

Updated 7/13/2022

Notes:
MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET
 * Refer to current catalog for prerequisites.
 ** One course from each of the following GE areas must be completed: A1, A2, A3, B2, C2, Lower-Division C Elective, Upper-Division C should be taken only after Junior standing is reached (90 units).
 Refer to online catalog for GE course selection, USCP and Graduation Writing Requirement (GWR).
 USCP requirement can be satisfied by some (but not all) courses within GE categories: Upper-Division C, D1, D2, or E.
Quarterly advisor meetings are required prior to registration.
A corequisite course can be taken previously or concurrently. Concurrent courses must be taken together.
All ARCE Majors must receive a C- or better in ARCE Courses that are prerequisites for other ARCE courses.
¹ Required in Major or Support: also satisfies General Education (GE) requirement.

Course Title
Course # (Units)
 (Prerequisite)
 [GE Area]

Major (71)
Support (81)
General Ed. (44)

F= FALL
W= WINTER
S= SPRING

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.