

Tufts University – School of Engineering

Class of 2024

Bachelor of Science in Engineering – Program in Architectural Studies (BSE-Arch)

Major Requirement

School of Engineering Requirements shown in italics

* Courses that require a letter grade (i.e., no pass/fail)

The BSE-Arch comprises credit requirements and course requirements as established by the School of Engineering and Department of Civil & Environmental Engineering, in collaboration with the Department of History of Art & Architecture. Students must satisfy the SOE 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 BSE-Arch requirements with Tufts courses will earn at least 123 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							
ES 56 Probability & Statistics	4							
PHY 11 Gen. Physics I w/ lab	5							
<i>≥30 SHU of SOE-Mathematics + SOE-Natural Sciences are required for the degree. List additional courses below (see note a).</i>								
subtotal	≥30	-	-			-	-	

Civil Engineering*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
<i>EN 1 Applications in Eng.</i>	3							
<i>ES 2 Intro. Comp. in Eng. or COMP 11 Intro. Comp. Sci.</i>	4							
ES 5 Statics & Dynamics	3							
ES 9 Strength of Materials	4							
CEE 22 Structural Analysis	4							
CEE 42 Intro. Geotech. Eng.	4							
CEE Design Elective (f)	3							
CEE Design Elective (f)	3							
CEE 81 Capstone	4							
subtotal	32			-	-	-	-	

Communication*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
<i>ENG 1* Expos. Writing or ENG 3</i>	3							
Visual Thinking Elective (b)	2-4							
ES 18 CAD	4							
CEE 187 GIS or CEE 188 BIM	3							
subtotal	12-14	-	-	-	-	-	-	

Art & Architecture*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
FAH 8 Intro. to Architecture	3							
FAH 96 Design: Arch.	5							
FAH 97 Design: Adv. Arch	5							
FAH 98 Integ. Proj. Sem.	3							
<i>List ≥15 SHU Art & Architecture electives are required for the degree. List courses below (see note g).</i>								
subtotal	≥31	-	-	-	-			

Program Electives	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
<i>Humanities Elective (c)</i>	≥3							
<i>Social Science Elective (d)</i>	≥3							
<i>List ≥12 SHU Program Electives below (e)</i>								
subtotal	≥18	-	-	-	-	-	-	

Credit Requirements	SOE Attribute						Total
	E	C	M	NS	HASS	None	
<i>SOE Requirements</i>	≥30		≥30		≥24	-	≥120
Student Totals							

Abbreviations:

- SHU = Semester Hour Unit
- SOE = School of Engineering
- 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:

BSE-Arch Notes

(a) Mathematics or Natural Sciences Electives

Select from:

- Any course having attribute SOE-Mathematics
- Any course having attribute SOE-Natural Sciences

(b) Visual Thinking Elective

Select From:

DRWM 26, DRWM 63, GRAM 20, GRAM 21, GRAM 39, TPS 63

(c) 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

(d) 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

(e) Program Electives

Courses selected may not be used to fulfill any other course requirement, Mathematics & Natural Sciences Electives, Art & Architecture Electives, or Design Electives.

Select from:

Any course having attribute SOE-Mathematics

Any course having attribute SOE-Natural Sciences

Any of the following additionally approved courses:

Art History: FAH 19, FAH 21/121, FAH 28/128, FAH 34/134, FAH 127

Architecture: FAH 15/115, FAH 25/125, FAH 92/192, FAH 95/195, FAH 97, FAH 120, FAH 123, FAH 193, FAH 196, FAH 198

Anthropology: ANTH 20, ANTH 186

Civil & Environmental Engineering: CEE 12, CEE 24, CEE 25, CEE 32, CEE 80, CEE 106, CEE 111, CEE 127, CEE 146, CEE 149

Economics: EC5, EC 8, EC 30, EC 127

Engineering Management: EM 51, EM 52, EM 54, EM 153

Engineering Psychology: ENP 61

Engineering Science: ES 7, ES 8, ES 55

Political Science: PS 15, PS 195

Sociology: SOC 113, SOC 180

Studio Art: DRWM 26, DRWM 63, GRAM 20, GRAM 21, GRAM 39, SCPM 77, TPS 63, TPS 70, TPS 72, TPS 162

Urban & Environmental Planning: UEP 11, UEP 94, UEP 101, UEP 105, UEP 113, UEP 130, UEP 178, UEP 236, UEP 237, UEP 238

(f) CEE Design Electives

selected from:

CEE 24, CEE 25, CEE 32, CEE 146

(g) Art & Architecture Elective:

At least 15 SHU of coursework comprising at least one course in each of the three areas – Art History, Architecture, and Studio Art

Select From:

Art History: FAH 19, FAH 21/121, FAH 28/128, FAH 34/134, FAH 127

Architecture: FAH 15/115, FAH 25/125, FAH 92/192, FAH 95/195, FAH 120, FAH 123, FAH 193, FAH 196

Studio Art: DRWM 26, DRWM 63, GRAM 20, GRAM 21, GRAM 39, SCPM 77, DR 20, DR 125

BSE-Arch 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
PHY 11 General Physics I 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
FAH 8 Intro. Architecture	3	HASS
<i>ES 2 Intro. Comp. in Eng. or COMP 11 Introduction to Computer Science</i>	4	Computing
MATH 34 Calculus II	3	Mathematics
CHEM 1 Chemical Fundamentals with laboratory	5	Natural Sciences
Semester Total SHU		15

Fall Semester, Second Year

Course	SHU	SOE Attribute
ES 5 Statics & Dynamics	3	Engineering
ES 18 CAD	4	Engineering
Architecture course with number <100 (g)	3	HASS
MATH 42 Calculus III	3	Mathematics
Mathematics or Natural Sciences Elective	3-5	varies with selection
Semester Total SHU		16-18

Spring Semester, Second Year

Course	SHU	SOE Attribute
ES 9 Strength of Materials	4	Engineering
Visual Thinking Elective	2-4	HASS
MATH 51 Differential Equations	3	Mathematics
Mathematics or Natural Sciences Elective	3-5	varies with selection
<i>HASS or Technical Elective</i>	3-5	varies with selection
Semester Total SHU		15-21

Fall Semester, Third Year

Course	SHU	SOE Attribute
CEE 22 Structural Analysis	4	Engineering
FAH 96 Design: Architecture	5	HASS
Art & Architecture Elective	3-5	HASS
CEE 187 GIS or CEE 188 BIM	3	Engineering
<i>HASS or Technical Elective</i>	3-5	varies with selections
Semester Total SHU		17-21

Spring Semester, Third Year

Course	SHU	SOE Attribute
CEE 42 Introduction to Geotechnical Engineering	4	Engineering
Art & Architecture Elective	3-5	HASS
Design Elective	3-5	varies with selection
<i>HASS or Technical Electives</i>	6-10	varies with selection
Semester Total SHU		16-21

Fall Semester, Fourth Year

Course	SHU	SOE Attribute
Design Elective	3-5	varies with selection
<i>HASS or Technical Electives</i>	9-15	varies with selections
Semester Total SHU		12-20

Spring Semester, Fourth Year

Course	SHU	SOE Attribute
CEE 81 Capstone	4	Engineering
FAH 98 Integrative Project Seminar	3	HASS
<i>HASS or Technical Electives</i>	6-10	varies with selections
Semester Total SHU		13-17