Bioinformatics - B.S.

Bioinformatics is a sub-discipline of biology and computer science concerned with the acquisition, storage, analysis, and dissemination of biological data, most often DNA and amino acid sequences. **Bioinformatics** offers a multidisciplinary deductive view of Biology, and the use of Information Technologies to develop/apply large data structures. It is rapidly developing into an applied science leading to solutions for problems which have been resistant to experimental methods.

Degree Requirements

Total Academic Credits: 120
 Min. Cumulative GPA: 2.0
 Core Requirements: 52

Curriculum Notes

This sample plan assumes no Advanced Placement or Transfer Credits and Math Placement into MATH 150.
Students must complete a credit-bearing English and Mathematics course in the first year of study.
This sample plan is provided as a guide only. Students must meet with Academic and Faculty Advisors each semester for final approval of courses. The Academic Department makes all final decisions on course requirements for degree completion.

Year One

Fall Semester	Credits	Spring Semester	Credits
ENGL 101 Expository Writing	3	ENGL102 Argument & Research	3
BIOL 102 Introductory Biology	4	BIOL 209 General Genetics	4
FRSE 101 Freshman Seminar	3	COSC 112 Computer Science I	4
HEED 102 Life & Health	3	CHEM 107 General Chemistry I	4
MATH 150 Comprehensive PreCalc	4		
Total			
	16	**Total**	18

Special Note: If you place into MATH 90, you will take MATH 90 & 141 first semester and take BIOL102 and the correct MATH sequence second semester (see Dept)

Year Two

Fall Semester	Credits	Spring Semester	Credits
CHEM 108 General Chemistry II	4	CHEM 201 Organic Chemistry I	4
COSC 113 Computer Science II	4	COSC 214 Data Struc & Algorithm	4
MATH 225 Calculus I	4	MATH 226 Calculus II	4
		PHYS 353 Phys for Bioinformatics	4
Total	15		
		Total	16

Year Three

Fall Semester	Credits	Spring Semester	Credits
CHEM 202 Organic Chemistry II	4	CHEM 309 Biochemistry I	4
COSC 473 Artificial Intelligence	3	BIOL 313 Cell Biology	4
MATH 228 Linear Algebra	3	BIOL 303 Molecular Biology	4
BIOL 309 Microbiology I	4	HIST 114/115 Afro American History	3

	Total	**14**		Total	15

Year Four

Fall Semester	Credits	Spring Semester	Credits
BIOL 421 Bioinformatics (Fall only)	4	Arts & Humanities Elective	3
Math 155 Intro Probability & Stats	3	Social Science Elective	3
BIOL/COSC/CHEM Elective (300 level)	3	BIOL/COSC/CHEM elective (400 level)	4
BIOL 403 Biology Seminar	2	BIOL/COSC/CHEM elective (400 level)	4
GE Elective	3		
Total	15	**Total**	14