# 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
- GE A
- MATH 126 or MATH 129
- CHEM 105bL
- OPTIONAL ELECTIVE

## SECOND YEAR
### FALL SEMESTER
- BISC 220L (GE D)
- GE B
- MATH 226 or MATH 229
- PHYS 151L (GE E)
- OPTIONAL ELECTIVE

### SPRING SEMESTER
- GE C
- BME 210
- MATH 245
- PHYS 152L
- OPTIONAL ELECTIVE

## THIRD YEAR
### FALL SEMESTER
- BISC 320L
- CHEM 322aL
- CHE 330
- BME 423
- BME 430

### SPRING SEMESTER
- EE 202L
- BME 410
- CHEM 322bL
- BISC 330L
- CHE 350

## FOURTH YEAR
### FALL SEMESTER
- MASC 310
- BME 403L
- BME 405L
- WRIT 340
- BME 413

### SPRING SEMESTER
- GE C
- CHE 489
- BME 402
- BME 416
- OPTIONAL ELECTIVE

## 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 225aL: Organic Chemistry
- CHEM 225bL: 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 (55 UNITS)
- BME 101: Intro. to Biomedical Engineering
- BME 402: Control & Comm. in Nervous Sys.
- BME 403L: Physiological Systems
- BME 405L: Senior Projects Measurements & Instrumentation
- BME 410: Intro. to Biomaterials & Tissue Engnr.
- BME 413: Bioengineering Signals & Systems
- 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 489: Biochemical Engineering
- EE 502L: Linear Circuits
- ENGR 102: Engineering Freshman Academy
- MASC 310L: Materials Behavior & Processing

## 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 6 and GE 8 with a course that also satisfies a Core Literacy. GE 8 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.