

Bioinformatics B.S. Degree Curriculum Chart: 2013-2014

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

CMPE 107
Stochastic Math
Methods

OR

AMS 131
Probability Theory

AMS 132
Statistical
Inference

OR

AMS 206
Bayesian Statistics

Bioinformatics

BME 80G
Bioethics

BME 110
Computational Biology Tools

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

OR

CMPS 5J
Intro to
Program.
Java

AND

CMPE 12/L
Comp. System
and Assembly
Language

OR

AND

CMPS 11
Intermediate
Program.

CMPE 13/L
Comp Systems
And C Prog.

CMPS 12B/M
Data Structures

CMPS 101
Abstract Data Types

CMPS 109
Advanced Programming

CMPS 180
Database Systems

OR

CMPS 182
Intro to Database
Management Systems

CMPE 185**
Technical Writing

Notes:

Shaded boxes represent foundation courses

* Additional prerequisite courses required

** Satisfies the DC requirement

Please mark each class on this page accordingly before meeting with faculty:

T: Credit for class received through AP credit/transfer credit

Quarter/Year: The quarter & year you anticipate taking the class and/or have taken it

Science

CHEM 1A
General Chemistry

CHEM 1B/M
General Chemistry

CHEM 1C/N
General Chemistry

CHEM 108A/L
Org. Chem

AND

CHEM 108B/M
Org. Chem

OR

CHEM 112A/L

AND

CHEM 112B/M

AND

CHEM 112C/N

BIOL 20A
Cell & Molecular Biology

BIOL 105
Genetics

BIOC 100A
Biochemistry

ONE of the following:

BIOL 110
Cell Biology

BIOL 115
Eukaryotic Molecular Biology

BIOL 119
Microbiology

BME 155
Biotechnology and Drug
Development

Electives

Two courses, approved by faculty advisor, consider the following:

AMS: 132, 203, 205, 207, 215

BIOC: 100B, 100C, 110

BIOL: 100L*, 105L, 105M, 109L, 110, 115, 115L*, 117A*, 117B, 119, 119L*, 187L*, 200A, 200B

BME: 102, 109, 130, 230

CHEM: 103, 108B/M, 112C/N, 200A, 200B, 200C

CMPE: 108, 177

CMPS: 101, 104A, 105, 115, 116*, 130, 140*, 142, 160/L

TIM: 206, 250

Choices must form a coherent program and be approved by a faculty advisor for bioinformatics.

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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 _____

Elective 2 _____

Explanation of choice of electives:

Faculty Advisor's Approval: _____ Date: _____