CE 501: CONSTRUCTION PRACTICES

| Lecture Meeting Day: | Tuesdays |
|------------------------|------------------|
| Lecture Meeting Time: | 6:00PM – 9:20 PM |
| Location: | KAP 144 |
| Online Lecture Option: | N/A |
| Office Hours: | By appointment |

Professor Contact Information:

- Professor Sandra Ichiho
 email: <u>Ichiho@usc.edu</u>
- Professor Kyle Hoffman
 email: <u>khoffman@henselphelps.com</u>
- Teaching Assistant **TBD** email:

Course Description:

- 1. <u>Course Catalogue</u>: Systems, processes, and constraints governing the initiation, direction, engineering, and delivery of major construction projects. Professional construction management, responsibilities, and practice.
- <u>Expanded Description</u>: Fundamentals of Construction Management is a 4.0 unit introductory-level, graduate course designed for students with engineering backgrounds pursuing a graduate degree in the construction field. The course will provide basic understanding of the concepts and tools of construction project management.

Course Learning Objectives:

Upon successful completion of this course, students will (at a minimum) be able to:

- Discuss the history, evolution, and current structure of the Architecture-Engineering-Construction (AEC) Industry
- Identify basic construction equipment and materials
- Understand the role and functions of the Construction Manager, General Contractor, Architect, Engineers and other Design Professionals
- Understand the impact of productivity and safety in construction
- Understand concepts of Risk and Reward as applies to the Construction Industry
- Understand fundamental concepts of estimating and scheduling on projects
- Understand fundamental processes for construction contract administration
- Meet, interact with, and learn from Industry Professionals

Textbook and Software

- Bluebeam (or alternate .pdf viewing software)
- Microsoft Word (or alternate word processing software)

Assignments, Assessments and Learning Objectives

Discussion: Students are expected to participate via in-person discussions. Meaningful and relevant questions, debate, opinions, and thoughts are encouraged.

Guest Speakers: Students are expected to provide ONE original, thoughtful, question or discussion topic for each guest speaker. Guest Speaker questions / discussion topics must be submitted via Blackboard and are due no later than Sunday evening (midnight) prior to the Tuesday lecture.

Homework: NO late assignment will be accepted unless approved ahead of time by the instructor. Assignments are due prior to the start of the following class unless otherwise noted.

- All assignments should be submitted using Blackboard. Your name and the assignment title/number must be included in the text of the documents. The filename of your submissions should include your last name and assignment description. e.g. Ichiho HW3
- Assignments should be submitted in .pdf format unless otherwise requested. Note: Mark-ups must be "flattened" prior to uploading or they will not be visible during evaluation.

Quizzes: The course will have an undetermined number of quizzes and may or may not be announced in advance.

Mid-term: The mid-term will be based off of the course readings and lectures.

Final Exam: Paper assignment to be determined. Submissions must be submitted in .pdf format and represent a professional product.

Performance Requirements

All written deliverables are expected to be well-written, professional work products. All written material shall be carefully crafted and checked prior to submission. While quality of content is critical, it is essential that your writing be correct in terms of grammar, usage, and style. The content for the various written deliverables shall be synthesized from the required reading and independent research. Graphics should be clear, attractive, and must add value to the work, not merely serve as filler. Be sure to cite the source of any graphics or photos which are not original work, i.e. that which you did not create. All work must be clearly and uniquely identified with an appropriate cover.

Learning Assessment/Grading Structure

The final grade of the course will be determined in consonance with the following schedule:

| | Percent |
|---------------------------|-------------|
| In-Class Discussions | 25 % |
| Homework | 25 % |
| Quizzes / Midterm / Paper | 25 % |
| Final Exam | <u>25 %</u> |
| | 100 % |

Grading Scale:

| Grade | % | |
|-------|-------|------|
| | High | Low |
| A | 100.0 | 94.0 |
| A- | 93.9 | 90.0 |
| B+ | 89.9 | 87.0 |
| В | 86.9 | 83.0 |
| B- | 82.9 | 80.0 |
| C+ | 79.9 | 78.0 |
| С | 77.9 | 75.0 |
| D | 74.9 | 70.0 |
| F | 69.9 | |

| OUTLINE OF LECTURE TOPICS: | | | |
|----------------------------|----------|--|--|
| WEEK | DATE | TOPIC | |
| 1 | 08/22/23 | Introductions and Overview | |
| 2 | 08/29/23 | History, Roles and Process | |
| 3 | 09/05/23 | Delivery Methods & Project Teams | |
| 4 | 09/12/23 | Plan & Specs | |
| 5 | 09/19/23 | Contract Language, Equipment & Materials | |
| 6 | 09/26/23 | RFIs & Submittals | |
| 7 | 10/03/23 | Technology / Virtual Construction | |
| 8 | 10/10/23 | Mid-term | |
| 9 | 10/17/23 | Scheduling | |
| 10 | 10/24/23 | Contract Administration | |
| 11 | 10/31/23 | MEP Systems - Guest Lecture | |
| 12 | 11/07/23 | Quality & Productivity & Industry Panel | |
| 13 | 11/14/23 | Estimating | |
| 14 | 11/21/23 | Wellness Day (No Class) | |
| 15 | 11/28/23 | Life of a Project Engineer | |
| 16 | 12/12/23 | Final Exam | |

OUTLINE OF LECTURE TOPICS:

'* Order / Sequence / Date of Topics may change

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 Part B, Section 11, "Behavior Violating University Standards" <u>https://policy.usc.edu/scampus-part-b/</u>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <u>http://policy.usc.edu/scientific-misconduct</u>.

Support Systems:

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. https://engemannshc.usc.edu/counseling/

National Suicide Prevention Lifeline - 1-800-273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. <u>http://www.suicidepreventionlifeline.org</u>

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call Free and confidential therapy services, workshops, and training for situations related to genderbased harm. <u>https://engemannshc.usc.edu/rsvp/</u>

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: <u>http://sarc.usc.edu/</u>

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086 Works with faculty, staff, visitors, applicants, and students around issues of protected class. https://equity.usc.edu/

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <u>https://studentaffairs.usc.edu/bias-assessment-response-support/</u>

The Office of Disability Services and Programs

Provides certification for students with disabilities and helps arrange relevant accommodations. http://dsp.usc.edu

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. <u>https://studentaffairs.usc.edu/ssa/</u>

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. <u>https://diversity.usc.edu/</u>

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, <u>http://emergency.usc.edu</u>

USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime. Provides overall safety to USC community. <u>http://dps.usc.edu</u>