Bachelor of Engineering Study Plan - Entering Fall 2024 and later

Stevens Institute of Technology
Castle Point on Hudson
Hoboken, NJ 07030
Department of Biomedical Engineering

Name: _____ ID:_____ E-mail: _____ Class: _____

Major: **Biomedical Engineering**

Instructions Please print or type. The purpose of this study plan is to track your progress to degree completion by outlining the specific courses required for the program and when you expect to take them. Please indicate the term (semester) when you plan to take or have taken each course (e.g., 24F, 25S, 25F, etc.). If a choice of course is given for the requirement, circle the appropriate course number. For electives, fill in the course number. Courses completed via AP/IB or transfer credit should be marked as AP, IB, or TR respectively. Revise this plan as needed. An additional study plan will be required if you wish to pursue a minor or a second degree.

Term	Course	Credits	Grade
	TERM I		
I	CH 115 - General Chemistry I	3.0	____
I	CH 117 - General Chemistry Lab I	1.0	____
I	PRV 101 - First Year Experience	1.0	____
I	ENGR 116 - Introduction to Programming	3.0	____
I	ENGR 111 - Intro to Engineering Design & Systems Thinking	4.0	____
I	MA 121 - Differential Calculus	2.0	____
I	MA 122 - Integral Calculus	2.0	____
I	HASS 103 - Writing and Communications Colloquium	3.0	____
	TERM II		
II	CH 116 - General Chemistry II	3.0	____
II	CH 118 - General Chemistry Laboratory II	1.0	____
II	ENGR 122 - Field Sustainable Systems with Sensors	2.0	____
II	MA 125 - Vectors and Matrices	2.0	____
II	MA 126 - Multivariable Calculus I	2.0	____
II	PEP 111 - Mechanics	3.0	____
II	HASS 105 - Knowledge, Nature, Culture	3.0	____
II	MGT 103 - Introduction to Entrepreneurial Thinking	2.0	____

Term	Course	Credits	Grade
	TERM III		
III	BIO 181 - Biology and Biotechnology **OR**	3.0	_____
	BME 306 - Introduction to Biomedical Engineering	3.0	_____
III	ENGR 211 - Statics and Introduction to Engineering Mechanics	3.0	_____
III	ENGR 245 - Circuits and Systems	4.0	_____
III	MA 221 - Differential Equations	3.0	_____
III	PEP 112 - Electricity and Magnetism	3.0	_____
	TERM IV		
IV	BIO 181 - Biology and Biotechnology **OR**	3.0	_____
	BME 306 - Introduction to Biomedical Engineering	3.0	_____
IV	ENGR 212 - Design of Dynamical Systems	4.0	_____
IV	PRV 20X - Frontiers of Technology	1.0	_____
IV	ENGR 234 - Thermodynamics	3.0	_____
IV	ENGR 241 - Probability and Statistics with Data Science Apps	4.0	_____

Student Signature: _____ Date:_____ ☐ Original ☐ Revision

Academic Advisor Signature: _____ Date:_____ ☐ 2nd Degree

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Term	Course	Credits	Grade
	TERM V		
V	BIO 291 - Cell and Molecular Biology	4.0	
V	BME 312 - Biomaterials in Medical Device Design **AND**	3.0	
	BME 313 - Biomaterials in Medical Device Laboratory **OR**	1.0	
	General Elective[2]: _____	3.0	
V	BME 506 - Biomechanics	3.0	
V	MA 225 - Infinite Series	3.0	
V	MA 226 - Multivariable Calculus II	2.0	
V	Humanities[3]: _____	3.0	
	TERM VI		
VI	BME 312 - Biomaterials in Medical Device Design **AND**	3.0	
	BME 313 - Biomaterials in Medical Device Laboratory **OR**	1.0	
	General Elective: _____	3.0	
VI	BME 322 - Engineering Design VI	2.0	
VI	BME 343 - Biotransport	3.0	
VI	BME 460 - Biomedical Digital Signal Processing Laboratory	2.0	
VI	IDE 399 - Engineering Economics & Project Management	2.0	
VI	PRV 20X - Frontiers of Technology[4]	1.0	
VI	General Elective: _____	3.0	

Term	Course	Credits	Grade
	TERM VII		
VII	BME 423 - Engineering Design VII	3.0	
VII	BME 502 - Physiology for Engineers I	3.0	
VII	BME 512 - Engineering Physiology Lab 1	1.0	
VII	IDE 401 - Senior Innovation-II:Value Proposition	1.0	
VII	PRV 20X - Frontiers of Technology	1.0	
VII	Technical Elective 400 Level[1]: _____	3.0	
VII	Humanities: _____	3.0	
	TERM VIII		
VIII	BME 424 - Engineering Design VIII	3.0	
VIII	BME 465 - Principles of Biomedical Imaging	3.0	
VIII	BME 503 - Physiology for Engineers II	3.0	
VIII	BME 513 - Engineering Physiology Lab 2	1.0	
VIII	IDE 402 - Senior Innovation III: Venture Planning and Pitch	1.0	
VIII	Technical Elective 400 Level: _____	3.0	
VIII	Humanities: _____	3.0	

NOTES:

1. Technical Electives can be selected from available 400-599 courses offered by the BME program. Courses listed in the Areas of Concentration are common choices. Additional courses can be selected with the approval of the student's advisor.
2. General Electives can be selected from available courses offered by programs in SES, SSE, SOB and HASS (including BME courses). Approval from the student's advisor and the course instructor may be required.
3. Humanities: Please see Humanities Requirements for specific requirements.
4. SUCCESS Core Curriculum: Students must complete requirements including PRV 101, and three (3) courses from PRV 201, PRV 202, PRV 203, PRV 204, PRV 205.

ADDITIONAL COURSES - For medical school only; not required for the B.E.

_____	PEP 221 - Physics I Lab	1.0	
_____	PEP 222 - Physics II Lab	1.0	
_____	CH 243 - Organic Chemistry I	3.0	
_____	CH 245 - Organic Chemistry I Laboratory	1.0	
_____	CH 244 - Organic Chemistry II	3.0	
_____	CH 246 - Organic Chemistry II Laboratory	1.0	
_____	CH 580 - Biochemistry I - Cellular Metabolism and Regulation	3.0	

Student Signature: _____ Date: _____ ☐ Original ☐ Revision

Academic Advisor Signature: _____ Date: _____ ☐ 2nd Degree