BS ARCHITECTURAL ENGINEERING

2007-2009 Cal Poly Catalog

Architectural Engineering Department
Engineering West (21), Room 110
(805) 756-1314

☐ 60 units upper division  ☐ GWR
☐ 2.0 GPA  ☐ USCP

*= Satisfies General Education requirement

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........ 4
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 ...................................... 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 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 453 Senior Project Laboratory..................... 3
ARCE 483 Seismic Analysis and Design.............. 4
Advanced structural electives .............................. 6
Approved professional electives
STAT 321 Prob & Stat for Engr (10-31-07) .......... 4

SUPPORT COURSES
ARCH 105 Professional Practice 1...................... 1
ARCH 106 Materials of Construction .................. 2
ARCH 121, 122, 123 Design and Drawing 1.1, 1.2, and 1.3 ....................................................... 3,3,3
ARCH 221 Architectural Design Fundamentals...... 3
ARCH 217/ARCH 218/ARCH 219 (C3)* .............. 4
BRAE 237 Intro to Engineering Surveying .......... 2
CHEM 124 General Chem/Engr Discipline (B3/B4)* 4
CM 211 Construction Contract Documents .......... 4
CM 332 Evaluation of Cost Alternatives or
IME 314 Engineering Economics ....................... 3
CSC 231 Fortran for Engineering Students or
CSC 234 C and UNIX (3).................................. 2
CSC 341 Numerical Engineering Analysis or
approved equivalent (B6)*.............................. 4
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

GENERAL EDUCATION (GE)
72 units required; 28 units are in Support.
→Minimum of 8 units required at the 300-400 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 of Engineering)
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

ELECTIVES .................................................... 0

76

204