

# B.S. IN ARCHITECTURAL ENGINEERING

## CATALOG YEAR 2017-2018

Below is the *advised sequence* of courses for this degree program and prerequisites as of 03/07/17. The official degree requirements and prerequisites can be found in the University General Catalog and the prerequisites are subject to change.

COURSE NUMBER AND TITLE	UNITS	PREREQUISITES
<b>1<sup>ST</sup> SEMESTER</b>		
MATH 122A/B or MATH 125 Calculus I with Applications	5/3	Appropriate Math Placement
CHEM 151 General Chemistry I or CHEM 105A/106A	4	Appropriate Math Placement
ENGL 101 or 107 or 109H First-Year Composition	3	
ENGR 102A/102B Introduction to Engineering or ENGR 102	3	Concurrent enrollment or completion of MATH 122B or 125
Tier I General Education	3	
<b>2<sup>ND</sup> SEMESTER</b>		
MATH 129 Calculus II	3	MATH 122B or 125 with C or better
ENGL 102 or 108 or 109H First-Year Composition	3	ENGL 101 or ENGL 107
PHYS 141 Introductory Mechanics or PHYS 161H	4	MATH 122B or 125 Concurrent enrollment or completion of MATH 129
Tier I General Education	3	
Tier I General Education	3	
<b>3<sup>RD</sup> SEMESTER</b>		
ARCE 201 Intro to Architecture Engineering	1	MATH 122B or 125
CE 214 Statics	3	PHYS 141 or 161H; MATH 129
MATH 223 Vector Calculus	4	MATH 129 with C or better
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	4	For PHYS 241 or 261H: PHYS 141 or 161H, MATH 129
ARC 220 History of Applied Building Technology - # See Note Below – Tier II Humanities option	3	ENGR 102A/B or 102
<b>4<sup>TH</sup> SEMESTER</b>		
CE 215 Mechanics of Materials	3	CE 214
CE 218 Mechanics of Fluids	3	CE 214 or ENGR 211C
MATH 254 Intro to Ordinary Differential Equations	3	MATH 129 or 223 with C or better
ARCE 210 Build Information Modeling	3	ENGR 102A/R or 102
ARCE 223 Environmental Adaptive Systems	3	PHYS 141
Tier I General Education	3	

# If ARC 220 fulfills the Tier II Humanities requirement, then an additional technical elective must be taken to fulfill the unit requirement. If not used as a Tier II Humanities then ARC 220 will fulfill the course requirement and no additional technical elective is needed.

COURSE NUMBER AND TITLE	UNITS	PREREQUISITES
<b>CURRENT PREREQUISITES FOR UPPER DIVISION COURSES CAN BE FOUND IN THE UA GENERAL CATALOG</b>		
<b>ADVANCED STANDING IS REQUIRED FOR 3XX AND 4XX COURSES (SEE ADVISOR FOR REQUIREMENTS)</b>		
<b>5<sup>TH</sup> SEMESTER</b>		
AME 230 Thermodynamics	3	
CE 301 Engineering Communications	3	
CE 310 Probability and Statistics in Civil Engineering	3	
CE 333 Elementary Structural Analysis	3	
CE 381 Construction Engineering Management	3	
ENGR 211M Circuits	1	
<b>6<sup>TH</sup> SEMESTER</b>		
AME 442 HVAC System Design	3	
CE 334 Structural Design in Steel	3	
ARCE 320 Power Systems Engineering	3	
ARCE 330 Architecture Lighting	3	
CE 389 Materials Lab	1	
Tier II General Education	3	
<b>7<sup>TH</sup> SEMESTER</b>		
ARCE 400A Capstone Design Studio	6	
ARCE 408A Issues in Professional Practice	2	
CE 335 Structural Design in Concrete	3	
ENGR 211P ENGR Economics	1	
ENGR 211I Dynamics	1	
Math/Science Elective	3	
<b>8<sup>TH</sup> SEMESTER</b>		
ARCE 400B Senior Design	3	
CE 438 Behavioral and Design structural Systems	3	
Technical Elective	3	
Technical Elective	3	
Tier II General Education	3	

\*Tier I and II General Education Courses must meet University general education requirements. One course must be recognized by the university as meeting the Diversity Requirement.