

Note: No Major or Support courses may be selected as credit/no credit.

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

MAJOR COURSES		
ARCE 106	Introduction to Building Systems	2
ARCE 211	Structures I	3
ARCE 212	Structures II	3
ARCE 223	Mechanics of Structural Members	3
ARCE 224	Mechanics of Structural Members Laboratory	1
ARCE 227	Structures III	2
ARCE 257	Structural CAD for Building 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	Structural Computing Analysis	1
ARCE 353	Matrix Structural Computing 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	Timber & Masonry Structures Design & Constructability Lab	3
ARCE 452	Concrete Structures Design and Constructability	3
ARCE 476	Architectural Engineering Building Systems	3
ARCE 483	Seismic Analysis and Design	3
ME 212	Engineering Dynamics	3
Senior Project		
ARCE 415	Interdisciplinary Capstone Project	4
Total Major Units		71

SUPPORT COURSES		
ARCH 131	Design and Visual Communication 1.1	12
& ARCH 132	and Design and Visual Communication 1.2	
& ARCH 133	and Design and Visual Communication 1.3	
ARCH 217	History of World Arch: Prehistory - Middle Ages (C1) ¹	4
or ARCH 218	History of World Arch: Middle Ages - 18th Century	
or ARCH 219	History of World Arch: 18th Century - Present	
or ARCE 260	History of Structures	
BRAE 237	Introduction to Engineering Surveying	2
CHEM 124	Gen CHEM for Physical Sci & ENGR I (B1 & B3) ¹	4
CM 115	Fundamentals of Construction Management	6
CM 232	Evaluation of Cost Alternatives	3
or IME 314	Engineering Economics	
CSC 231	Programming for Engineering Students	2
EE 201	Electric Circuit Theory	3
GEOL 201	Physical Geology	3
MATH 141	Calculus I (B4) ¹	4
MATH 142	Calculus II (B4) ¹	4
MATH 143	Calculus III (Area B Electives) 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 (Area B Electives) ¹	4
PHYS 142	General Physics II	4
PHYS 143	General Physics III	4
STAT 312	Statistical Methods for Engineers (UD-B) ¹	4
or STAT 321	Probability & Statistics for Engineers & Scientists	
Total Support Units		81

GENERAL EDUCATION		
Area A English Language Communication and Critical Thinking		
A1	Oral Communication	4
A2	Written Communication	4
A3	Critical Thinking	4
Area B Scientific Inquiry and Quantitative Reasoning		
B1	Physical Science (4 units in Support) ¹	0
B2	Life Science	4
B3	One lab taken with either a B1 or B2 course	
B4	Mathematics/Quantitative Reasoning (8 units in Support) ¹	0
Upper-Division B (4 units in Support) ¹		0
Area B Electives (8 units in Support) ¹		0
Area C Arts and Humanities		
Lower-division courses in Area C must come from three different subject prefixes.		
C1	Arts (4 units in Support) ¹	0
C2	Humanities	4
Lower-Div C Elective - Select a course from C1 or C2 (NO ARCH)		4
Upper-Division C		4
Area D Social Sciences		
D1	American Institutions (Title 5, Section 40404 Requirement)	4
Area D Elective - Select either a lower-division D2 or upper-division D course.		4
Area E Lifelong Learning and Self-Development		
Lower-Division E		4
Area F Ethnic Studies		
F	Ethnic Studies	4
Total GE Units		44
FREE ELECTIVES		0
TOTAL DEGREE UNITS		196

FOOTNOTES	
1 Required in Major or Support; also satisfies General Education (GE) requirement.	