

BIOMATHEMATICS

Plan of Study

Below is a *sample plan* of study that illustrates one way to achieve the program requirements. Any given student's plan of study may differ based on a variety of factors (e.g., advanced credit, placement exams, adding a minor). Enrolled students will work with their academic advisor; utilize the degree audit/planner to create a specific plan of study.

Course	Title	Hours
Freshman		
Fall		
BIO 130	Evolution & Diversity	4
MA 111	Calculus I	5
CHEM 111	General Chemistry I	3
CHEM 111L	General Chemistry I Lab	1
HUM H190	First-Year Writing Seminar	4
RHIT 100	Foundations for Rose-Hulman Success	1
Hours		18
Winter		
PH 111	Physics I	4
PH 111L	Physics I Lab	0
MA 112	Calculus II	5
CHEM 113	General Chemistry II	3
CHEM 113L	General Chemistry II Laboratory	1
BIO 110	Cell Structure and Function	4
Hours		17
Spring		
CSSE 120	Introduction to Software Development	4
PH 112	Physics II	4
PH 112L	Physics II Lab	0
MA 113	Calculus III	5
HSSA Elective		4
Hours		17
Sophomore		
Fall		
BIO 210	Mendelian & Molecular Genetics	4
MA 221	Matrix Algebra & Differential Equations I	4
HSSA Elective		4
PH 113 or CHEM 251	Physics III (PH113 requires lab) or Organic Chemistry I	4
Hours		16
Winter		
BIO 220	Microbiology	4
MA 222	Matrix Algebra & Differential Equations II	4
MA 381	Introduction to Probability with Applications to Statistics	4
HSSA Elective		4
MA 200	Career Preparation	1
Hours		17
Spring		
BIO 230	Cell Biology	4
MA 371	Linear Algebra I	4
HSSA Elective		4
BMTH 301	Introduction to Biomathematics: Continuous Models	4
Hours		16
Junior		
Fall		
BMTH 311	Systems Biology	4
MA 382	Introduction to Statistics with Probability	4

HSSA Elective		4
Elective ¹		4
Hours		16
Winter		
BMTH 312	Bioinformatics	4
MA 332	Introduction to Computational Science	4
ENGL H290	Technical & Professional Communication	4
Elective ¹		4
Hours		16
Spring		
BMTH Elective		4
HSSA Elective		4
Elective ¹		4
Elective ¹		4
Hours		16
Senior		
Fall		
BMTH 496	Capstone Experience I	2
HSSA Elective		4
Elective ¹		4
Elective ¹		4
Hours		14
Winter		
BMTH 497	Capstone Experience II	4
BMTH 413	Computational Biology	4
Elective ¹		4
Elective ¹		4
Hours		16
Spring		
BMTH 498	Capstone Experience III	2
Elective ¹		4
Elective ¹		4
Elective ¹		4
Hours		14
Total Hours		193

- ¹ **Requirements:**
 3 Free Electives 12 hours
 2 MA Electives 8 hours
 5 Tech Electives 20 hours
 1 Domain Elective 4 hours