

# Bioinformatics B.S. Degree 2016-2017 Curriculum Chart

## Math

**CMPE 16**  
Applied Discrete Math

**MATH 19A**  
Calculus

OR

**MATH 20A**  
Honors Calc

**MATH 19B**  
Calculus

OR

**MATH 20B**  
Honors Calc.

**MATH 23A**  
Multivariable Calculus

**AMS 131**  
Probability Theory

**AMS 132**  
Statistical Inference

## Bioinformatics

**BME 80G**  
Bioethics

**BME 110**  
Computational Biology Tools

**BME 130**  
Genomes

**BME 205**  
Bioinformatics Models and Algorithms

ONE of the following:

**BME 211**  
Computational Systems Biology

**BME 230/L**  
Computational Genomics

**BME 195**  
Senior Thesis

## Engineering

**CMPS 12A/L\***  
Intro to Programming

**CMPS 12B/M**  
Data Structures

**CMPS 101**  
Abstract Data Types

**CMPS 109**  
Advanced Programming

OR

**BME 160/L**  
Research Programming

**CMPS 180**  
Database Systems

OR

**CMPS 182**  
Intro to Database

**CMPE 185\*\***  
Technical Writing  
OR  
**BME 185\*\***  
Technical Writing for  
Bioengineers

\*Students may choose to take CMPS 5J and 11; or  
CMPE 12/L and 13/L in place of CMPS 12A/L.

\*\*Satisfies the DC requirement

## Science

**CHEM 1A**  
General Chemistry

**CHEM 1B/M**  
General Chemistry

**CHEM 1C/N**  
General Chemistry

**CHEM 8A**  
Organic Chemistry

**CHEM 8B**  
Organic Chemistry

**BIOL 20A**  
Cell & Molecular Biology

**BIOE 20B**  
Development & Physiology

**BIOL 105**  
Genetics

**BIOC 100A**  
Biochemistry

### Notes:

- All students admitted to a School of Engineering major, or seeking admission to a major, must take all courses required for that major for a letter grade.
- Courses in which you receive a grade of C-, D+, D, or D- earn credit toward graduation, but cannot be used to satisfy a major requirement or a general education requirement, and cannot satisfy a prerequisite for another course.
- The School of Engineering has different major declaration deadlines than the UCSC Academic/Administrative calendar. Our deadlines and process can be found on: <http://ua.soe.ucsc.edu/declare>

**Admission Requirements to Bioinformatics:** Students must complete 50 units from the following list by the end of the fifth quarter (60 by the 7<sup>th</sup>, 70 by the 8<sup>th</sup>, or 80 by the 9<sup>th</sup> quarter) and have a GPA of 2.8 or better in all attempts: BIOL 20A, BIOE 20B, BME 80G, CHEM 1A, CHEM 1B/M, CHEM 1C/N, CMPE 16, CMPS 12A/L (or CMPS 5J and 11 or CMPE 12/L and 13/L), CMPS 12B/M, MATH 19A, MATH 19B, MATH 23A, AMS 131, CHEM 8A, CHEM 8B, and CMPS 101

**Bioinformatics B.S. Degree  
2016-2017 Curriculum Chart**

Fall	Winter	Spring	Summer

Fall	Winter	Spring	Summer

Fall	Winter	Spring	Summer

Fall	Winter	Spring	Summer

Student Name:

Staff Advisor:

Faculty Advisor: