Bachelor of Science Study Plan - Entering Fall 2025 and later

Stevens Institute of Technology
Castle Point on Hudson
Hoboken, NJ 07030
Department of Chemistry and Chemical Biology

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

Major: **Chemical Biology**

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., 25F, 26S, 26F, 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	BIO 181 - Biology and Biotechnology	3.0	_____
I	BIO 182 - Biology and Biotechnology Laboratory	1.0	_____
I	CH 115 - General Chemistry I	3.0	_____
I	CH 117 - General Chemistry Laboratory I	1.0	_____
I	CH 179 - Career Pathways in Chemical and Biology Sciences	1.0	_____
I	HASS 103 - Writing and Communications Colloquium	3.0	_____
I	MA 121 - Differential Calculus	2.0	_____
I	MA 122 - Integral Calculus	2.0	_____
I	PRV 101 - First Year Experience	1.0	_____
	TERM II		
II	BIO 290 - Cell and Molecular Biology	3.0	_____
II	BIO 292 - Cell and Molecular Biology Laboratory	1.0	_____
II	CH 116 - General Chemistry II	3.0	_____
II	CH 118 - General Chemistry Laboratory II	1.0	_____
II	HASS 105 - Knowledge, Nature, Culture	3.0	_____
II	MA 125 - Vectors and Matrices	2.0	_____
II	MA 126 - Multivariable Calculus I	2.0	_____
II	CH 189 - Seminar in Chemistry and Biology	1.0	_____

Term	Course	Credits	Grade
	TERM III		
III	CH/BIO 301 - Professional Ethics for Scientific Research	1.0	_____
III	PEP 111 - Mechanics	3.0	_____
III	BIO 382 - Biological Systems	4.0	_____
III	CH 243 - Organic Chemistry I	3.0	_____
III	CH 245 - Organic Chemistry Lab I	1.0	_____
III	PRV 20X - Frontiers of Technology[5]	1.0	_____
III	CS 105 - Introduction to Scientific Computing **OR**	3.0	_____
	CS 115 - Introduction to Computer Science	4.0	_____
	TERM IV		
IV	CH 244 - Organic Chemistry II	3.0	_____
IV	CH 246 - Organic Chemistry Laboratory II	1.0	_____
IV	CH 321 - Thermodynamics	3.0	_____
IV	ENGR 241 - Probability & Statistics w/ Data Science Apps	4.0	_____
IV	PEP 112 - Electricity and Magnetism	3.0	_____
IV	PEP 221 - Physics Lab I for Scientists	1.0	_____
IV	PRV 20X - Frontiers of Technology	1.0	_____

Student Signature: _____ Date: _____ ☐ Original ☐ Revision

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

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Term	Course	Credits	Grade
	TERM V		
V	BIO 484 - Genetics	4.0	_____
V	CH 362 - Instrumental Analysis I - Spectroscopy and Chromatography	4.0	_____
V	CH 580 - Biochemistry I - Cellular Metabolism and Regulation	3.0	_____
V	MGT 103 - Introduction to Entrepreneurial Thinking	2.0	_____
V	PEP 222 - Physics Lab II for Scientists	1.0	_____
V	CH/BIO 398 - Research Proposals for Undergraduate Research	1.0	_____
	TERM VI		
VI	CH 421 - Chemical Dynamics	4.0	_____
VI	CH 461 - Instrumental Analysis II - Electrochemistry	4.0	_____
VI	CH 581 - Biochemistry II: Biomolecular Structure and Function	3.0	_____
VI	PRV 20X - Frontiers of Technology	1.0	_____
VI	Humanities:_____	3.0	_____

Term	Course	Credits	Grade
	TERM VII		
VII	BIO 568 - Computational Biology **OR**	3.0	_____
	BIO 583 - Physiology	3.0	_____
VII	CH/BIO 498 - Senior Capstone Research Project I	3.0	_____
VII	Humanities:_____	3.0	_____
VII	General Elective[3]:_____	3.0	_____
VII	Technical Elective[2]:_____	3.0	_____
	TERM VIII		
VIII	CH/BIO 499 - Senior Capstone Research Project II	3.0	_____
VIII	CH 582 - Biophysical Chemistry	3.0	_____
VIII	General Elective:_____	3.0	_____
VIII	Technical Elective:_____	3.0	_____
VIII	Humanities:_____	3.0	_____

ADDITIONAL COURSES

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Notes:

1. Inorganic Chemistry, CH 412, is required if you wish to pursue ACS certification and is only offered in Spring semester. If you are interested, it can be taken in Term V or Term VII. It can be used to fulfill a general elective or technical elective in addition to the ACS certification.
2. Technical Elective: Can be selected from available CH and BIO 300, 400, 500-level as well as selected courses listed below that are not already included in your degree program requirements. Suggested technical electives for the Chemical Biology program include the following
   a. BIO 307, BIO 392, BIO 400, BIO 487, BIO 507, BIO 509, BIO 526, BIO 586, CH 412, CH 520, CH 550, CH 564, CH 574
   b. Whichever of BIO 568 and BIO 583 you choose as a core course, the other may be chosen as a Technical Elective
   c. BIO 682, BIO 683, BIO 684, BIO 687, CH 685, BME 504, BME 505, BME 508/MT 508, BME 515, BME 561, BME 602, CHE 560, CS 544, EM 623, EM 626, MGT 609, MGT 616, MT 581, PME 530/CHE 530
   d. If you are interested in taking a course related to biology or chemistry in another department not on this list, please contact your academic advisor.
3. General Electives can be selected from available courses offered by programs in SES, SOB and HASS (including CH/BIO courses). Approval from the student's advisor and the course instructor may be required.
   a. Recommended general elective if planning to pursue an engineering master's: MA 221 Differential Equations.
   b. Recommended general elective courses connected to the major include: EN 250 Quantitative Biology and PEP 242 Modern Physics.
4. Humanities: Please see Humanities Requirements for specific requirements.
5. PRV 20SS Core Curriculum: Students must complete requirements including PRV 101, and three (3) courses from PRV 201, PRV 202, PRV 203, PRV 204,

Student Signature: _____ Date:_____ ☐ Original ☐ Revision

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