# A Suggested Course Plan for: Biomedical (Electrical)

## First Year

### Fall Semester
- **BME 101 or GE B**
  - 3-4 units
- **WRIT 150**
  - 4 units
- **MATH 125 (GE F)**
  - 4 units
- **CHEM 105aL (GE E)**
  - 4 units
- **ENGR 102**
  - 2 units

### Spring Semester
- **BME 101 or GE B**
  - 3-4 units
- **GE A**
  - 4 units
- **MATH 126 or MATH 129**
  - 4 units
- **CHEM 105bL**
  - 4 units

## Second Year

### Fall Semester
- **EE 109L**
  - 3 units
- **GE C**
  - 4 units
- **MATH 226 or MATH 229**
  - 4 units
- **PHYS 151L (GE E)**
  - 4 units
- **OPTIONAL ELECTIVE**
  - 2-3 units

### Spring Semester
- **EE 209**
  - 4 units
- **BME 210**
  - 3-4 units
- **MATH 245**
  - 4 units
- **PHYS 152L**
  - 4 units
- **OPTIONAL ELECTIVE**
  - 2-3 units

## Third Year

### Fall Semester
- **EE 202L**
  - 4 units
- **MATH 445**
  - 3 units
- **BME 423**
  - 3 units
- **PHYS 153L**
  - 4 units
- **BME 425**
  - 4 units

### Spring Semester
- **FIRST TRACK COURSE: EE 338 OR 354L**
  - 3-4 units
- **BISC 220L (GE D)**
  - 4 units
- **BME 416**
  - 3 units
- **EE 301**
  - 4 units
- **WRIT 340**
  - 3 units

## Fourth Year

### Fall Semester
- **BISC 320L**
  - 4 units
- **TECHNICAL ELECTIVE OR GE 454L**
  - 4 units
- **CHEM 322aL**
  - 4 units
- **GE C**
  - 4 units
- **BME 403**
  - 4 units
- **BME 405L**
  - 4 units
- **BME 402**
  - 4 units
- **TECHNICAL ELECTIVE (IF ANALOG)**
  - 4 units
- **OPTIONAL ELECTIVE**
  - 1-2 units

### 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 Electives: 4 units of engineering course work with department approval. At least 3 units must be upper-division.

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**Mathematics (20 Units)**
- **MATH 125:** Calculus I
- **MATH 126 or 129:** Calculus II
- **MATH 226 or 229:** Calculus III
- **MATH 245:** Mathematics of Phys. and Engr. I
- **MATH 245:** Mathematics of Phys. and Engr. II

**Physics (12 Units)**
- **PHYS 151L:** Mechanics and Thermodynamics
- **PHYS 152L:** Electricity and Magnetism
- **PHYS 153L:** Optics and Modern Physics

**Chemistry (12 Units)**
- **CHEM 105AL:** General Chemistry
- **CHEM 105BL:** General Chemistry
- **CHEM 322AL:** Organic Chemistry

**Biology (8 Units)**
- **BISC 220L:** Cell Biology & Physiology
- **BISC 320L:** Molecular Biology

**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 (56 Units)**
- **BME 101:** Intro. to Biomedical Engineering
- **BME 210:** Biomed. Comp. Simulation Methods
- **BME 402:** Control & Comm. in Nerv. System
- **BME 403:** Physiological Systems
- **BME 405L:** Senior Projects Measurements & Instrumentation
- **BME 416:** Development and Regulation of Medical Products
- **BME 423:** Statistical Methods in BME
- **BME 425:** Basics of Biomedical Imaging
- **EE 109L:** Introduction to Embedded Systems
- **EE 209:** Foundations of Digital System Design
- **EE 202L:** Linear Circuits
- **EE 301L:** Linear Systems
- **DIGITAL TRACK: EE 354L:** Introduction to Digital Circuits & EE 454: Introductions to System on Chip
- **ANALOG TRACK: EE 338L:** Physical Electronics & EE 348: Electronic Circuits
- **ENGR 102:** Engineering Freshman Academy
- **TECHNICAL ELECTIVE**