

B.S. Computer Science/Bioinformatics (CS 27): Major Checklist, Fall 2019

Completed	<i>Lower Division</i>
	Mathematics
	Math 20A, Calculus for Science and Engineering
	Math 20B, Calculus for Science and Engineering
	Math 20C, Calculus for Analytical Geometry for Science and Engineering
	Math 18, Linear Algebra
	Chemistry/Chemistry Lab
	Chem 6A, General Chemistry I
	Chem 6B, General Chemistry II
	Organic Chemistry: CHEM 40A, Organic Chemistry I
	Biology
	BILD 1, The Cell
	BILD 3, Organismic and Evolutionary Biology
	BILD 4, Introductory Biology Lab
	Computer Programming
	CSE 8B/CSE 11, Introduction to Computer Science: Java
	CSE 12, Basic Data Structures and Object-Oriented Programming
	CSE 15L, Software Tools and Techniques Laboratory
	CSE 21, Mathematics for Algorithms and Systems
	CSE 30, Computer Organization and Systems Programming
	Physics
	Phys 2A, Physics- Mechanics
Completed	<i>Upper Division</i>
	Computer Science
	CSE 100, Advanced Data Structures
	CSE 101, Design and Analysis of Algorithms
	Biochemistry: CHEM 114A, Biochemical Structure and Function <u>or</u> BIBC 102, Metabolic Biochemistry
	Genetics: BICD 100
	Molecular Biology: BIMM 100
	Recombinant DNA Techniques: BIMM 101
	Bioinformatics
	CSE 181 <u>or</u> BIMM 181 <u>or</u> BENG 181, Molecular Sequence Analysis
	CSE 182 <u>or</u> BIMM 182 <u>or</u> BENG 182 <u>or</u> CHEM 182, Biological Databases
	BENG 183, Applied Genomic Technologies
	CSE 185, Bioinformatics Laboratory (Advanced) (Previously BIMM 185)
	Math 186, Introduction to Probability and Statistics for Bioinformatics
	CSE Electives (6 Total, 4 units each)
	CSE Elective
	CSE Elective
	CSE Elective
	CSE Elective
	CSE Elective
	CSE Elective (may also be from approved list of Technical Electives)

Important:

- ALL major requirements must be taken for letter grade AND passed with a C- or better with the exceptions of: CSE 95, CSE 197, CSE 198, and CSE 199.
- A maximum of 4 units of special studies courses may count towards CSE Electives from the following: CSE 197, 198, 199, 199H, ENG 100D, or ENG 100L