

California Polytechnic State University, San Luis Obispo

Construction Management Department

CM 335-01, Construction Accounting, Fall 2019

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Office Hours:	M, T, W 11-1:15pm;
Class Days/Times:	T & Tr 9-11am
Classroom:	186-B202
Prerequisite(s):	CM 115, CM 232 and BUS 215

Course Description

Fundamentals of construction accounting principles to include income recognition, job cost control, cash flow analysis and associated cost reports. 2 activities.

Course Goals and Learning Outcomes

Course Goals:

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

- Comprehend basic accounting systems and transactions as applied to construction companies, with emphasis on elements that are unique to the construction industry; demonstrated through the mastery of learning objectives #1 through #10;
- Apply the knowledge and comprehension of basic accounting systems and transactions to the management of costs, profits, and cash flow in construction companies; demonstrated through the mastery of learning objectives #11 through #24;
- • Comprehend the basic financial instruments that are commonly used by construction companies and apply basic principles of compounding to the evaluation of alternative financial instruments; demonstrated through the mastery of learning objectives #25 through #29.

Course Learning Outcomes (CLOs):

1. Appreciate the role of financial management in the construction industry;
2. Distinguish between cost reporting and cost management;
3. Describe cash, accrual, completed contracts, and percentage of completion accounting methods;
4. Use general ledgers, job cost ledgers and equipment ledgers;

5. Build basic income statements and balance sheets as would be done by construction companies, while recognizing the purpose of equipment and other contra accounts;
6. Understand how transactions post to the income statement and balance sheet;
7. Distinguish capital leases and operating leases
8. Identify committed costs and non-committed costs;
9. Calculate cost and profit in excess of billings; billings in excess of cost and profit; cost to complete, percentage complete, and variance;
10. Extract financial ratios from financial statements and differentiate financial ratios for liquidity, leverage, efficiency and profitability;
11. Explain accounting processes for material purchases, labor costs, subcontractor costs, and equipment rental;
12. Discuss earned value analysis;
13. Compare cash equivalents and allowances with reimbursements;
14. Compute employee take-home pay, employer payroll burdens, taxes and insurance costs and burden markup;
15. List general overhead costs and classify fixed and variable overhead;
16. Determine contribution margin, contribution margin ratio, break-even volume of work, break-even contribution margin ratio, profit & overhead markup and gross profit margin.
17. Describe methods of allocating general overhead and analysis of profit centers;
18. Produce cash flow projections for projects with progress payments and single payments;
19. Discriminate between tax deductions and tax credits;
20. Formulate basic personal and corporate income taxes;
21. Predict marginal tax rates, incremental tax rates, and taxable income;
22. Evaluate the tax consequences of depreciation and identify nondeductible expenses/costs;
23. Appraise cash flows incorporating construction operations, general overhead, income taxes, and loan payments;
24. Determine cash balances and minimum monthly bank balances;
25. Identify secured and unsecured financial instruments;
26. Describe simple interest, compound interest, nominal interest, annual percentage yield, and effective annual interest rate;
27. Evaluate interest and remaining principal for loans compounded at different periods and rates and prepare an amortization schedule;
28. Compare and contrasts short term loans with discounted simple interest to lines of credit with commitment fees or compensating balances; and
29. Compare and contrast leasing, trade financing, credit card financing and equity financing.

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:

Choose from one of the PLOs listed below. List PLOs in numerical order.

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

PLO 6: Analyze professional decisions based on ethical principles.

PLO 10: Apply electronic-based technology to manage the construction process.

PLO 13: Understand construction risk management.

PLO 14: Understand construction accounting and cost control.

PLO 16: Understand construction project control processes.

PLO 21: Understand the role construction managers play in enhancing the needs of society.

Topical Outline, Outcomes, and Method of Assessment

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

PLO 14: Understand construction accounting and cost control.

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

Session	Topical Outline	CLOs	PLOs	Instructional Activities	Method of Assessment
1	Introduction Construction Financial Management	1,2	10,14		
2	Construction Accounting Systems	1,3,5,6	14		
3	Construction Accounting Systems	1,3,5,6	13,14		
4	Accounting Transactions	1,3,5,6	14		
5	Construction Accounting Transactions	1,3,5,6	14		
6	Deprecation	1,3,5,22	13,14		
7	Analysis of Financial Statements	1,2,10,12	6,14		
8	Managing Costs	1,2,7,16	14		
9	Determining Labor Burden	1,13,14	13,14		
10	Managing General Overhead Costs	1,4,9,15,16,17	14		
11	Setting Profit Margins for Bidding	1,2,4,8,11,25	1,6,10,14		
12	Profit Center Analysis	1,9,18	1,14,21		
13	Cash Flows for Construction Projects	1,2,4,8,11,18	14,16		
14	Projecting Income Taxes	1,4,19,20,21,	6,10,14,21		
15	Cash Flows for Construction Companies	1,4,11,18,24	13,14,16		

Session	Topical Outline	CLOs	PLOs	Instructional Activities	Method of Assessment
16	Financing a Company's Financial Needs	1,4,25	1,14,16		

Required Texts/Reading

Textbook

Peterson, S. (2013). *Construction Accounting and Financial Management*, 3rd edition. Upper Saddle River, NJ: Prentice Hall. ISBN 0132675055

Other Readings

None

Other Equipment/Material Requirements

Basic calculator (Sharp EL-243SB, Texas Instruments TI-503 SV, or equal); or a Financial Calculator (HP 10BII, HP 12C, Texas Instruments BAII Plus, or equal.)

Notebook computer with the following, or later, version of software installed: MS Word 2013, MS Excel 2013, and Adobe Reader 10.

Classroom Protocol

As a student, you are responsible to:

Prior to most classes you must:

- Read a specific chapter or chapters from the textbook;
- Take a pre-class online quiz

During most subsequent classes you will:

- Work as a team on a problem (or problems) and turn in one team-generated solution.

After completing each module you must:

- Complete a take-home post-module exam;
- Take an online peer review survey.

On the last day of class you must:

- Take a final exam.
- Assignments and Exams

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

Description	Points
Pre Class Quizzes	140 Pts (14 Quizzes)
Post Module Exams	240 pts
Final Exam/s	320 pts
Homework Assignments	300 pts
Total Points Possible	1,000 Point Possible

Late/Missed Work and Make-Up Policy

Insert your late/missed work and make-up policy here.

Grading Policy

Insert your grading policy here.

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	Good Attainment of Course Learning Outcomes
B	83 – 86%	Good Work	
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](#).

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](#).