BS CONSTRUCTION
MANAGEMENT

Program Learning Outcomes
1. Create written communications appropriate to the construction discipline.
2. Create oral presentations appropriate to the construction discipline.
3. Create a construction project safety plan.
4. Create construction project cost estimates.
5. Create construction project schedules.
6. Analyze professional decisions based on ethical principles.
7. Analyze construction documents for planning and management of construction processes.
8. Analyze methods, materials, and equipment used to construct projects.
9. Apply construction management skills as a member of a multidisciplinary team.
10. Apply electronic-based technology to manage the construction process.
11. Apply basic surveying techniques for construction layout and control.
12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
13. Understand construction risk management.
15. Understand construction quality assurance and control.
16. Understand construction project control processes.
17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.
18. Understand the basic principles of sustainable construction.
19. Understand the basic principles of structural behavior.
20. Understand the basic principles of mechanical, electrical and piping systems.
21. Understand the role construction managers play in enhancing the needs of society.
22. Understand the importance of creating and planning for continuing education and lifelong learning.
23. Understand the key leadership characteristics that are successful in building and strengthening construction management teams.
24. Understand the importance of recognizing cultural differences and the role culture plays in influencing project success for a construction team.
25. Understand the benefits of respecting the unique and diverse backgrounds individuals bring to a construction team.

Degree Requirements and Curriculum
In addition to the program requirements listed on this page, students must also satisfy requirements outlined in more detail in the Minimum Requirements for Graduation (http://catalog.calpoly.edu/generalrequirementsbachelorsdegree/#generaleducationtext) section of this catalog, including:
- 60 units of upper division courses
- Graduation Writing Requirement (GWR)

MAJOR COURSES
CM 102 Introduction to Construction Management 2
CM 113 Construction Materials and Assemblies 2
CM 114 Construction Materials and Assemblies Lab 2
CM 115 Fundamentals of Construction Management 6
CM 214 Residential Construction Management 5
CM 232 Evaluation of Cost Alternatives 3
CM 280 Building Information Modeling 2
CM 313 Commercial Construction Management 5
CM 314 Heavy Civil Construction Management 5
CM 317 Sustainability and the Built Environment (Area B7) 4
CM 318 Housing and Communities (D5) 4
CM 334 Construction Law 2
CM 335 Construction Accounting 2
CM 411 Specialty Contracting Construction Management 5
CM 413 Jobsite Construction Management 5
CM 443 Management of the Construction Firm 3
CM 450 Integrated Project, Design and Program Management 5
CM 460 Senior Project Methodology 2
CM 461 Senior Project I 1
CM 462 Senior Project II 1

Technical Electives
Select from the following: 8
CM 420 Service / Experiential Learning
CM 421 Emerging Trends
CM 422 Professional Preparation
CM 423 Construction Materials / Assemblies
CM 424 Construction Technology
CM 425 Sustainability and Environment
CM 426 International Construction Studies
CM 485 Cooperative Education Experience (6 units maximum)

SUPPORT COURSES
Select from the following: 6
ARCE 211 & ARCE 212 Structures I and Structures II (3, 3)
ME 211 Engineering Statics & CE 204 and Mechanics of Materials I (3, 3)
ARCE 226 Introduction to Structural Systems 3

Note: No major or support courses may be selected as credit/no credit.

• 2.0 GPA
• U.S. Cultural Pluralism (USCP)
ARCE 315: Introduction to Structural Design 4
ARCE 421: Soil Mechanics 3
BRAE 239: Engineering Surveying 4
or CM 239: Construction Surveying
BUS 207: Legal Responsibilities of Business 4
BUS 214: Financial Accounting 4
BUS 215: Managerial Accounting 4
ECON 201: Survey of Economics (D2) 4
EDES 123: Principles of Environmental Design (E) 4
ENGL 310: Corporate Communication (GWR) 4
GEOL 201: Physical Geology 3
MATH 141: Calculus I (B1) 1
MATH 182: Calculus for Architecture and Construction Management 2
MATH 142: Calculus II substitutes for MATH 182.
PHYS 141: General Physics IA 4
Select the following: 4
PHYS 132: General Physics II (B3 & B4) 1
CHEM 124: General Chemistry for Physical Science and Engineering I (B3 & B4) 1
CHEM 127: General Chemistry for Agriculture and Life Science I (B3 & B4) 1
STAT 251: Statistical Inference for Management I (B1) 1
or STAT 312: Statistical Methods for Engineers
Select any upper-division BUS, ECON, ITP course

GENERAL EDUCATION (GE)
(See GE program requirements below.) 44
FREE ELECTIVES
Free Electives 0

Total units 189

1 Required in Major/Support; also satisfies GE.
2 MATH 142 Calculus II substitutes for MATH 182.

General Education (GE) Requirements

- 72 units required, 28 of which are specified in Major and/or Support.
- See the complete GE course listing (http://catalog.calpoly.edu/generalrequirementsbachelorsdegree/#generaleducationtext).
- Minimum of 12 units required at the 300 level.

Area A - Communication
A1: Expository Writing 4
A2: Oral Communication 4
A3: Reasoning, Argumentation and Writing 4

Area B - Math, Science, and Quantitative Reasoning
B1: Mathematics/Statistics (8 units in Support) 1
B2: Life Science 4
B3: Physical Science (4 units in Support) 1
B4: One lab taken with either a B2 or B3 course

Area C - Arts and Humanities
C1: Literature 4
C2: Philosophy 4
C3: Fine/Performing Arts 4
C4: Upper-division elective 4

Area D - Society and the Individual
D1: The American Experience (Title 5, Section 40404 requirement) 4
D2: Political Economy (4 units in Support) 1
D3: Comparative Social Institutions 4
D5: Upper-division elective (4 units in Major) 1

Area E - Lifelong Learning and Self-Development
E: Lower-division elective (4 units in Support) 1

Total units 44

1 Required in Major/Support; also satisfies GE.