B.S. IN CIVIL ENGINEERING

CATALOG YEAR 2015-2016

Below is the *advised sequence* of courses for this degree program and prerequisites as of 4/30/15. 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
1ST SEMESTER		
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	
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 MATH 125
Tier I General Education	3	
2ND SEMESTER		
MATH 129 Calculus II	3	MATH 122B or 125 with C or better
MCB 181R/L Introductory Biology I **OR** GEOS 251 Physical Geology	4	
PHYS 141 Introductory Mechanics **OR** PHYS 161H	4	MATH 122B or MATH 125 Concurrent enrollment or completion of MATH 129
ENGL 102 **OR** 108 **OR** 109H First-Year Composition	3	ENGL 101, ENGL 107
Tier I General Education	3	
3RD SEMESTER		
CE 210 Engineering Graphics	3	
CE 214 Statics	3	PHYS 141, MATH 129
MATH 223 Vector Calculus	4	MATH 129 with C or better
PHYS 241 Introductory Electricity and Magnetism **OR** PHYS 261H **OR** CHEM152 General Chemistry II **OR** CHEM 105B/106B	4	For PHYS 241 or PHYS 261H: PHYS 141 or PHYS 161H, MATH 129. For CHEM 152 or CHEM 105B/106B: CHEM 151 or CHEM 105A/106A
Tier I General Education	3	
4TH SEMESTER		
CE 215 Mechanics of Solids	3	CE 214
CE 218 Mechanics of Fluids	3	CE 214
MATH 254 Intro to Ordinary Differential Equations	3	MATH 129 with C or better
CE 251 Elementary Surveying	3	
Tier I General Education	3	
AME 105 Introduction to MATLAB I	1	

COURSE NUMBER AND TITLE	UNITS	PREREQUISITES
CURRENT PREREQUISITES FOR UPPER DIVISION COURSES CAN BE FOUND IN THE UA GENERAL CATALOG		
ADVANCED STANDING IS REQUIRED FOR 3XX AND 4XX COURSES (SEE ADVISOR FOR REQUIREMENTS)		
5TH SEMESTER		
CE 301 Engineering Communications	3	
CE 303 Numerical Analysis for Civil Engineers	3	
CE 333 Elementary Structural Analysis	3	
CE 343 Soil Mechanics	3	
CE 363 Transport Engineering and Pavement Design	4	
6TH SEMESTER		
CE 323 Hydraulic Engineering and Design	4	
CE 334 Structural Design in Steel **OR** Technical Elective – See major advisor for course approval	3	
CE 370R Environmental and Water Engineering	3	
CE 370L Environmental and Water Engineering Lab	1	
CE Lab Elective – See major advisor for course approval	1	
CE 310 Probability and Statistics in Civil Engineering	3	
7TH SEMESTER		
CE 408A Issues in Civil Engineering Practice	3	
CE 335 Structural Design in Concrete **OR** Technical Elective – See major advisor for course approval	3	
CE Technical Elective – See major advisor for course approval	3	
CE Technical Elective – See major advisor for course approval	3	
Engineering Science Elective Modules (ENGR 211x)	2	
CE Lab Elective	1	
8TH SEMESTER		
CE 408B Civil Engineering Senior Capstone Design	3	
CE 440 Foundation Engineering	3	
CE Technical Elective – See major advisor for course approval	3	
CE Lab Elective – See major advisor for course approval	1	
Tier II General Education	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.