### Math and Statistics

- **MATH 19A** (or **MATH 20A**)  
  Calculus I
- **MATH 19B** (or **MATH 20B**)  
  Calculus II
- **CSE 16**  
  Discrete Math
- **STAT 131**  
  Intro to Probability Theory
- **STAT 132**  
  Statistical Inference

### Chemistry

- **CHEM 1A**  
  General Chemistry
- **CHEM 1B/M**  
  (7 units)  
  General Chemistry/Lab
- **CHEM 1C/N**  
  (7 units)  
  General Chemistry/Lab
- **CHEM 8A**  
  Organic Chemistry
- **CHEM 8B**  
  Organic Chemistry

### Biology & Biochemistry

- **BIOL 20A**  
  Cell & Molecular Biology
- **BME 105**  
  (Strongly Recommended)  
  Genetics in the Genomics Era  
  OR  
  **BIOL 105**  
  Genetics
- **BIOC 100A**  
  Biochemistry & Molecular Biology

### Humanities

- **BME 80G**  
  Bioethics
- **BME 185**  
  Technical Writing for Bioengineers  
  OR  
  **CSE 185E**  
  Technical Writing

### Elective

  (Recommended), or 5-unit BME grad course not already required

### Programming & Bioinformatics

- **BME 160**  
  (Recommended)  
  Research Programming
- **BME 163**  
  Applied Visualization and Analysis
- **BME 110**  
  Computational Biology Tools
- **CSE 13S**  
  (7 units)  
  Computer Systems and C Programming
- **CSE 182**  
  Introduction to Database Management Systems

### Bioinformatics Capstone

- **BME 205**  
  Bioinformatics Models and Algorithms
- **BME 230A**  
  Intro. Computational Genomics and Systems Biology
- **BME 230B**  
  Adv. Computational Genomics and Systems Biology (Not required but recommended)

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* Denotes courses that have additional prerequisites not required for the major.
† Students can substitute CMPS 180 in place of CMPS 182. However CMPS 180 has additional prerequisites.
Ω CSE 20 Beginning Programming in Python is recommended for students who have never programmed.
Ψ Students may petition to substitute STAT 206 for STAT 132.
### 2018-19 Biomolecular Engineering and Bioinformatics: Bioinformatics DRAFT

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**Student Name:**

**Staff Advisor Signature:**