

# B.S. in Civil Engineering

## Four-Year Plan

### Catalog Year 2014-2015

Below is the *advised sequence* of courses for this degree program.

The official degree requirements can be found in the University General Catalog.

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	4	
ENGL 101 First-Year Composition	3	
ENGR 102 Introduction to Engineering or ENGR 102A and ENGR102B	3	Concurrent enrollment or completion of MATH 122B or MATH 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
MCB 181R,L Introductory Biology I or GEOS 251 Physical Geology	4	
PHYS 141 Introductory Mechanics	4	MATH 122B or MATH 125; Concurrent enrollment in MATH 129
ENGL 102 First-Year Composition	3	ENGL 101
Tier I General Education	3	
<b>3<sup>RD</sup> SEMESTER</b>		
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 CHEM152 General Chemistry II	4	For PHYS 241: PHYS 141. For CHEM 152: CHEM 151
Tier I General Education	3	
<b>4<sup>TH</sup> SEMESTER</b>		
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	
CE 260 Computer Programing	1	

Course Number and Title	Units	Prerequisites
<b>Advanced Standing is required for 3xx and 4xx courses (See advisor for requirements)</b>		
<b>5<sup>TH</sup> SEMESTER</b>		
CE 301 Engineering Communications	3	
CE 303 Numerical Analysis for Civil Engineers	3	ENGR 102; MATH 129
CE 333 Elementary Structural Analysis	3	CE 215
CE 343 Soil Mechanics	3	CE 215
CE 363 Transport Engineering and Pavement Design	4	CE 215
<b>6<sup>TH</sup> SEMESTER</b>		
CE 323 Hydraulic Engineering and Design	4	CE 218
CE 334 Structural Design in Steel or Technical Elective	3	For CE 334: CE 333
CE 370R Environmental and Water Engineering	3	
CE 370L Environmental and Water Engineering Lab	1	
CE Lab Elective	1	
CE 310 Probability and Statistics in Civil Engineering	3	MATH 129
<b>7<sup>TH</sup> SEMESTER</b>		
CE 408A Issues in Civil Engineering Practice	3	2 of the following: CE 323, CE 334 or 335, CE 343, CE 363, CE 370R,L
CE 335 Structural Design in Concrete or Technical Elective	3	CE 333
CE Technical Elective	3	
CE Technical Elective	3	
Engineering Science Elective Modules	2	
CE Lab Elective	1	
<b>8<sup>TH</sup> SEMESTER</b>		
CE 408B Civil Engineering Senior Capstone Design	3	CE 301; CE 408; 4 of the following: CE 323, CE 334 or 335; CE 343, CE 363, CE 370R,L
CE 440 Foundation Engineering	3	
CE Technical Elective	3	
CE Lab Elective	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.