

**Tufts University – School of Engineering**  
**Class of 2024**  
**Bachelor of Science in Environmental Engineering (BSEvE)**  
**Major Requirement**  
*School of Engineering Requirements shown in italics*  
*\* Courses that require a letter grade (i.e., no pass/fail)*

The BSEvE comprises credit requirements and course requirements as established by the School of Engineering and Department of Civil & Environmental Engineering. Students must satisfy the SOE and ABET-EAC requirements listed in the Credit Requirements box, as well as fulfill all course requirements. SHU values listed for each course requirement reflect those associated with the corresponding Tufts course. Unless otherwise noted, course requirements may be satisfied with transfer courses having SHU values that are different than those shown here. In all cases, students should enter the SHUs received or earned in the correct SOE-Attribute column for a given course requirement to ensure they meet the credit requirements. For planning purposes, students completing the BSEvE requirements with Tufts courses will earn at least 122 SHU.

Mathematics & Natural Sciences*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
MATH 32 Calculus I	3							
MATH 34 Calculus II	3							
MATH 42 Calculus III	4							
MATH 51 Differential Equations	4							
CHEM 1 Chem. Fund. w/ lab	5							
CHEM 2 Chem. Principles w/ lab	5							
PHY 11 Gen. Physics I w/ lab	5							
EOS 2 Environ. Geology w/ lab	4							
BIO 13 Cells & Organisms w/ lab	5							
<b>subtotal</b>	<b>38</b>	-	-	-	-	-	-	

Stewardship*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
CEE 32 Eng. Sustain. & Resil. Soc.	3							
CEE 52 Public Health Engineering	3							
<b>subtotal</b>	<b>6</b>	-	-	-	-	-	-	

Communication*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
ENG 1 Expos. Writing or ENG 3	3							
EM 51 Engineering Management	3							
EM 52 Tech. & Mang. Commun.	3							
CEE 187 GIS or ES 18 CAD	3-4							
<b>subtotal</b>	<b>12-13</b>	-	-	-	-	-	-	

HASS	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
Humanities Elective (a)	≥3							
Social Science Elective (b)	≥3							
≥24 SHU of SOE-HASS are required for the degree. List below HASS courses that are not in the Communication or Technical Elective sections (see note c).								
<b>subtotal</b>	<b>≥6</b>	-	-	-	-	-	-	

Credit Requirements	SOE Attribute						Total
	E	C	M	NS	HASS	None	
SOE Requirements	≥30		≥30		≥24	-	≥120
ABET-EAC Program Requirements	≥45		≥30		-	-	-
<b>Student Totals</b>							

Processes*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
ES 7 Thermodynamics	3							
ES 8 Fluid Mechanics	3							
CEE 12 Hydraulics	4							
CEE 34 Environ. Chem.	4							
CEE 36 Environ. Processes	4							
<b>subtotal</b>	<b>18</b>	-	-	-	-	-	-	

Analysis*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
COMP 11 Intro. Comp. Sci.	4							
ES 55 Numerical Methods	3							
ES 56 Prob. & Stats.	4							
CEE 80 Integ. Plan. & Mgt.	3							
Analysis Elective (d)	3							
<b>subtotal</b>	<b>17</b>	-	-	-	-	-	-	

Design*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
EN 1 Applications in Eng.	3							
Design Elective (e)	3							
Design Elective (e)	3							
CEE 81 Capstone	4							
<b>subtotal</b>	<b>13</b>	-	-	-	-	-	-	

Technical Elective*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
≥12 SHU Technical Electives (f) are required for the degree. List courses below.								
<b>subtotal</b>	<b>≥12</b>							

**Abbreviations:**  
SHU = Semester Hour Unit  
SOE = School of Engineering  
ABET-EAC = Engineering Accreditation Commission of ABET  
C = Courses having attribute SOE-Computing  
E = Courses having attribute SOE-Engineering  
M = Courses having attribute SOE-Mathematics  
NS = Courses having attribute SOE-Natural Sciences  
HASS = Course having attribute SOE-HASS (Humanities, Arts, and Social Sciences)  
None = Course without SOE attribute

**Student and Advisor Notes:**

## BSEvE Notes

(a) Humanities Elective

At least 3 SHU of Humanities are required. Requirement may not be satisfied with pre-matriculation credits, ENG 1, or ENG 3.

Select From:

Any course having attribute SOE-HASS-Humanities

(b) Social Sciences Elective

At least 3 SHU of Social Sciences are required. Requirement may not be satisfied with pre-matriculation credits.

Select From:

Any course having attribute SOE-HASS-Social Sciences

(c) Humanities, Arts or Social Sciences Electives

Select From:

Any course having attribute SOE-HASS

Any course having attribute SOE-HASS-Humanities

Any course having attribute SOE-HASS-Arts

Any course having attribute SOE-HASS-Social Sciences

(d) Analysis Elective

Select from:

CEE 151, CEE 152, UEP 236, UEP238

(e) Design Elective

Select From:

Public Health: CEE 133, CEE 159

Environmental Quality: CEE 136, CEE 143

Hydrology & Hydraulics: CEE 111, CEE 112

(f) Technical Elective

Courses selected may not be used to fulfill any other course requirement, Analysis Elective, or Design Elective. Select from:

Any course having attribute SOE-Engineering

Any course having attribute SOE-Computing

Any course having attribute SOE-Mathematics

Any course having attribute SOE-Natural Sciences

Any of the following additionally approved courses:

Anthropology: ANTH 24

Community Health: CH 30, CH 54, CH 56, CH 106, CH 108

Economics: EC 5, EC 8, EC 30, EC 130, EC 132

Engineering Management: EM 54, EM 153, EM 155

Environmental Studies: ENV 100, ENV 135

Political Science: PS 194

Urban Planning: UEP 11, UEP 94, UEP 101, UEP 105, UEP 130, UEP 178, UEP 236, UEP 237, UEP 238

## BSEvE Course Selection Guidance

### Fall Semester, First Year

Course	SHU	SOE Attribute
<i>EN 1 Introduction to Engineering</i>	3	Engineering
MATH 32 Calculus I	3	Mathematics
CHEM 1 Chemical Fundamentals with laboratory	5	Natural Sciences
<i>ENG 1 Expository Writing</i>	3	HASS

**Semester Total SHU 14**

### Spring Semester, First Year

Course	SHU	SOE Attribute
<i>COMP 11 Introduction to Computer Science</i>	4	Computing
MATH 34 Calculus II	3	Mathematics
CHEM 2 Chemical Principles with laboratory	5	Natural Sciences
PHY 11 General Physics I with laboratory	5	Natural Sciences

**Semester Total SHU 17**

### Fall Semester, Second Year

Course	SHU	SOE Attribute
CEE 32 Engineering for a Sustainable & Resilient Society	3	Engineering
EM 52 Technical and Managerial Communication	3	HASS
MATH 42 Calculus III	4	Mathematics
BIO 13 Cells & Organisms with laboratory	5	Natural Sciences
<i>HASS or Technical Elective</i>	3-5	varies with selection

**Semester Total SHU 18-20**

### Spring Semester, Second Year

Course	SHU	SOE Attribute
CEE 52 Public Health Engineering	3	Engineering
ES 56 Probability & Statistics or CEE 156 Biostatistics	4	Mathematics
ES 7 Thermodynamics	3	Engineering
MATH 51 Differential Equations	4	Mathematics
EOS 2 Environmental Geology with laboratory	4	Natural Sciences

**Semester Total SHU 18**

### Fall Semester, Third Year

Course	SHU	SOE Attribute
CEE 34 Environmental Chemistry	4	Engineering
ES 8 Fluid Mechanics	3	Engineering
ES 55 Numerical Methods	3	Mathematics
CEE 187 GIS or ES 18 CAD	3-4	Engineering
<i>HASS or Technical Elective</i>	3-5	varies with selection

**Semester Total SHU 16-19**

### Spring Semester, Third Year

Course	SHU	SOE Attribute
CEE 12 Hydraulics	4	Engineering
CEE 36 Environmental Processes	4	Engineering
CEE 80 Integrated Planning & Management of Civil Systems	3	Engineering
EM 51 Engineering Management	3	Engineering
<i>HASS or Technical Elective</i>	3-5	varies with selection

**Semester Total SHU 17-19**

### Fall Semester, Fourth Year

Course	SHU	SOE Attribute
Analysis Elective	3	Engineering
Design Elective	3	Engineering
<i>HASS or Technical Elective</i>	9-15	varies with selection

**Semester Total SHU 15-21**

### Spring Semester, Fourth Year

Course	SHU	SOE Attribute
CEE 81 Capstone	4	Engineering
Design Elective	3	Engineering
<i>HASS or Technical Elective</i>	9-14	varies with selection

**Semester Total SHU 16-21**