

Tufts University – School of Engineering
Class of 2025 (requirements as established in the 2021-2022 Bulletin)
Bachelor of Science in Engineering Science (BSES)
Major Requirement

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

The BSES comprises credit requirements and course requirements as established by the School of Engineering. Students must satisfy the SOE requirements listed in the Credit Requirements box, as well as fulfill all course requirements. The School of Engineering requirements are shown in italics and fall outside second major double counting rules. 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 BSES requirements with Tufts courses will earn at least 120 SHU.

Mathematics & Natural Sciences*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
MATH 32 Calculus I	4							
MATH 34 Calculus II	4							
MATH 42 Calculus III	4							
MATH 51 Differential Equations	4							
CHEM 1 Chem. Fund. w/ lab	5							
PHY 11 Gen. Physics I w/ lab	5							
NS Discipline Elective (a)	≥3							
NS Discipline Elective (a)	≥3							
NS Discipline Elective (a)	≥3							
NS Discipline Elective (a)	≥3							
≥45 SHU of SOE-Mathematics + SOE-Natural Sciences are required for the degree. List additional courses below (see note b).								
subtotal	≥45	-	-					

HASS	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
ENG 1* Expos. Writing or ENG 3	3							
Humanities Elective (c)	≥3							
Social Science Elective (d)	≥3							
≥24 SHU of SOE-HASS are required for the degree. List additional courses below (see note e).								
subtotal	≥24	-	-	-	-			

Credit Requirements	SOE Attribute						Total
	E	C	M	NS	HASS	None	
SOE Requirements	≥30		≥30		≥24	-	≥120
BSES Requirements	≥30		≥45		≥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:

Engineering & Computing*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
EN 1 Applications in Eng.	3							
ES 2 Intro. Comp. in Eng. or CS 11 Intro. Comp. Sci.	4							
≥30 SHU of SOE-Engineering + SOE-Computing are required for the degree. List additional courses below (see note f).								
subtotal	≥30			-	-	-	-	

Technical Electives*	SHU	SOE Attribute						Term
		C	E	M	NS	HASS	None	
≥21 SHU total of Technical Electives are required for the degree. List courses below (see note g).								
subtotal	≥21					-	-	

BSES Notes

(a) Natural Science Discipline Electives

Concentrated study in one area of the Natural Sciences. Courses must be at least 3 SHU each and cannot be used to satisfy any other course or elective requirement. Lab courses less than 3 SHU may be used as Mathematics and Natural Sciences Electives or Technical Electives.

Select from:

Any course having attribute SOE-Natural Sciences within a selected discipline.

(b) Mathematics and Natural Sciences Electives

Select from:

Any course having attribute SOE-Mathematics

Any course having attribute SOE-Natural Sciences

(c) Humanities Elective

At least 3 SHU of Humanities are required. Requirement may not be satisfied with pre-matriculation credits, ENG 1, ENG 3, or a course satisfying the Social Sciences Elective (d).

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 or a course satisfying the Humanities elective (c).

Select From:

Any course having attribute SOE-HASS-Social Sciences

(e) 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

(f) Engineering & Computing Electives

Courses selected may not be used to fulfill any other course or elective requirement.

Select from:

Any course having attribute SOE-Computing

Any course having attribute SOE-Engineering

(g) Technical Elective

At least 21 SHU of course work of Technical Elective. Courses selected may not be used to fulfill any other course or elective requirement.

Select from:

Any course having attribute SOE-Computing

Any course having attribute SOE-Engineering

Any course having attribute SOE-Mathematics

Any course having attribute SOE-Natural Sciences

Any of the following additionally approved courses:

Engineering Management: EM 52, EM 54, EM 153, EM 155