### BIOMEDICAL (BIOCHEMICAL)

#### FIRST YEAR

**FALL SEMESTER**
- **BME 101 or GE B**
- **WRIT 150**
- **MATH 125 (GE F)**
- **CHEM 105aL (GE E)**
- **ENGR 102**

**SPRING SEMESTER**
- **BME 101 or GE B**
- **GE A**
- **MATH 126 or MATH 129**
- **CHEM 105bL**
- **OPTIONAL ELECTIVE**

#### SECOND YEAR

**FALL SEMESTER**
- **GE C**
- **GE B**
- **MATH 226 or MATH 229**
- **PHYS 151L (GE E)**
- **OPTIONAL ELECTIVE**

**SPRING SEMESTER**
- **BISC 220L (GE D)**
- **BME 210**
- **MATH 245**
- **PHYS 152L**
- **OPTIONAL ELECTIVE**

#### THIRD YEAR

**FALL SEMESTER**
- **BISC 320L**
- **CHEM 322aL**
- **CHE 330**
- **BME 423**
- **EE 202L**

**SPRING SEMESTER**
- **GE C**
- **BME 410**
- **CHEM 322bL**
- **BISC 330L**
- **CHE 350**

#### FOURTH YEAR

**FALL SEMESTER**
- **BME 430**
- **MASC 310**
- **BME 403**
- **BME 405L**
- **WRIT 340**

**SPRING SEMESTER**
- **TECHNICAL ELECTIVE**
- **CHE 460L**
- **CHE 489**
- **CHEM 402**
- **BME 416**

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**MATHEMATICS (16 UNITS)**
- **MATH 125**: Calculus I
- **MATH 126 or 129**: Calculus II
- **MATH 226 or 229**: Calculus III
- **MATH 245**: Mathematics of Phys. and Engr.

**PHYSICS (8 UNITS)**
- **PHYS 151L**: Mechanics and Thermodynamics
- **PHYS 152L**: Electricity and Magnetism

**CHEMISTRY (16 UNITS)**
- **CHEM 105AL**: General Chemistry
- **CHEM 105BL**: General Chemistry
- **CHEM 322AL**: Organic Chemistry
- **CHEM 322BL**: Organic Chemistry

**BIOLOGY (12 UNITS)**
- **BISC 220L**: Cell Biology & Physiology
- **BISC 320L**: Molecular Biology
- **BISC 330L**: Biochemistry

**GENERAL EDUCATION (32 UNITS)**
- **GE A**: The Arts (1 Course)
- **GE B**: Humanistic Inquiry (2 Courses)
- **GE C**: Social Analysis (2 Courses)
- **GE D**: Life Sciences (1 Course)
- **GE E**: Physical Sciences (1 Course)
- **GE F**: Quantitative Reasoning (1 Course)
- **GE G, H**: Global Perspectives (2 Courses)*
- **GESM**: General Education Seminar (1 Course)*

**WRITING (7 UNITS)**
- **WRIT 150**: Writing and Critical Reasoning
- **WRIT 340**: Advanced Writing

**ENGINEERING (52 UNITS)**
- **BME 101**: Intro. to Biomedical Engineering
- **BME 210**: Biomed. Comp. Simulation Meth.
- **BME 402**: Control & Comm. in Nervous Sys.
- **BME 403**: Physiological Systems
- **BME 405L**: Senior Projects Measurements & Instrumentation
- **BME 410**: Intro. to Biomaterials & Tissue Engr.
- **BME 416**: Dev. & Reg. of Medical Products
- **BME 423**: Statistical Methods in BME
- **BME 430**: Principles & Applications of Systems Biology
- **CHE 330**: Chemical Engr. Thermodynamics
- **CHE 350**: Intro. to Separation Processes
- **CHE 460L**: Chemical Process Dynamics & Control
- **CHE 489**: Biochemical Engineering
- **EE 202L**: Linear Circuits
- **ENGR 102**: Engineering Freshman Academy
- **MASC 310L**: Materials Behavior & Processing

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**SPECIAL NOTES**

- Courses with this symbol may be satisfied with AP, IB or A-Level exams. See page 17 for more information.
- **GE**: Engineering students are encouraged to satisfy GE G and GE H with a course that also satisfies a Core Literacy. GE H may be satisfied by exam. Additionally, your GESM course should be taken in categories A, B, C, or D only. See pp. 16-17 for more information and consult your advisor for detailed assistance.

**OPTIONAL ELECTIVES**: Consult with your academic advisor to explore optional elective courses. These courses are not required.

**TECHNICAL ELECTIVE**: Any 3 units of upper division engineering coursework.