# California Polytechnic State University, San Luis Obispo

## **Construction Management Department**

## CM413-01/02, Construction Jobsite Management, Winter 2020

Instructor:	Thomas Kommer, J.D.
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Office Hours:	M 4:00 - 5:00pm
	TWR 3:00 – 4:00pm or by appointment
Class Days/Times:	M 12:10 – 4:00 and TWR 12:10 – 3:00
Classroom:	186-B203
Prerequisite(s):	CM313, Consent of Instructor

## **Course Description**

Insert catalog description here, along with number of units and their designation (activity, lab, lecture). Management activities applicable to the construction process involving techniques, applications, and theory needed in a jobsite environment. Addresses the relationships, roles, and perspectives of all stakeholders. Integrated utilization of temporary structures associated with field construction. 3 laboratories, 2 activities.

# **Course Goals and Learning Outcomes**

#### **Course Goals:**

As a result of this course, you should be able to:

- To demonstrate an ability to recall and comprehend the basic functions, rolls, and responsibilities of
  a typical commercial jobsite superintendent and the basic processes and procedures involved in the
  jobsite management of a typical commercial construction project.
- To demonstrate an understanding of the roles and responsibilities of the various players involved in the construction process.
- To research, analyze, report, and present on a construction jobsite and jobsite superintendent for the purpose of applying the theories developed and discussed in class to an actual construction project.
- To demonstrate an ability to recall and comprehend the basic temporary structures used in construction which assist with the building of projects and various field operations in both a presentation situation and comprehensive report.

### **Course Learning Outcomes (CLOs):**

- 1. Describe and recall common nomenclature associated with jobsite construction management.
- 2. Comprehend and relate to the roles and responsibilities of each construction team member associated with the construction of a commercial project.
- 3. Demonstrate the ability recall and explain the basic aspects of contract administration as it relates to the construction of a commercial project.
- 4. Comprehend and put to practice document control, using standard logs and tracking systems needed for jobsite construction management.
- 5. Demonstrate the ability to run a construction jobsite management meeting, recognizing all the rolls and responsibilities each player.
- 6. Complete and receive a certificate for the on-line 10-hour OSHA Safety training course.
- 7. Recognize and comprehend the subcontractor's roll and contractual relationship with the general contractor and subcontractor administration.
- 8. Comprehend and practice the submittal, substitution, and shop drawing process including the responsibilities of all parties involved.
- 9. Demonstrate the ability to recall and explain what is involved with jobsite scheduling and generate a two-week look-ahead schedule.
- 10. Demonstrate the ability to recall and explain the processes involved in generating a change order and making a claim on a commercial project.
- 11. Demonstrate the ability to prepare for and perform a simulated weekly jobsite "toolbox" safety meeting.
- 12. Demonstrate the ability to write a simple subcontract with a properly written scope of work.
- 13. Demonstrate the ability to read and comprehend the basics of a complete set of contract documents and relate them to the management of a construction jobsite.
- 14. Comprehend the issues and considerations taken into account when developing the site layout for a construction jobsite.
- 15. Comprehend the issues and considerations taken into account when working with and managing jobsite personnel, productivity, and labor relations.
- 16. Recognize what quality is and the tools used by jobsite management to control quality on a typical commercial construction project.
- 17. Demonstrate that ability to measure and generate a standard progress payment in a completed form for subsequent submission.
- 18. Comprehend and demonstrate the ability to recall the numerous procedures involved in the close-out of a commercial construction project.

- 19. Describe and recall common nomenclature associated with the design and construction of temporary structures.
- 20. Identify and recall the common and various materials used for construction of temporary structures and more specifically concrete formwork.
- 21. Summarize the relationships between and the responsibilities of the typical design team, owner, engineer and subcontractors.
- 22. Apply computer applications to the construction jobsite management process.
- 23. Analyze the material procurement and submittal processes.
- 24. Analyze the risk associated with the design and construction.
- 25. Create a construction site safety plan.

## **Student and Program Learning Outcomes**

The American Council for Construction Education (ACCE) is the accrediting body for Cal Poly's construction management program. The ACCE requires achievement of 20 student learning outcomes (SLOs). The construction management program has identified 20 program learning outcomes (PLOs) that equal or exceed the ACCE SLOs and 5 additional idiosyncratic PLOs.

This course supports the following PLOs:

- PLO 2: Create oral presentations appropriate to the construction discipline.
- PLO 3: Create a construction project safety plan.
- PLO 13: Understand construction risk management.
- PLO 15: Understand construction quality assurance and control.
- PLO 4: Create construction project cost estimates.
- PLO 5: Create construction project schedules.
- PLO 6: Analyze professional decisions based on ethical principles.
- PLO 7: Analyze construction documents for planning and management of construction processes.
- PLO 10: Apply electronic-based technology to manage the construction process.
- PLO 12: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- PLO 14: Understand construction accounting and cost control.
- PLO 16: Understand construction project control processes.

#### **Topical Outline, Outcomes, and Method of Assessment**

This course has embedded assessment instruments for the PLO(s) listed below:

- PLO 2: Create oral presentations appropriate to the construction discipline.
- PLO 3: Create a construction project safety plan.
- PLO 13: Understand construction risk management.
- PLO 15: Understand construction quality assurance and control.

An overview of content, course learning outcomes, program learning outcomes, instructional activities, and assessment measures, is listed in the table below.

See Course Schedule Attached.

## **Required Texts/Reading**

#### Textbook

Mincks, M. & Johnston, H. (2011). Construction Jobsite Management. 3rd ed., Delmar-Cengage Learning, New York. (ISBN-10: 1-4390-5573-4).

Text can be obtained at the Cal Poly Book Store, Amazon, and other similar locations.

### **Other Readings**

<u>Building Construction: Principles, Materials, and Systems</u>, 2<sup>nd</sup> Edition (required) – Mehta, Scarborough, and Armpriest – Pearson.

<u>Construction Planning and Scheduling</u>, 2<sup>nd</sup> Edition – Glavinich – AGC of America.

Estimating Construction Costs, 6<sup>nd</sup> Edition – Peurifoy and Oberlander – McGraw Hill.

Construction Contracting, Business and Legal Principles, 2<sup>nd</sup> edition – Bartholomew – Prentice Hall.

### **Other Equipment/Material Requirements**

Calculator, flash drive, engineering paper, laptop computer

### **Classroom Protocol**

This is a LAB CLASS first and foremost. Much of our time will be spent jointly working on exercises and assignments. Class session will also combine reading assignments with lectures and class discussions. Students are expected to have completed the assigned reading before to coming to class and will be quizzed as such. Students are encouraged to participate in class discussions and to bring in subjects related to the class of personal importance to them for further discussion.

<u>Senior Level Course</u>: This is a senior level course you are expected to know and be some-what familiar with the basic construction and construction management tools including construction materials, basic methods, estimating, scheduling, contracts, and have the ability to teach yourself new skills (see student-centered instruction).

<u>Personal Responsibility:</u> You will be treated as an adult - coworker in this class. We will all handled ourselves in as professional a manner as possible. The purpose of this is to attempt to get you ready for the real business environment in construction. Turning in a bid or contract late to your employer or client can literally mean the loss of millions of dollars for your company. While in class the situation might simply mean a non-passing grade, it is my goal to create an environment where acting responsibly is in your best interest and not doing so has consequences.

#### Classroom Civility:

- Always arrive on time. Class begins at 15 minutes past the hour; do not interrupt class by coming in late.
- Do not disrupt the lecture by wandering in and out or by leaving early.

- Do not chatter or whisper to fellow students during a lecture or other inappropriate times (please share with the class your comment or concern).
- Do not read newspapers, books, or do homework for another class during lectures.
- Turn off your cell phone
- Use of laptops during discussions and lectures will be for note taking only.
- No eating in class during lectures and discussions.
- If you are, in the opinion of the instructor, disrupting class you will be asked to leave the room.

## **Assignments and Exams**

The following assignments and their associated point values are subject to change by the instructor as needed.

Points	Description	
150	Reading Quizzes (Pre-Lecture) 15each @ 10points	
200	Exam # 1 – Mid-Term	
100	Exam # 2 – Final (NOT cumulative)	
400	Labs/Exercises 20 each @ 20points	
150	Site Visit Presentation	
100	Class/Group Participation	
1100	Total Points Possible	

# Late/Missed Work and Make-Up Policy

<u>Extra Credit</u>: No extra credit will be given for this class. It is the instructor's prerogative to possibly assign additional lab assignments or quizzes which may be used to replace a previously undesirable score.

<u>Late Assignments</u>: Assignments will be accepted late up to a week past the due date but will only receive ½ credit. Afterwards, no homework or lab assignments will be accepted.

<u>Make-up Assignments:</u> No make-up assignment, quizzes or exams will be permitted with-out acceptable written notification prior to the event.

# **Grading Policy**

Excessive absenteeism and continue tardiness can result in one complete grade reduction in the final course grade. The Instructor reserves the right to adjust a Student's final grade by up to 10%, based on class participation, attendance and contribution during class.

Listed below is the grading scale for this course.

Letter Grade	Percentage	Performance	Definition
А	93 – 100%	Excellent Work	Superior Attainment of Course Learning Outcomes
A-	90 – 92%	Mostly Excellent Work	
B+	87 – 89%	Very Good Work	Good Attainment of Course Learning Outcomes
В	83 – 86%	Good Work	
B-	80 – 82%	Mostly Good Work	
C+	77 – 79%	Very Acceptable Work	Acceptable Attainment of Course Learning Outcomes
С	73 – 76%	Acceptable Work	
C-	70 – 72%	Mostly Acceptable Work	
D+	67 – 69%	Mostly Poor Work	Poor Attainment of Course Learning Outcomes
D	63 – 66%	Poor Work	
D-	60 – 62%	Very Poor Work	
F	0 – 59%	Failing Work	Non-Attainment of Course Learning Outcomes

# **University Policies**

### **Participation and Attendance**

Students are responsible for knowing the University policy regarding class attendance. See this link on <u>Class Attendance Policy</u> provided on the university website.

#### Add/Drop Policy

Students are responsible for knowing the University policies, procedures, and schedule for dropping or adding classes. See this link on <a href="Add/Drop Policy">Add/Drop Policy</a> provided on the university website.

### **Academic Integrity**

Students are responsible for knowing the Academic Honesty Policy.

#### **Students with Disabilities**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Disability Resource Center, Building 124, Room 119, at (805) 756-1395, as early as possible in the term, as accommodations may take several weeks to arrange. If you are a student with a disability, please consider discussing your needs and possible accommodations with me as soon as possible, and visit the <a href="DRC Website">DRC Website</a> for additional information.

#### SensusAccess

SensusAccess is a self-service, alternate media solution made available by Kennedy Library to automatically convert files into a range of alternate media including audio books (MP3 and DAISY), ebooks (EPUB, EPUB3 and Mobi) and digital Braille. The service can also be used to convert inaccessible files such as image-only PDF files, JPG pictures and Microsoft PowerPoint presentations into more accessible and less tricky formats. This service is available at no charge for all Cal Poly students, faculty, staff and alumni. For additional information, visit SensusAccess at the Kennedy Library.

## **Diversity and Inclusion**

Cal Poly considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Cal Poly expects every member of the university community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and at campus events. For more information on resources related to diversity and inclusion, please visit the Office of University Diversity & Inclusivity website at diversity.calpoly.edu.

## **Technical Support and Contact Information**

Support is available for troubleshooting and access issues for PolyLearn. Please visit the <u>PolyLearn Student Support Web Site</u> for further information.

## **Campus Resources to Support Student Learning**

Cal Poly offers programs and resources that are available to assist students during your academic studies, such as the Cal Poly Student Academic Services Web Site.