

Department of Civil, Architectural and Environmental Engineering
Civil Engineering Program
Major Code: 185

NEW 120 Curriculum – Effective 2017

Freshman Fall	GEEN 100 Fundamentals Engineering ⁺⁺	CR 2
	GEEN 111 Colloquium Student Success	1
	MATH 131 Calculus I ⁺⁺	4
	CHEM 106 Chem VI ⁺⁺	3
	CHEM 116 Chem Lab	1
	ENGL 100 English Composition I	3
	CAEE 101 Graphics in CAEE	2

Semester Total 16

Freshman Spring	ENGL 101 English Composition II	CR 3
	Math 132 Calculus II ⁺⁺	4
	African American Elective	3
	PHYS 241 Physics I ⁺⁺	3
	PHYS 251 Physics I Lab	1
	CAEE 121 Colloquium	0

Semester Total 14

Sophomore Fall	MATH 231 Calculus III ⁺⁺	CR 4
	CAEE 231 Mechanics I - Statics ^{++ F&S}	3
	CAEE 230 Statics Lab ^{F&S}	1
	PHYS 242 Gen Physics II ⁺⁺	3
	PHYS 252 Gen Physics Lab	1
	CM 214 Surveying ^{F&S}	2
	CM 224 Surveying Lab ^{F&S}	1

Semester Total 15

Sophomore Spring	MATH 341 Differential Equations ^{++ F&S}	CR 3
	CIEN 281 Civil Engineering CAD	1
	CAEE 232 Solid Mechanics ^{++ F&S}	3
	CAEE 240 Numerical Mthds & Mat Lab ^{++ F&S}	3
	CAEE 362 Fluid Mechanics ^{++ F&S}	3
	Global Studies Elective	3

Semester Total 16

Junior Fall	CAEE 363 Eng Fluid Mech & Hydraulics Lab	CR 1
	CAEE 325 Structural Analysis	3
	CAEE 330 Const. Materials & Methods	3
	CAEE 335 Construction Material Lab	1
	CIEN 350 Transportation Engineering	3
	CAEE 334 Eng Mech II Dynamics ⁺⁺	2
	CAEE 400 FE Topics Review	1

Semester Total 14

Junior Spring	CIEN 320 Geotechnical I	CR 3
	CIEN 321 Geotech. Eng. Lab	1
	CAEE 304 Engineering Statistics ⁺⁺	3
	CAEE 364 Eng. Hydrology	3
	CAEE 430 Structural Design in Steel	3
	CIEN 310 Environmental Engineering	3
	CIEN 311 Env. Eng. Lab	1

Semester Total 17

Senior Fall	CIEN 483 CE System Design I	CR 1
	CAEE 436 Reinforced Concrete Design	3
	CAEE 481 Construction Projects	3
	CIEN 412 Environmental Engineering Design	3
	Humanities Elective	3
	CIEN 422 Geotechnical Engineering II	3

Semester Total 16

Senior Spring	CIEN 484 CE Sys Design II (Capstone)	CR 2
	Social Science Elective	3
	Science Elective (Preferred BIOL 100 or ENV5 209)	3
	CIEN 453 Transportation Eng. Design	3
	CIEN 405 FE review	1
	Optional: CAEE Elective	

Semester Total 12

Program Total 120

* General Education: one Social Science (3 cr), one Humanities/Fine Arts (3 cr), one Global Awareness (3 cr), and one Knowledge of African-American Culture and History (3 cr). ⁺⁺ Denotes course where student must receive a C or better

^{F&S} – Engineering course offered, Fall and Spring semesters

Science Elective: ENV5 209 Physical Geology(Spring), BIOL 100 General Biology (Fall and Spring); or General Science Electives

CIEN & CAEE Electives Offered in the Department: CAEE 450 Project Management, CIEN 460 Water Resources, CAEE 482 Construction Engineering (on Demand)