Biotechnology - BS 120 Earned Credits Total

ID	Stude

Student ID:

ent: Advisor:

ABOUT THE BS in BIOTECHNOLOGY

The Biotechnology major is designed to prepare students for professional careers in the biotechnology and biomedical industries in the areas of research and development, quality control, processing, operations, and technical support. This major requires some key courses to be taken at the Providence Campus. **Included is a 12-credit internship at a regional biotechnology, biomedical company/organization, or research laboratory.

Step 1: REVIEW YOUR PROGRAM REQUIREMENTS

INTRODUCTION Requirement: (2 credits)

Course	Semester	Credits	Grade
BTC 102		1	
URI 101		1	
BIOLOGY Requiremen	nt: (15 credits		
Course	Semester	Credits	Grade
*BIO 101		3	
*BIO 103		1	
*BIO 102		3	
*BIO 104		1	
BIO/CMB 341		3	
BIO/CMB 352		4	

CHEMISTRY Requirement: (12 credits)

Course	Semester	Credits	Grade
*CHM 101		3	
CHM 102		1	
CHM 112		3	
CHM 114		1	
CHM 124		3	
CHM 126		1	

MATH Requirement: (6-8 credits)

Select 1 from the following sequeneces:

Course	Semester	Credits	Grade			
*MTH 103/111		3				
*MTH 131/141		3/4				
	OR					
*MTH 131/141		3/4				
STA 307/308/409		3/4				

PHYSICS Requirement: (4 credits)

Course	Semester	Credits	Grade
*PHY 111		3	
*PHY 185		1	

*Course approved for general education.

Minimum 2.0 cumulative GPA required in major for graduation. Minimum overrall 2.0 cumulative GPA required for graduation.

Course	Semester	Credits	Grade
BTC 110	Fall	3	
BTC 111	Fall	1	
*CMB 190		3	
*CMB 211		4	
CMB 311		3	
CMB 333	Fall	3	
BTC 405	Fall	3	
CMB 437	Spring	3	
BTC 195	Spring	5	
BTC 199	Summer	12	

**The 12 credit BTC 199 internship can be taken in the summer following either after Freshman, Sophmore, or Junior Years. An internship cannot be guaranteed. In lieu of internship, 12 credits of selected courses from CMB 320, CMB 334, CMB 421, CMB 432, CMB 435, CMB 450, CMB 464, and/ or CMB 482

Free Electives: These are courses not required by the major and do not fulfill general education.

Course	Semester	Credits	Grade

THE UNIVERSITY OF RHODE ISLAND

120 Earned Credits Total

Biotechnology - BS

Student:

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General Education Guidelines:

General education is 40 credits. Each of the twelve outcomes (A1-D1) must be met by at least 3 credits. A single course may meet more than one outcome, but cannot be double counted towards the 40 credit total. At least one course must be a Grand Challenge (G). No more than twelve credits can have the same course code. General education courses may also be used to meet requirements of the major or minor when appropriate.

LIST COURSES THAT MEET GENERAL EDUCATION:

	General Education Credit Count					
A	At least 40 credits, no more than 12 credits with the same course code					
Course	Credits	Grade		Course	Credits	Grade
*BIO 101	3					
*BIO 103	1					
*BIO 102	3					
*BIO 104	1					
*CHM 101	3					
*MTH						
*PHY 111	3					
*PHY 185	1					
*CMB 190	3					
*CMB 211	4					
				Total Gen		
				Ed Credits		

NOTE: BECAUSE MOST COURSES MEET MORE THAN ONE OUTCOME, YOUR OUTCOME AUDIT MIGHT BE COMPLETED BEFORE YOU REACH YOUR 40 CREDITS. HOWEVER, YOU MUST STILL COMPLETE 40 CREDITS OF GENERAL EDUCATION

*course fulfills general education and a major requirement

LIST COURSE AS EACH OUTCOME IS MET:

General Education Outcome Audit				
	Course	Grade		
KNOWLEDGE				
A1. STEM	*BIO 101			
A2. Social & Behavioral Sciences				
A3. Humanities				
A4. Arts & Design				
COMPETENCIES				
B1. Write effectively				
B2. Communicate effectively				
B3. Mathematical, statistical, or computational strategies	*MTH_			
B4. Information literacy				
RESPONSIBILITIES				
C1. Civic knowledge & responsibilities				
C2. Global responsibilities				
C3. Diversity & Inclusion				
INTEGRATE & APPLY				
D1. Ability to synthesize	*CMB 211			
GRAND CHALLENGE				
G. At least one course of your 40 credits is an approved "G" course				

The requirement for transfer to CELS out of University College for Academic Success: Minimum 24 credits and cumulative 2.0 GPA.

Advising Notes:

B.S. Biotechnology Sample 4 Year Plan - Effective Fall 2024 **College of the Environment & Life Sciences**

Freshman Year Fall Semester

Course Code	Description	Credits
URI 101	Planning for Academic Success	1
BIO 101/103	Principles of Biology I/Lab	4
CHM 101/102	General Chemistry I/Lab	4
MTH 103, 111, 131, OR 141	Precalculus or Calculus <i>Refer to</i> page 1 for math sequence	3/4
BTC 110/BTC111	Intro Biotech/Lab Methods	4
		16-17

Freshman Year Spring Semester

Course Code	Description	Credits
BIO 102/104	Principles of Biology II/Lab	4
CHM 112/114	General Chemistry II/Lab	4
BTC 102	Biotech. Internship Prep	1
BTC 195	Biotech. Manufacturing Methods	5
CMB 190	Issues in Biotechnology	3
		17

Freshman or later Summer*

Course Code	Description	Credits	
BTC 199	Internship	12	
Year 1 Milestones: Co	omplete BIO 101, 103, 102, 104, CHM	112/114,	CMB 190, BTC 110, 111 and 195 and a cumulative GPA of 2.0 or higher.

Sophmore Year Fall Semester

Course Code	Description	Credits
CMB 211	Microbiology	4
PHY 111/185	General Physics I/Lab	4
CHM 124/126	Intro Organic Chemistry/Lab	4
	General Education Course	3
		15

Sophmore Year Spring Semester

Course Code	Description	Credits	
BIO/CMB 352	Genetics	4	
- / -	Calculus or Statistics <i>Refer to page</i> 1 for math sequence	3-4	
CMB 311	Biochemistry	3	
	General Education Course	3	
		13-14	
, CMB 211. Meet with a Biotechnology Faculty advisor to plan year 3 and			

Year 2 Milestones: Complete BIO/CMB 352, MTH 131/141, CHM 124, 12 4 courses. Earn at least 70 total credits with a cumulative GPA of 2.0 or higher.

Junior Year Fall Semester

Course Code	Description	Credits
BIO/CMB 341	Cell Biology	3
CMB 333	Immunology	3
BTC 405	Drug Discovery and Develop.	3
	General Education or Elective	3-4
		12-13

Junior Year Spring Semester

Course Code	Description	Credits		Course Code	Description	Credits
BIO/CMB 341	Cell Biology	3		CMB 437	Fundamentals of Molecular Bio.	3
CMB 333	Immunology	3			General Education or Elective	3-4
BTC 405	Drug Discovery and Develop.	3			General Education or Elective	3-4
	General Education or Elective	3-4			General Education or Elective	3-4
		12-13				12-15
Year 3 Milestones: Complete BIO/CMB 341, CMB 333, 437, PHY 111, 185 and BTC 405, . Meet with a Biotechnology Faculty advisor to plan year 4 courses. Earn 90 total credits with a cumulative GPA of 2.0 or higher. Prepare intent to graduate with faculty advisor for Fall submission.						

Senior Year Fall Semester

Course Code	Description	Credits
	General Education or Elective	3
	General Education or Elective	3
	General Education or Elective	3
	General Education or Elective	3

Course Code	Description	Credits
	General Education or Elective	3
	General Education or Elective	3
	General Education or Elective	3
	General Education or Elective	3
		12

Senior Year Spring Semester

Year 4 Milestones: Complete remaining Biotechnology required concentration courses Earn total 120 credits with a cumulative GPA of 2.0 or higher. Minimum 2.0 cumulative GPA in BIO/CMB concentration courses.

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