

2011-13 Cal Poly Catalog
Architectural Engineering Department

BS ARCHITECTURAL ENGINEERING

- ☐ 60 units upper division ☐ GWR
 - ☐ 2.0 GPA ☐ USCP
- * = Required in Support; also satisfies GE

Note: No major or support courses may be taken 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

| | |
|--|-----------|
| ARCE 211 Structures I..... | 3 |
| ARCE 212 Structures II..... | 3 |
| ARCE 223 Mechanics of Structural Members | 3 |
| ARCE 224 Mechanics of Structural Members Lab | 1 |
| ARCE 225 Dynamics or ME 212 Engrg Dynamics | 3 |
| ARCE 227 Structures III | 2 |
| ARCE 257 Structural CAD for Building Design | 2 |
| ARCE 302 Structural Analysis..... | 4 |
| ARCE 303 Steel Design I..... | 3 |
| ARCE 304 Timber Design | 3 |
| ARCE 305 Masonry Design | 2 |
| ARCE 306 Matrix Analysis of Structures | 3 |
| ARCE 351, 352, 353 Structural Computing | |
| Analysis I, II, III | 1,1,1 |
| 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 Lab | 3 |
| ARCE 451 Timber/Masonry Structures Design and | |
| Constructability Laboratory..... | 3 |
| ARCE 452 Concrete Structures Design and | |
| Constructability Laboratory..... | 3 |
| ARCE 483 Seismic Analysis and Design | 4 |
| Advanced structural electives..... | 6 |
| Select 6 units from: | |
| ARCE 403, 410, 414, 423, 445, 446, 447, 448, | |
| 449, 471, 473, 475 (3/12/14)(9/15/15) | |
| Interdisciplinary senior project..... | 5 |
| Select 5 units from: | |
| ¹ ARCE 415 (5) or 453 (3) and 460 (2) | |
| | 75 |

SUPPORT COURSES

| | |
|--|-------|
| ARCH 106 Materials of Construction..... | 2 |
| ARCH 131, 132, 133 Design and Visual | |
| Communication 1.1, 1.2, 1.3..... | 4,4,4 |
| ARCE 260 or ARCH 217/ARCH 218/ARCH 219 | 4 |
| (C3)* (2/7/13)..... | |
| BRAE 237 Intro to Engineering Surveying..... | 2 |
| CHEM 124 General Chem/Engr Discipline (B3/B4)* | 4 |

| | |
|--|-----------|
| CM 115 Fundamentals of Construction Mgmt..... | 6 |
| CM 332 Evaluation of Cost Alternatives or | |
| IME 314 Engineering Economics | 3 |
| CSC 231 Programming for Engineering Students or | |
| CSC 234 C and UNIX (3) | 2 |
| EDES 101 Intro to Architecture and Env Design | 2 |
| EE 201 Electrical Circuit Theory..... | 3 |
| GEOL 201 Physical Geology..... | 3 |
| MATH 141, 142 Calculus I, II (B1)* | 4,4 |
| MATH 143 Calculus III (Add'l Area B)*..... | 4 |
| MATH 241 Calculus IV | 4 |
| MATH 244 Linear Analysis I..... | 4 |
| ME 302 Thermodynamics..... | 3 |
| ME 341 Fluid Mechanics..... | 3 |
| PHYS 141 General Physics IA (Add'l Area B)* | 4 |
| PHYS 132, 133 General Physics | 4,4 |
| STAT 312 Statistical Methods for Engineers or | |
| STAT 321 Probability and Statistics for | |
| Engineers and Scientists (B6)* | 4 |
| | 85 |

GENERAL EDUCATION (GE)

72 units required, 28 of which are specified in Support.
 →See page 39 for complete GE course listing.
 →Minimum of 8 units required at the 300 level.

Area A Communication (12 units)

| | |
|--|---|
| A1 Expository Writing | 4 |
| A2 Oral Communication | 4 |
| A3 Reasoning, Argumentation, and Writing * | 4 |

Area B Science and Mathematics (4 units)

| | |
|--|---|
| B1 Mathematics/Statistics * 8 units in Support | 0 |
| B2 Life Science | 4 |
| B3 Physical Science * 4 units in Support | 0 |
| B4 One lab taken with either a B2 or B3 course | |
| B5 (not required for Engineering students) | |
| B6 Upper-division Area B * 4 units in Support | 0 |
| Additional Area B units* 8 units in Support | 0 |

Area C Arts and Humanities (12 units)

| | |
|---|---|
| C1 Literature | 4 |
| C2 Philosophy | 4 |
| C3 Fine/Performing Arts * 4 units in Support..... | 0 |
| C4 Upper-division elective | 4 |

Area D/E Society and the Individual (16 units)

| | |
|--|-----------|
| D1 The American Experience (40404) | 4 |
| D2 Political Economy | 4 |
| D3 Comparative Social Institutions | 4 |
| D4 Self Development (CSU Area E) | 4 |
| | 44 |

FREE ELECTIVES.....

0
204

¹ If ARCE 415 is taken for 4 units then 1 additional unit of Free Electives is required. (9/03/14)