

Department of Civil, Architectural and Environmental Engineering
Architectural Engineering Program
Major Code: 011

NEW 120 Curriculum – Effective 2017

Freshman Fall	GEEN 100 Fundamentals Engineering ⁺⁺	CR 2	Freshman Spring	ENGL 101 English Composition II	CR 3
	GEEN 111 Colloquium Student Success	1		Math 132 Calculus II ⁺⁺	4
	MATH 131 Calculus I ⁺⁺	4		African American Elective	3
	CHEM 106 Chem VI ⁺⁺	3		PHYS 241 Physics I ⁺⁺	3
	CHEM 116 Chem Lab	1		PHYS 251 Physics I Lab	1
	ENGL 100 English Composition I	3		CAEE 121 Colloquium	0
	CAEE 101 Graphics in CAEE	2			
Semester Total			Semester Total		
16			14		
Sophomore Fall	MATH 231 Calculus III ⁺⁺	CR 4	Sophomore Spring	MATH 341 Differential Equations ^{++ F&S}	CR 3
	CAEE 231 Mechanics I - Statics ^{++ F&S}	3		MEEN 241 Thermodynamics ^{++ F&S}	3
	CAEE 230 Statics Lab ^{F&S}	1		AREN 281 BIM & Intro to Bldg Systems	2
	PHYS 242 Gen Physics II ⁺⁺	3		ECEN 340 Electrical Circuits ^{++ F&S}	3
	PHYS 252 Gen Physics Lab	1		CAEE 232 Solid Mechanics ^{++ F&S}	3
	AREN Sophomore Elective – see options below	3		CAEE 240 Numerical Mthds&Mat Lab ^{++ F&S}	3
Semester Total			Semester Total		
15			17		
Junior Fall	CAEE 362 Engin Fluids and Hydraulics ^{++ F&S}	CR 3	Junior Spring	AREN 387 Integrated Building Design	CR 3
	CAEE 363 Eng Fluid Mech & Hydraulics Lab	1		CAEE 304 Engineering Statistics ⁺⁺	3
	AREN 382 Architectural Design	3		CAEE 325 Structural Analysis ^{F&S}	3
	CAEE 330 Const. Materials & Methods	3		AREN 364 HVAC Principles and Systems	2
	CAEE 335 Construction Material Lab	1		AREN 363 HVAC Principles and Sys./Lab	1
	AREN 348 Fundamentals of Illumination/Power	3		Social Science Elective	3
	AREN 344 Lighting and Power Lab	1		CAEE 401 FE Review (0 cr) OR	
	AREN 343 Heat Transfer and Applied Thermo	2		CAEE 400 FE Topics Review (1 cr)	0
Semester Total			Semester Total		
17			15		
Senior Fall	AREN 480 Senior Project – Design Development	CR 2	Senior Spring	AREN 483 Senior Capstone Design	CR 2
	CAEE 430 Structural Design in Steel ^{F&S}	3		CAEE 334 Eng Mech II Dynamics ^{++ F&S}	2
	AREN Engineering Design Elective ^{F&S}	3		AREN 467 Electrical Syst & Smart Bldgs	2
	AREN 462 HVAC & Hydronic System Design	3		CAEE 450 Construction Project Management	3
	Global Studies Elective	3		Humanities Elective	3
Semester Total			Semester Total		
14			12		
			Program Total 120		

* General Education courses are required for a total of 12 credits: 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). Courses must be selected from the approved general education list of courses.

⁺⁺ Denotes course where student must receive a C or better

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

AREN Sophomore Electives: AREN 112 Architectural History (Fall) OR (CM 214 Surveying with CM 224 Surveying Lab)

AREN Engineering Design Electives: CAEE 436 Reinforced Concrete (Fall), CAEE 481 Construction Projects (Fall and Spring), CAEE 482 Construction Engineering (on Demand)