – Chapter 8 & Chapter 9, pgs. 9.14 -9.17
     - Construction Management Fundamentals - Chapter 14

5. **June 28th - Mid Term – Closed Book**

6. **June 29th – (Friday)**
   - Modular Systems, Pre-fab and Technology

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7. July 12th - Building Systems III
    - Mechanical, Plumbing, Fire Protection Systems and Commissioning
      - Reading: Building Construction Illustrated Chapter 11 pgs. 11.02 – 11.29
      - 2nd Assignment: Details to be given in class. Assignment due July 26th , at 5:00pm

8. July 19th - Construction Admin III (guest speaker: John L. Hunt - Sr. VP, Director of Construction Legal Services and Risk Management, FCRC)
    - Bonds, Insurance & Liens
      – Reading: Construction Management Fundamentals - Chapters 8, pgs. 293 – 301

9. July 26th - Building Systems III Continued (guest speaker: Tom Bonacuso - Sr. VP, Construction, FCRC)
    - Electrical, Infrastructure and Public Utilities
      - Reading: Building Construction Illustrated Chapter 11 pgs. 11.30 -11.44

10. August 2nd – Scheduling, Permit Process & Labor Unions
    - Concepts of Project Schedule
      o Critical Path method
    - Discussion of Regulatory Approvals
      – Reading: Construction Management Fundamentals - Chapter 4 pgs. 94 -122

11. August 9th – Final Exam: Closed Book on Entire Semester

VI. FINAL EXAMS AND PROJECTS

- Assignment: There will be two (2) assignments.

- Exams: There are two exams – Midterm and Final in this course. All exams are closed-notes and closed-book. Please mark your calendars for the dates of the exams.

- Lecture Material: Lecture notes and all other course related materials will be posted on Canvas. You should download them and bring a print to the class.

- The use of personal laptops, tablets, smart phones, etc. are **not** allowed in class. Students violating the policy will be asked to leave the classroom and will be marked absent for the day.

Students are expected to attend every class for the entire length of the term and complete all assignments on time.   If you have a prior commitment on a scheduled midterm and/or final date, you must notify me the first day of class to be considered for a makeup exam.   You are also expected to notify the TA Laya A. Pattana and I at least 48 hours in advance of all absences from class to be considered for an "excused absence". Credit toward Pass/Fail will be deducted for each unexcused absence.