UCSC Baskin School of Engineering
Bioinformatics BS Degree
Curriculum Chart
2005-2006

**Math**
- CMPE 16 or 16H
  Discrete Math
- MATH 19A or 20A
  Calculus, Honors Calculus
- MATH 19B or 20B
  Calculus, Honors Calculus
- MATH 23A
  Multivariable Calculus
- CMPE 107 or AMS 131
  Stochastic Probability Theory
- AMS 206
  Bayesian Statistics

**Engineering**
- CMPS 13H
  Programming (Honors)
- CMPS 101
  Abstract Data Types
- CMPS 180
  Database Systems
- CMPS 185
  Technical Writing
- CMPS 12A/L
  Programming
- CMPS 12B/M
  Data Structures
- CMPS 109
  Advanced Programming
- CMPS 104A*
  Compiler Design I
- CMPS 109L*
  Advanced Programming
- CMPS 115*
  Software Methodology

Choose One
- BME 109
  Resource-Efficient Programming
- CMPE 177
  Graph/Algorithms
- CMPS 104A*
  Compiler Design I

**Science**
- CHEM 1B/M
  General Chemistry
- CHEM 108A/L
  Organic Chemistry
- CHEM 112A/L
  Organic Chemistry
- CHEM 112B/M
  Organic Chemistry
- BIOL 20A or BIOL 21A
  Cell & Molecular Biology
- BIOL 20B or BIOL 21B
  Development & Physiology
- BIOC 100A*
  Biochemistry

**Bioinformatics**
- BME 80G
  Bioethics
- PHIL 145*
  Genetics Ethics
- BME 110
  Computational Biology Tools
- BME 205
  Bioinformatics
- BME 220/L
  Protein Bioinformatics
- BME 230/L
  Computational Genomics
- BME 195
  Senior Thesis

**Electives**
Two courses; approved by faculty advisor; Recommended List:
- AMS: 147, 156, 162, 174, 203, 205, 207, 215
- BIOC: 100B, 100C*, 110*

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

Shaded boxes represent foundation courses which must be completed before applying to the major.

* Additional prerequisite courses required
† Additional prerequisite of CHEM 108B/M or CHEM 112C/N waived if grade in prior course is B or above.
## BINF Electives Approval Form

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**Student Name** ___________________________________________

**Student ID** _____________________________________________

**Elective 1** ____________________________________________

**Elective 2** ____________________________________________

**Explanation of choice of electives:**

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**Faculty Advisor’s Approval:** _______________________________   **Date:** ___________