

## Bioinformatics

### Recommended Four-Year Plan (Fall 2023)

The recommended four-year plan is designed to provide a blueprint for students to complete their degrees within four years. Students must meet with their Major Advisor to develop a more individualized plan to complete their degree. This plan assumes that no developmental courses are required. If developmental courses are needed, students may have additional requirements to fulfill which are not listed in the plan and may extend degree completion.

**NOTE:** This recommended Four-Year Plan is applicable to students admitted into the major during the 2023-2024 academic year.

First Year					
Fall Semester	HRS	✓	Spring Semester	HRS	✓
Gen Ed: INTD 101-First Year Seminar	4		BIOL 113 & BIOL 113L-Fundamentals of Biology II Lecture & Lab*	4+1	
Gen Ed: CHEM 116 & CHEM 116L-General Chemistry I Lecture & Lab	4+1		CHEM 117 & CHEM 117L-General Chemistry II Lecture & Lab*	4+1	
Gen Ed: CRWT 102 - Critical Reading & Writing II	4		CMPS 130 - Sci Problem Solving-Python	4	
BIOL 111 & BIOL 111L-Fundamentals of Biology I Lecture & Lab <b>WI</b>	4+1		Gen Ed: MATH 121-Calculus I*	4	
			TAS Pathways Module 1: (PATH-TS1) Career Assessment/ Advising	<b>Degree Rqmt.</b>	
<b>Total:</b>	18		<b>Total:</b>	18	

Second Year					
Fall Semester	HRS	✓	Spring Semester	HRS	✓
CHEM 211 & CHEM 211L -Organic Chemistry I Lecture & Lab * OR CHEM 206 & CHEM 206L-Essentials of Organic Chemistry Lecture* & Lab*	4+1		CHEM 213 & CHEM 213L-Organic Chemistry II Lecture* & Lab* OR Elective(s)	4+1	
CMPS 240-Data Analytics in Python*	4		BIOL 332 & BIOL 332L-Genetics Lecture & Lab*	4+1.5	
DATA 101-Introduction to Data Science	4		PSYC 242-Statistics* OR ENSC 345-Research Design & Statistics*	4	
Gen Ed: SOSC 110-Social Science Inquiry	4				
TAS Pathways Module 2: (PATH-TS2) Resume/ CV Writing	<b>Degree Rqmt.</b>		TAS Pathways Module 3: (PATH-TS3) Interview Preparation	<b>Degree Rqmt.</b>	
<b>Total:</b>	17		<b>Total:</b>	14.5	

Third Year					
Fall Semester	HRS	✓	Spring Semester	HRS	✓
BIOL 407 & BIOL 407L-Cell & Molecular Biology Lecture* & Lab* <b>WI</b>	4+1.5		BIIN 430-Bioinformatics*	4	
MATH 237-Discrete Structures*	4		CMPS 364-Database Design*	4	
Bioinformatics Elective (Group I)	4		Gen Ed: Gen Ed: Culture & Creativity, Systems Sustainability & Society, Values & Ethics	4	
Gen Ed: AIID 201-Studies in the Arts & Humanities	4		Gen Ed: Historical Perspectives	4	
<b>Total:</b>	17.5		<b>Total:</b>	16	

Fourth Year					
Fall Semester	HRS	✓	Spring Semester	HRS	✓
Bioinformatics Elective (Group II)	4		BIIN 450-Advanced Bioinformatics* <b>WI</b>	4	
Gen Ed: Global Awareness	4		Gen Ed: Gen Ed: Culture & Creativity, Systems Sustainability & Society, Values & Ethics ( <b>Must be outside of TAS</b> )	4	
Bioinformatics Elective (one semester Honors Research)	0-1		Bioinformatics Elective (Group I or II or second semester Honors Research)	1 or 4	
Bioinformatics Elective (Group II)	4		Elective(s)	2-5	
Elective	1-2				
<b>Total:</b>	14		<b>Total:</b>	14	

**Total Credits Required:** 128 credits

**GPA Required:** 2.0

\* This course has a pre-requisite. Please refer to the course catalog for information about pre-requisites.

**WI:** Writing Intensive-3 required in the major