**REQUIREMENTS**

Biomedical Engineering majors are required to complete a minimum of 134 credits as detailed on the Program Planning Sheet on the other side of this page. Pre-Med Majors should consult with the BU Pre-Professional Advising Office and their ENG Faculty Advisors.

**GENERAL EDUCATION**

For a list of specific courses that satisfy the Social Science, Humanities and General Education Elective, please go to the College of Engineering Undergraduate Requirements website at: [http://www.bu.edu/eng/current-students/ugrad/requirements/](http://www.bu.edu/eng/current-students/ugrad/requirements/).

**CONTINUUM & FIELDS IN BIOMEDICAL SYSTEMS ELECTIVE**

Biomedical Engineering majors complete one Continua & Fields Elective from the following:

- ENG BE 419 Principles of Continuum Mechanics & Transport
- ENG BE 420 Introduction to Solid Biomechanics
- ENG BE 435 Transport Phenomena in Living Systems
- ENG BE 436 Fundamentals of Fluid Mechanics

**PROFESSIONAL ELECTIVES**

Biomedical Engineering majors complete two Professional Electives (8 credits) from the following:

All ENG BE, EC, EK, and ME 300, 400, and 500 level courses are suitable as a professional elective (except BE 500, and courses with material that overlaps with requirements — see Notes below)

CAS CH 203, CAS CH 204 and all CAS CH 300, 400 and 500 level courses (except: CAS CH 391, 392, 401, 402, 491, 492).

All CAS PY 300, 400, and 500 level courses (except PY 371, 401, 402, 482, 491, 492).

All CAS MA 300, 400, and 500 level courses (except CAS MA 381, 401, 402).

CAS BI 206, CAS BI 216 and all CAS BI 300, 400 and 500 level courses (except BI 315, 371, 372, 391, 392)

- ENG BF 527 Applications in Bioinformatics
- CAS CH 627 RNA Structure
- QST SI 480 The Business of Technology Innovation
- ENG EK 156 Design & Manufacture
- CAS CH 629 DNA Nanotechnology
- QST SI 482 Technology & Its Commercialization
- SAR HS 360 Muscle Biology in Health & Disease

**ENGINEERING ELECTIVES**

Biomedical Engineering majors complete one Engineering Elective course from the following list:

- ENG BE 400 Biomedical Special Topics
- ENG BE 404 Advanced Controls
- ENG BE 419 Principles of Continuum Mechanics
- ENG BE 420 Intro to Solid Biomechanics
- ENG BE 435 Transport Phenomena in Living Tissues
- ENG BE 436 Fundamentals Fluid Mechanics
- ENG BE 503 Comp Methods in Biomed
- ENG BE 508 Quant Studies Resp & Card Sys
- ENG BE 511 Biomedical Instrumentation
- ENG BF 527 Application in Bioinformatics

**BIOMEDICAL ENGINEERING ELECTIVES**

Biomedical Engineering majors complete three Biomedical Engineering Electives (12 credits) from the following:

All ENG BE 400 and 500 level courses (except BE 500); BE 700 level courses may be petitioned.

ENG BF 527 Application in Bioinformatics

**BIOMEDICAL ENGINEERING DESIGN ELECTIVES**

Biomedical Engineering majors complete one Biomedical Engineering Design Elective from the following:

- ENG BE 428 Device Diagnostics & Design
- ENG BE 468 Clinical Applications of Biomedical Design

**Notes:**

For each of the following seven sets of courses, only one course can be taken for credit in each set due to the overlap of material:

1. ENG ME 403, ENG ME 404, ENG BE 402, ENG EC 402
2. ENG ME 303, ENG BE 436
3. ENG ME 501, ENG EC 501
4. ENG EK 102, ENG EK 103, CAS MA 142, CAS MA 242
5. ENG BE 401, ENG BE 403, ENG EC 401
6. ENG ME 366, ENG EC 381, ENG EK 481, ENG BE 200
7. ENG ME 460, ENG ME 560