Curriculum - Civil Engineering (Sustainable Engineering), BSE

Catalog Year: 2026 - 2027 **General Studies Gold**

Degree: Bachelor of Science in Engineering, BSE

College/School: Ira A. Fulton Schools of Engineering

Plan Code: ESCEESUBSE

Minimum credit hours: 120

Upper division minimum credit hours: 46

Requirement	Minimum Grade	Credit Hours
Civil Engineering Core		
CEE 210 Engineering Mechanics I: Statics	C	3
CEE 212 Engineering Mechanics II: Dynamics	C	3
CEE 213 Introduction to Deformable Solids	C	3
CEE 241 Introduction to Thermodynamics for Civil Engineering		3
CEE 290 Probability and Statistics for Environmental and Civil Data (QTRS)		3
CEE 300 Engineering Business Practice		3
CEE 321 Structural Analysis and Design		3
CEE 341 Fluid Mechanics for Civil and Environmental Engineers		3
CEE 351 Geotechnical Engineering		3
CEE 353 Civil Engineering Materials		3
CEE 361 Introduction to Environmental Engineering		3
CEE 372 Transportation Engineering		3

Requirement	Minimum Grade	Credit Hours
CEE 384 Numerical Methods for Engineers (QTRS)		3
CEE 400 Earth Systems Engineering and Management		3
CEE 487 Integrated Civil, Construction and Environmental Engineering Design I		2
CEE 488 Integrated Civil, Construction and Environmental Engineering Design II		2
FSE 100 Introduction to Engineering	C	2
Civil Engineering (Sustainable Engineering) Concentration		
CEE 485 Sustainable Civil and Environmental Systems Engineering		3
SOS 300 Advanced Concepts and Integrated Approaches in Sustainability		3
Upper Division Design Elective CEE 412 Pavement Analysis and Design CEE 420 Steel Structures CEE 421 Concrete Structures CEE 441 Water Resources Engineering CEE 452 Foundations CEE 462 Unit Operations in Environmental Engineering CEE 466 Urban Water System Design CEE 475 Highway Geometric Design		6
Upper Division Technical Elective BIO 320 Fundamentals of Ecology CEE 412 Pavement Analysis and Design		3

Requirement	Minimum Grade	Credit Hours
CEE 420 Steel Structures		
CEE 421 Concrete Structures		
CEE 440 Hydrology		
CEE 441 Water Resources Engineering		
CEE 452 Foundations		
CEE 466 Urban Water System Design		
CEE 474 Transportation Systems Planning		
CEE 475 Highway Geometric Design		
CEE 481 Civil Engineering Project Management		
CEE 483 Highway Materials, Construction, and Quality		
CEE 493 Honors Thesis		
CHM 302 Environmental Chemistry		
CHM 341 Elementary Physical Chemistry		
COM 453 Communication Training and Development		
CON 448 Sustainable Construction (SUST)		
PUP 301 Introduction to Urban Planning		
PUP 442 Environmental Planning		
PUP 485 International Field Studies		

Civil Engineering (Sustainable Engineering) Major GPA

Check: Minimum 2.0 Major GPA

Math, Science, and Interdisciplinary Requirements

BIO 181 General Biology I (SCIT) OR BIO 182 General Biology II (SCIT) OR CHM 231 Elementary Organic Chemistry (SCIT) OR GLG 101 Introduction to Geology I (Physical) (SCIT)		3
CEE 181 Technological, Social, and Sustainable Systems (SUST)		3
CHM 114 General Chemistry for Engineers (SCIT)	C	4
ECN 211 Macroeconomic Principles (SOBE) OR ECN 212 Microeconomic Principles (SOBE)		3
MAT 242 Elementary Linear Algebra		2
MAT 265 Calculus for Engineers I (MATH)	C	3
MAT 266 Calculus for Engineers II (MATH)	C	3
MAT 267 Calculus for Engineers III (MATH)	C	3
MAT 275 Modern Differential Equations (MATH)	C	3
PHY 121 University Physics I: Mechanics (SCIT)	C	3
PHY 122 University Physics Laboratory I (SCIT)	C	1
PHY 131 University Physics II: Electricity and Magnetism (SCIT)	C	3
PHY 132 University Physics Laboratory II (SCIT)	C	1

ASU 101 or College-Specific First-Year Seminar

ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students.

ASU 101-CEE The ASU Experience		1

First-Year Composition

ENG 101 First-Year Composition AND ENG 102 First-Year Composition OR ENG 105 Advanced First-Year Composition	C	6

OR ENG 107 First-Year Composition AND ENG 108 First-Year Composition

Notes

All baccalaureate degree students must fulfill university graduation requirements, including a minimum of 120 credit hours, with at least 45 credit hours in upper-division courses.

All undergraduate students must complete General Studies requirements.

Mathematics Placement Assessment score determines placement in first mathematics course.

Students should work with their academic advisor, and consider course prerequisites, in order to complete all degree requirements in four years.

General Studies designations listed next to courses were valid for the 2026 - 2027 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.