

Bioinformatics B.S. Degree 2015-2016 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

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 108A/L
Organic Chemistry

CHEM 108B/M
Organic Chemistry

BIOL 20A
Cell & Molecular Biology

BIOE 20B
Development & Physiology

BIOL 105
Genetics

BIOC 100A
Biochemistry

Electives

One course, approved by faculty advisor, consider the following:

AMS: 162

BIOC: 100B, 100C, 110

**BIOL: 105L, 105M, 109L, 110, 115, 115L,
117A, 117B, 140, 187L, 200A, 200B**

**BME: 101/L, 128, 140, 150, 155, 177, 178,
211, 230**

CMPE: 108, 177

**CMPS: 104A, 105, 115, 116*, 130, 140, 142,
160/L**

METX: 119, 119L

TIM: 105, 206

Students must justify their choice in writing and be approved by their faculty advisor.

*Additional prerequisite course required

Admission Requirements to Bioinformatics: Students must complete 50 units from the following list by the end of the fifth quarter (60 by the 7th, 70 by the 8th, or 80 by the 9th 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 108A/L, CHEM 10B/M, and CMPS 101

**Bioinformatics B.S. Degree
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Fall	Winter	Spring	Summer

Fall	Winter	Spring	Summer

Fall	Winter	Spring	Summer

Fall	Winter	Spring	Summer

BINF Electives Approval Form

Student Name _____

Student ID _____

Elective 1 _____

Explanation of elective choice:

Faculty Advisor's Approval: _____ Date: _____