**Math and Statistics**
- **MATH 19A** (or **MATH 20A**)
  Calculus I

- **MATH 19B** (or **MATH 20B**)
  Calculus II

- **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

**Laboratory Courses**
- **BME 22L**
  Foundations of Design and Experimentation in Molecular Biology, Part I
  **AND**

- **BME 23L**
  Foundations of Design and Experimentation in Molecular Biology, Part II
  **OR**

- **CHEM 8L**
  Organic Chemistry Laboratory
  **AND**

- **CHEM 8M**
  Organic Chemistry Laboratory

**Physics and Electronics**
- **PHYS 5A/L**
  (6 units)
  (or **PHYS 6A/L**)
  Intro to Physics/Lab

- **BME 51A**
  Applied Electronics I

- **BME 51B**
  Applied Electronics II

**Elective**
- **BIO 115, METX 119, BIOC 100C, BME 122H, BME 128, BME 128L, BME 130, BME 132, BME 140, BME 177, BME 178, or 5-unit BME grad course(e.g. BME 230B)**

**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

**Laboratory Courses**
- **BME 22L**
  Foundations of Design and Experimentation in Molecular Biology, Part I
  **AND**

- **BME 23L**
  Foundations of Design and Experimentation in Molecular Biology, Part II
  **OR**

- **CHEM 8L**
  Organic Chemistry Laboratory
  **AND**

- **CHEM 8M**
  Organic Chemistry Laboratory

**Humanities**
- **BME 80G**
  Bioethics

- **BME 185**
  (recommended)
  Technical Writing for Biomolecular Engineers
  **OR**

- **CSE 185E**
  Technical Writing for Computer Engineers

**Biochemistry & Genetics**
- **BIOC 100A**
  Biochemistry & Molecular Biology

- **BIOC 100B**
  Biochemistry & Molecular Biology

- **BME 105**
  (Strongly Recommended)
  Genetics in the Genomics Era
  **OR**

- **BIO 105**
  Genetics

**Design Elective**
- **BME 128** or **BME 140** or **BME 177**
  One course cannot be used to satisfy both the Elective and Design Elective.

**Elective**
- **BIO 115, METX 119, BIOC 100C, BME 122H, BME 128, BME 128L, BME 130, BME 132, BME 140, BME 177, BME 178, or 5-unit BME grad course(e.g. BME 230B)**

**Laboratory Courses**
- **BME 22L**
  Foundations of Design and Experimentation in Molecular Biology, Part I
  **AND**

- **BME 23L**
  Foundations of Design and Experimentation in Molecular Biology, Part II
  **OR**

- **CHEM 8L**
  Organic Chemistry Laboratory
  **AND**

- **CHEM 8M**
  Organic Chemistry Laboratory

**Physics and Electronics**
- **PHYS 5A/L**
  (6 units)
  (or **PHYS 6A/L**)
  Intro to Physics/Lab

- **BME 51A**
  Applied Electronics I

- **BME 51B**
  Applied Electronics II

**Humanities**
- **BME 80G**
  Bioethics

- **BME 185**
  (recommended)
  Technical Writing for Biomolecular Engineers
  **OR**

- **CSE 185E**
  Technical Writing for Computer Engineers

**Bioinformatics**
- **BME 110**
  Computational Biology Tools

- **BME 160**
  Research Programming in the Life Sciences

- **BME 163**
  Applied Visualization and Analysis of Scientific Data

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**Biomolecular Capstone**

*Students must complete one of the following:*
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$ Not including BME 205 or BME 230A if using Bioinformatics capstone

# Please note that BME 205 has prerequisites not required by the Biomolecular Concentration

Ψ Students may petition to substitute STAT 206 for STAT 132.

Ω CSE 20 Beginning Programming in Python is recommended for students who have never programmed.

α The thesis option consists of 12 credits of Independent Study (BME 198), Field Study (BME 193), or Senior Thesis Research (BME 195) in biomolecular engineering; and BME 123T Senior Thesis Presentation, 5 credits. Students pursuing the senior thesis option must write a two-page thesis proposal and seek approval of their project from the undergraduate director in the quarter preceding the independent study courses, typically spring quarter of the third year.

Student Name:

Staff Advisor Signature: