






















2023 - 2024 Major Map

Environmental Engineering, BSE



School/College: Ira A. Fulton Schools of Engineering
ESEVBSE

Term 1 0 - 16 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 FSE 100: Introduction to Engineering	2	C	<ul style="list-style-type: none"> ASU 101 is required of all first-year students; FSE 394 is required for all new transfer students. Prep for success using the First-Year Student Guide. Join a Fulton community. Explore engineering and technical professions.
 MAT 265: Calculus for Engineers I (MA)	3	C	
ASU 101-EVE: The ASU Experience	1		
CHM 113: General Chemistry I (SQ)	4		
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
Social-Behavioral Sciences (SB) AND Global Awareness (G)	3		
 Minimum 2.00 GPA ASU Cumulative.			
Term hours subtotal:		16	
Term 2 16 - 31 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 242: Elementary Linear Algebra	2	C	<ul style="list-style-type: none"> Create a Handshake profile. Get involved with EPICS, the Generator Labs, and the Fulton Start-Up Center.
 MAT 266: Calculus for Engineers II (MA)	3	C	
CEE 181: Technological, Social, and Sustainable Systems (HU)	3		
CHM 116: General Chemistry II (SQ)	4		
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
 Minimum 2.00 GPA ASU Cumulative.			
Term hours subtotal:		15	
Term 3 31 - 47 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 267: Calculus for Engineers III (MA)	3	C	<ul style="list-style-type: none"> Prep for success using the Sophomore Guide.
 PHY 121: University Physics I: Mechanics (SQ)	3	C	
 PHY 122: University Physics Laboratory I (SQ)	1	C	
EVE 261: Introduction to Environmental Processes	3	C	

EVE 290: Statistics and Probability for Environmental Data	3		
Humanities, Arts and Design (HU)	3		
 Minimum 2.00 GPA ASU Cumulative.			
Complete Mathematics (MA) requirement.			
Term hours subtotal:	16		
Term 4 47 - 62 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 275: Modern Differential Equations (MA)	3	C	<ul style="list-style-type: none"> Pursue an undergraduate research experience. Apply for internships. Attend career fairs and events.
CHE 211: Introduction to Chemical Processing	3	C	
EVE 214: Environmental Engineering Mechanics	3	C	
EVE 302: Environmental Engineering Fundamentals: Physical and Chemical Processes	3		
GLG 101: Introduction to Geology I (Physical) (SQ) OR GLG 108: Water Planet (SQ) OR GLG 110: Dangerous World (SQ & G)	3-4		
Term hours subtotal:	15-16		
Term 5 62 - 77 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 EVE 303: Environmental Engineering Fundamentals: Microbiological Processes	3		<ul style="list-style-type: none"> Plan for success using the Junior Guide. Network at student organization competitions or professional societies.
CEE 300: Engineering Business Practice (L)	3		
CEE 384: Numerical Methods for Engineers (CS)	3		
EVE 304: Environmental Engineering Processes Lab	2		
EVE 314: Data Science for Environmental and Civil Engineers	3		
Environmental Elective	1		
Term hours subtotal:	15		
Term 6 77 - 91 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 CEE 341: Fluid Mechanics for Civil Engineers	4		<ul style="list-style-type: none"> Research and prepare for graduate school. Apply for a Fulton Schools 4+1 program. Develop a professional profile online.
EVE 354: Materials in the Environment	4		
EVE 452: Environmental Investigation and Remediation Design	3		
EVE 461: Unit Operations in Drinking Water Treatment	3		
 Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).			

Term hours subtotal: 14

Summer 6 91 - 92 Credit Hours	Hours	Minimum Grade	Notes
EVE 484: Internship	1	C	
Term hours subtotal: 1			

Term 7 92 - 107 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 CEE 467: Environmental Microbiology	3		<ul style="list-style-type: none">• Plan for success using the Senior Guide.• Use Handshake to apply for full-time positions.• Complete an in person or virtual practice interview.
CEE 400: Earth Systems Engineering and Management ((L or HU) & H)	3		
CEE 440: Hydrology	3		
EVE 465: Unit Operations in Wastewater Treatment	3		
Environmental Elective	3		
Term hours subtotal:	15		

Term 8 107 - 120 Credit Hours Necessary course signified by ⭐	Hours	Minimum Grade	Notes
⭐ CEE 486: Integrated Civil Engineering Design (L)	4		
CEE 441: Water Resources Engineering	3		
Environmental Elective	3		
Social-Behavioral Sciences (SB) AND Cultural Diversity in the U.S. (C)	3		
Term hours subtotal:	13		

Hide Course List(s)/Track Group(s)

Environmental Electives
ASB 326: Human Impacts on Ancient Environments (SB & H)
ASB 370: Ethics of Eating (L or SB)
BIO 324: Environmental Ethics (HU)
CEE 351: Geotechnical Engineering
CEE 372: Transportation Engineering
CEE 466: Urban Water System Design
CEE 470: Sustainable Environmental Biotechnologies

CEE 485: Sustainable Civil and
Environmental Systems Engineering

CHE 469: Air Quality Engineering

CHM 231: Elementary Organic Chemistry
(SQ)

CHM 233: General Organic Chemistry I

CHM 240: Mathematical Methods in
Chemistry (CS)

CHM 302: Environmental Chemistry

CHM 325: Analytical Chemistry

CHM 327: Instrumental Analysis

ENG 334: The American Southwest in
Literature and Film ((L or HU) & C)

ENG 363: Transborder Mexican and
Chicano/a Literature of Southwest North
America ((L or HU) & C)

ENG 367: Water, Dams and Culture (L or
HU)

ENG 371: Rhetoric of the Environmental
Movement

ENG 378: Environmental Creative
Nonfiction (L or HU)

ENG 468: Environmental Literary
Criticism (L or HU)

EVE 492: Honors Directed Study

EVE 493: Honors Thesis (L)

EVE 494: Special Topics

EVE 498: Pro-Seminar

EVE 499: Individualized Instruction

FSE 301: Entrepreneurship and Value
Creation

HST 342: U.S. West 20th Century (SB & H)

HST 345: Environmental History (L)

JUS 332: Politics of Energy Policy and
Justice

JUS 444: Environment and Justice (L & C)

Notes:

- First-Year Composition: All students are placed in ENG 101 unless submission of SAT, ACT, Accuplacer, IELTS, or TOEFL score, or college-level transfer credit or test credit equivalent to ASU's first-year composition course(s), determine otherwise. Students on Polytechnic, Downtown Phoenix and West Campuses are encouraged to complete the Directed Self-Placement survey to choose the first-year composition option they believe best suits their needs. Visit: <https://cisa.asu.edu/DSP>
- Mathematics Placement Assessment score determines placement in first mathematics course.

Total Hours: 120

Upper Division Hours: 45 minimum

Major GPA: 2.00 minimum

Cumulative GPA: 2.00 minimum

Total hrs at ASU: 30 minimum

Hrs Resident Credit for

Academic Recognition: 56 minimum

Total Community College Hrs: 64 maximum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed next to courses on the major map were valid for the 2023 - 2024 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.