2018-2019 SAMPLE PARADIGM for a B.S. in Civil Engineering

This sample paradigm shows a normal 4 year progression towards a degree in civil engineering. Some of the courses should be taken in this order due to prerequisite structures, others may be switched.

FRESHMAN YEAR - Semester I

CE 110	Intro to Civil Engineering	2 crs.
CE 111	Civil Engineering Graphics	3 crs.
ENG 111	English Composition I	3 crs.
Math 131	Calculus I	3 crs.
BIOL 107	Environmental Biology	3 crs.
CBU 101	Orientation to CBU	0 cr.
	General Education	3 crs.
	Total	*17 crs.*

FRESHMAN YEAR - Semester II

CE 113	Civil Engineering Analysis	2 crs.
ENG 112	English Composition II	3 crs.
MATH 132	Calculus II	3 crs.
PHYS 150 & 150L	Physics I & Lab	4 crs.
CHEM 115 & 115L	General Chemistry & Lab	4 crs.
	Total	*16 crs.*

SOPHOMORE YEAR - Semester I

CE 225 & 225L	Geomatics & Lab	4 crs.
CE 201	Statics	3 crs.
CE 210	Mechanics of Materials	3 crs.
MATH 231	Differential Equations	3 crs.
PHYS 251 & 251L	Physics 2 & Lab	4 crs.
	Total	*17 crs.*

SOPHOMORE YEAR - Semester II

CE 212	Structural Analysis	3 crs.
CE 251 & 251L	Construction Materials	4 crs.
CE 299 & 299L	Hydraulics & Lab	4 crs.
MATH 232	Calculus III	3 crs.
ME 202	Dynamics	3 crs.
	Total	*17 crs.*

JUNIOR YEAR - Semester I

CE 310	Design of Steel Structures	3 crs.
CE 313	Hydrology	3 crs.
CE 322 & 322L	Soil Mechanics & Lab	4 crs.
	General Education	3 crs.
	CE Major Elective	3 crs.
	Total	*16 crs.*

JUNIOR YEAR - Semester II

CE 311	Design of Reinforced Concrete	3 crs.
CE 329	Environmental Engineering I	2 crs.
CE 318	Highway Engineering	3 crs.
CE 331	Junior Project	1 cr.
CE 340	Design of Foundations	3 crs.
MATH 308	Statistics	3 crs.
	General Education	3 crs.
	Total	*18 crs.*

SENIOR YEAR - Semester I

CE 400	The Compleat Engineer	3 crs.
CE 429	Environmental Engineering II	2 crs.
CE 431	Senior Design Project I	2 crs.
CE	Major Elective	3 crs.
	General Education	3 crs.
	MATH Elective	3 crs.
CE 489	Fundamentals of CE Exam	0 cr.
	Total	*16 crs.*

SENIOR YEAR - Semester II

CE 314	Engineering Economy	3 crs.
CE 432	Senior Design Project II	2 crs.
	CE Major Elective	3 crs.
	General Education	3 crs.
	General Education	3 crs.
	Program Option	3 crs.
	Total	*17 crs.*

Total credits required for bachelor's degree completion: 134