Bioinformatics BS Degree
Curriculum Chart
2011-2012

Math

CMPE 16
Applied Discrete Math

MATH 19A
Calculus

MATH 20A
Honors Calc.

MATH 19B
Calculus

MATH 20B
Honors Calc.

MATH 23A
Multivariable Calculus

CMPE 107
Stochastic Math Methods

AMS 131
Probability Theory

AMS 132
Statistical Inference

AMS 206
Bayesian Statistics

Science

CHEM 1A
General Chemistry

CHEM 1B/M
General Chemistry

CHEM 1C/N
General Chemistry

CHEM 108A/L
Organic Chemistry

CHEM 112B/M
Org. Chem.

(with the grade B or above)

BIO 20A
Cell & Molecular Biology

BIO 105
Genetics

BIOC 100A
Biochemistry

ONE of the following:

BIO 110
Cell Biology

BIO 115
Eukaryotic Molecular Biology

BIO 119
Microbiology

BME 155
Biotechnology and Drug Development

Engineering

CMPS 5J
Intro to Program. Java

CMPS 12/L
Comp. System and Assembly Language

CMPS 12A/L
Intro to Programming

CMPS 11
Intermediate Program.

CMPS 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

CMPS 182
Intro to Database Management Systems

CMPS 185
Technical Writing

Electives

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

AMS: 132, 203, 205, 207, 215

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

BIOC: 100B, 100C, 110


BIO 105
Genetics

BIO 110
Cell Biology

BIO 119
Microbiology

BME 155
Biotechnology and Drug Development

BME 80G
Bioethics

PHIL 145
Genetics Ethics

BME 110
Computational Biology Tools

BME 205
Bioinformatics Models and Algorithms

BME 211
Computational Systems Biology

BME 220/L
Protein Bioinformatics

BME 230/L
Computational Genomics

BME 195
Senior Thesis

Shaded boxes represent foundation courses
* Additional prerequisite of CHEM 108B/M or CHEM 112C/N waived if grade in CHEM 108A/L or CHEM 112A/L and CHEM 112B/M is B or above. Substitution of BIO 100/K is preapproved for majors and is planned for the 2012-13 catalog.

* Additional prerequisite courses required

http://ua.soe.ucsc.edu • advising@soe.ucsc.edu • (831) 459-5840 • 7/12/2011
## BIOINFORMATICS BS DEGREE CURRICULUM

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### BINF Electives Approval Form

Student Name ___________________________________________
Student ID ___________________________________________

Elective 1 ___________________________________________
Elective 2 ___________________________________________

Explanation of choice of electives:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Faculty Advisor’s Approval: _______________________________ Date: ___________

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