

# California Polytechnic State University, San Luis Obispo

## Construction Management Department

### CM 460-01, Senior Project Methodology, Winter 2020

<b>Instructor:</b>	Philip Barlow
<b>Office Location:</b>	186-A301
<b>Telephone:</b>	805-756-6165
<b>Email:</b>	plbarlow@calpoly.edu
<b>Office Hours:</b>	MW 9:10 – 11:00 and TTH 8:30 – 10:00
<b>Class Days/Times:</b>	M & W 8:10 – 9:00am
<b>Classroom:</b>	186-B202
<b>Prerequisite(s):</b>	CM313

### Course Description

Introduction to senior project processes, timelines, requirements, and best practices including topic selection, literature review, methodology, and paper formatting. 2 lectures.

### Course Goals and Learning Outcomes

#### Course Goals:

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

- Think critically and creatively on a comprehensive project related to construction management
- Communicate effectively in a professional manner
- Engage in measurable Life Long Learning outcomes:
  - Locates and gather credible information from variety of sources
  - Summarizes the main ideas from information gathered
  - Evaluates information (accuracy, authority, timeliness, and bias)
  - Synthesizes main idea, recognize interrelationships, and supporting evidence
  - Draws conclusions
  - Reconcile differences by instigation differing viewpoints
  - Manage, assess, and synthesize information for personal and professional growth.
- Expand Cal Poly's capacity for institutional research
- Apply acquired competencies to successful completion

#### Course Learning Outcomes (CLOs):

1. Review and employ the senior project material contained on the Construction Management Website.
2. Identify, categorize, and explain the various aspects of undergraduate research and what it involved with creating "new knowledge" in a field of study.

3. Understand plagiarism as it relates to research and academic writing.
4. Generate, design and formulate several potential senior project ideas from a variety of sources.
5. Conduct a detailed and formal literature review in an area of interest which summarizes, assess, and evaluates the body of knowledge in this chosen area of study.
6. Select a working final project topic.
7. Explain, compare, and contrast various research methodologies.
8. Apply and appraise which research methodology best supports your area of research.
9. Judge, and explain the various kinds of data collection methods.
10. Select, design and support a data collection method which best supports your area of research.
11. Produce documents that completely demonstrate a thorough understanding of the proper paper structure.
12. Recognize and distinguish between the supportive role and the student's role involved in a senior project.
13. Create both a completed senior project proposal and poster board.

## **Student 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 25 program learning outcomes (PLOs) that equal or exceed the ACCE SLOs and 5 additional idiosyncratic PLOs.

This course supports the following PLOs:

PLO 1: Create written communications appropriate to the construction discipline.

PLO 22: Understand the importance of creating and planning for continuing education and lifelong learning.

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

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

None.

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**

Naoum, S. G. (2013). Dissertation Research & Writing for Construction Students, 3rd Edition, Routledge (ISBN#13:978-0-415-53844-2)

Available at the University Bookstore and in PDF form.

## Other Readings

Fellows, R. and Liu, A. (2008). Research Methods for Construction, 3rd Edition, Wiley-Blackwell.  
(ISBN# 13:978-1-4051-7790-0)

Available at Amazon.

## Other Equipment/Material Requirements

Lap-top computers available when requested by instructor.

## Classroom Protocol

As a student, you are responsible to:

- Always arrive on time.
- 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 and close laptop during discussions and lectures.
- 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.

Senior Level Course: 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).

Personal Responsibility: You will be treated as an adult - coworker in this class. We will all handle 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.

## Assignments and Exams

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

Description	Points
Attendance & Participation	30
Assignments (8 each)	180
Wiki and Chapter Quizzes	90
SP Proposal and Poster Board	50
Exam (final)	50
<b>Total Points Possible</b>	<b>400</b>

## Late/Missed Work and Make-Up Policy

All assignments are to be turned in at the beginning of the class on the due date, unless otherwise advised by your professor. Late assignments will not be accepted. In-class assignments or quizzes may be given throughout the quarter at the discretion of the instructor. Failure to attend a class period during which in-class activities are performed will result in a grade of 0 for that particular assignment except for previously notified and officially excused documented absences. Under unique circumstances if your instructor approves late reading assignments, speaker reaction papers, current event reports an automatic deduction to your assignment grade will be made.

Failure to attend a scheduled quiz or exam or in class assignment will result in a grade of zero. Makeup quizzes and exams will not be given unless you notify the instructor of a documented excusable absence in advance. Quiz and Exam make-ups will be given only under special circumstances; you must make arrangements with your instructor prior to the quiz/exam date. The make-up quiz/exam has to be taken prior to the class period in which the graded papers have been handed back to the class for review. All quiz/exams will be distributed after grading for student analysis and review, then collected and retained by the instructor. Quiz/Exams may have multiple choice, true false, matching, short answer and essay questions.

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.

## Grading Policy

Participation can be subjective. Students are expected to attend all classes both physically and mentally. Students are expected to maintain an acceptable level of professionalism that exemplifies courtesy and mutual respect in the classroom at all times. Discourteous and disruptive classroom behavior will not be tolerated. The following specific guidelines for proper classroom conduct are expected at all times. Students who violate these rules will be asked to leave the room.

Your final exam will be administered using scantrons. You will be notified prior as to the date of the exam. It will be your responsibility to bring a scantron with you the day of the exam. The exams will consist of multiple choice and true false. All exams will be distributed after grading for student analysis and review, and then collected by the instructor. Exam make-ups will be given only under special circumstances; you must make arrangements with your instructor prior to the exam date. The make-up exam has to be taken prior to the class period in which the graded exams will be handed back to the class for review. Review your syllabus and tentative schedule at the end of this document for exam/quiz schedule.

Listed below is the grading scale for this course.

Letter Grade	Percentage	Performance	Definition
A	93 – 100%	Excellent Work	Superior Attainment of Course Learning Outcomes
A-	90 – 92%	Mostly Excellent Work	
B+	87 – 89%	Very Good Work	

Letter Grade	Percentage	Performance	Definition
B	83 – 86%	Good Work	Good Attainment of Course Learning Outcomes
B-	80 – 82%	Mostly Good Work	
C+	77 – 79%	Very Acceptable Work	Acceptable Attainment of Course Learning Outcomes
C	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

Insert student participation and attendance expectations here.

Students are responsible for knowing the University policy regarding class attendance. See this link on [Class Attendance Policy](#) 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 [Add/Drop Policy](#) 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 [DRC Website](#) 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), e-books (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](https://diversity.calpoly.edu).

## **Basic Needs: Food, Housing, Financial, and Mental Wellbeing**

Basic needs insecurity is a growing struggle that impacts students' academic and mental and physical wellbeing. When students have inconsistent access to nutritious food, housing, financial instability and mental health instability, a student's retention and progress to graduation can be negatively impacted.

At Cal Poly, 1 in 4 students are food insecure, meaning they struggle to acquire food. Factors like increasing cost of higher education, lack of awareness of available support, and stigma and shame have increased the risk of undergraduate, graduate, and professional students being basic needs insecure.

If you are one of those students who faces challenges securing food, housing or other basic needs, you are not alone and Cal Poly can help. We invite you to learn about the many resources available to support you through Cal Poly's Basic Needs initiative at [basicneeds.calpoly.edu](https://basicneeds.calpoly.edu).

## **Technical Support and Contact Information**

Support is available for troubleshooting and access issues for PolyLearn. Please visit the [PolyLearn Student Support Web Site](#) 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](#).