














# 2020 - 2021 Major Map

## Environmental Engineering, BSE

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

Term 1 0 - 16 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 FSE 100: Introduction to Engineering	2	C	<ul style="list-style-type: none"> <li>ASU 101 is required of all first-year students; FSE 394 is required for all new transfer students.</li> <li>An SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into first-year composition courses</li> <li>Mathematics Placement Assessment score determines placement in mathematics course</li> <li>Prep for success using the <a href="#">First-Year Student Guide</a>.</li> <li>Join a <a href="#">Fulton community</a>.</li> <li>Explore <a href="#">engineering and technical professions</a>.</li> </ul>
 MAT 265: Calculus for Engineers I (MA)	3	C	
ASU 101-CEE: 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	
Humanities, Arts and Design (HU) AND Global Awareness (G)	3		
 Minimum 2.00 GPA ASU Cumulative.			
Term hours subtotal:		16	
Term 2 16 - 31 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 MAT 242: Elementary Linear Algebra	2	C	<ul style="list-style-type: none"> <li>Create a <a href="#">Handshake</a> profile.</li> <li>Get involved with EPICS, the Generator Labs, and the <a href="#">Fulton Start-Up Center</a>.</li> </ul>
 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 <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 MAT 275: Modern Differential Equations (MA)	3	C	<ul style="list-style-type: none"> <li>Prep for success using the <a href="#">Sophomore Guide</a>.</li> </ul>
 PHY 121: University Physics I: Mechanics (SQ)	3	C	
 PHY 122: University Physics Laboratory I (SQ)	1	C	
ECN 211: Macroeconomic Principles (SB) OR	3		

ECN 212: Microeconomic Principles (SB)

EVE 261: Introduction to Environmental Processes

3

C

Social-Behavioral Sciences (SB) AND Cultural Diversity in the U.S. (C)

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 267: Calculus for Engineers III (MA)

3

C

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: Biological Processes

3

CEE 213: Introduction to Deformable Solids

3

C

CEE 300: Engineering Business Practice (L)

3

CEE 384: Numerical Methods for Engineers (CS)

3

IEE 380: Probability and Statistics for Engineering Problem Solving (CS)

3

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

CEE 353: Civil Engineering Materials

4

EVE 304: Environmental Engineering Processes Lab

2

EVE 452: Fundamentals of Geoenvironmental Engineering

3

Technical Elective

1

- Pursue an undergraduate research experience.
- Apply for internships.
- Attend career fairs and events.

- Plan for success using the Junior Guide.
- Network at student organization competitions or professional societies.

- Research and prepare for graduate school.
- Apply for a Fulton Schools 4+1 program.
- Develop a professional profile online.



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
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EVE 484: Internship	1	C
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Term hours subtotal: 1

Term 7 92 - 107 Credit Hours <b>Necessary course signified by</b>	Hours	Minimum Grade	Notes
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CEE 467: Environmental Microbiology	3
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CEE 400: Earth Systems Engineering and Management ((L or HU) & H)	3
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CEE 440: Hydrology	3
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CEE 462: Unit Operations in Environmental Engineering	3
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Technical Elective	3
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Term hours subtotal: 15

- Plan for success using the [Senior Guide](#).
- Use [Handshake](#) to apply for full-time positions.
- Complete an in person or virtual [practice interview](#).

Term 8 107 - 120 Credit Hours <b>Necessary course signified by</b>	Hours	Minimum Grade	Notes
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CEE 486: Integrated Civil Engineering Design (L)	4
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CEE 441: Water Resources Engineering	3
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ERM 401: Hazardous Waste Management	3
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Technical Elective	3
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Term hours subtotal: 13

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

Technical Elective
CEE 281: Surveying
CEE 351: Geotechnical Engineering
CEE 372: Transportation Engineering
CEE 466: Urban Water System Design
CEE 470: Sustainable Environmental Biotechnologies
CEE 481: Civil Engineering Project Management

CEE 485: Sustainable Civil and  
Environmental Systems Engineering

CEE 493: Honors Thesis (L)

CEE 499: Individualized Instruction

CHE 469: Air Quality Engineering

CHM 231: Elementary Organic Chemistry  
(SQ)

EVE 484: Internship

EVE 494: Special Topics

EVE 498: Pro-Seminar

EVE 499: Individualized Instruction

PUP 301: Introduction to Urban Planning  
(L)

PUP 442: Environmental Planning

PUP 465: Sustainable Urbanism

**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 2020 - 2021 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.