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 ............. 4
ARCE 225 Dynamics or ME 212 Engnr 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
Select 6 units from:
  ARCE 403, 410, 414, 423, 445, 446, 447, 448, 471, 475 (5/2/13)(3/12/14)
Professional elective: STAT 312 Statistical Methods for Engineers or STAT 321 Probability and Statistics for Engineers and Scientists .......... 4

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SUPPORT COURSES

ARCH 105 Professional Practice 1 or ARCE 354
Numerical Analysis Laboratory (2/7/13) ............... 1
ARCH 106 Materials of Construction ..................... 2
ARCH 121, 122, 123 Design and Drawing 1,1,1, 3,3,3
4,2, and 1,3 ARCH 131, 132, 133 1,1, 1,2, 1,3 4,4,4
ARCH 221, Architectural Design Fundamentals ...... 3
(5/24/10)
ARCE 260 or ARCH 217/ARCH 218/ARCH 219
(C3)* (2/7/13) ................................................. 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

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GENERAL EDUCATION (GE)

72 units required, 28 of which are specified in Support.
→See page 50 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 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

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FREE ELECTIVES .................................................. 0

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