

BS ARCHITECTURAL ENGINEERING

2019-2020

updated
02.25.19

Units Required 196

NOTE: This document can be used as a compact display of courses and other curricular requirements at the time of publication of the 2019-2020 catalog. The Degree Progress Report must be used to track students' progress in all degree requirements, throughout their Cal Poly career.

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

Note: All ARCE majors must obtain a grade of C- or better in ARCE courses that are prerequisites for other ARCE courses.

MAJOR COURSES (71)	<i>Units</i>
ARCE 106 Intro Building Systems	2
ARCE 211 Structures I	3
ARCE 212 Structures II	3
ARCE 223 Mechanics of Structural Members	3
ARCE 224 Mech of Structural Members Lab	1
ARCE 227 Structures III	2
ARCE 257 Structural CAD for Bldg Design	2
ARCE 302 Structural Analysis	3
ARCE 303 Steel Design I	3
ARCE 304 Timber Design	3
ARCE 305 Masonry Design	2
ARCE 306 Matrix Analysis of Structures	3
ARCE 352 Struct Comp Analysis	1
ARCE 353 Matrix Struct Comp Analysis	1
ARCE 354 Numerical Analysis Laboratory	1
ARCE 371 Structural Systems Laboratory	3
ARCE 372 Steel Structures Design Laboratory	3
ARCE 412 Dynamics of Framed Structures	3
ARCE 421 Soil Mechanics	3
ARCE 422 Foundation Design	3
ARCE 444 Reinforced Concrete Design	4
ARCE 451 Timb/Mason Design Lab	3
ARCE 452 Concrete Struct Design & Const. Lab	3
ARCE 476 Building Systems	3
ARCE 483 Seismic Analysis and Design	3
ME 212 Engineering Dynamics	3
Senior Project	4
ARCE 415 Interdisciplinary Capstone Project	

SUPPORT COURSES (81)

ARCH 131 Design and Visual Communication 1.1	4
ARCH 132 Design and Visual Communication 1.2	4
ARCH 133 Design and Visual Communication 1.3	4
ARCH 217/218/219/ARCE 260 (C3) ¹	4
BRAE 237 Intro Engineering Surveying	2
CHEM 124 Gen Chem for Phy Sci & Engr I (B3/B4) ¹	4
CM 115 Fundamentals of Construction Mgmt	6
CM 232 <i>or</i> IME 314	3
CSC 231 Programming for Engr Students	2
EE 201 Electric Circuit Theory	3
GEOL 201 Physical Geology	3
MATH 141 Calculus I (B1) ¹	4
MATH 142 Calculus II (B1) ¹	4
MATH 143 Calculus III (Add'l Area B) ¹	4
MATH 241 Calculus IV	4
MATH 244 Linear Analysis I	4

ME 302 Thermodynamics I	3
ME 341 Fluid Mechanics I	3
PHYS 141 General Physics IA (Add'l Area B) ¹	4
PHYS 132 General Physics II	4
PHYS 133 General Physics III	4
STAT 312 <i>or</i> STAT 321 (B6) ¹	4

GENERAL EDUCATION (GE)

44

72 units required, 28 of which are specified in Major and/or Support

Minimum of 8 units required at the 300 level.

Area A Communication

12

A1 Expository Writing	4
A2 Oral Communication	4
A3 Reasoning, Argumentation & Writing	4

Area B Math, Science, and Quantitative Reasoning

4

B1 Math/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	
B6 Upper-division Area B (4 units in Support) ¹	
Additional Area B Units (8 units in Support) ¹	

Area C Arts and Humanities

12

C1 Literature	4
C2 Philosophy	4
C3 Fine/Performing Arts (4 units in Support) ¹	
C4 Upper-division elective	4

Area D Society and the Individual

12

D1 The American Experience (40404)	4
D2 Political Economy.....	4
D3 Comparative Social Institutions	4

Area E Lifelong Learning and Self-Development

4

(formerly Area D4)

FREE ELECTIVES 0

¹ Required in Support; also satisfies GE

OTHER DEGREE REQUIREMENTS:

- **Cal Poly, Higher Ed, and Major GPA must all be at least 2.00**
- **For students admitted Fall 2016 and after, a grade of C- or higher is required in GE A1, A2, A3, and one GE B1 course**

All students must complete:

- **United States Cultural Pluralism Requirement**
- **Graduation Writing Requirement**
- **60 units Upper Division (any 300-400 level classes)**
- **Upper Division units in the Major: 27**
- **Residency Requirements: See Degree Progress Report for details**