<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Freshman 1</td>
<td>CAS MA 123</td>
<td>Calculus I</td>
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<tr>
<td></td>
<td>ENG EK 100</td>
<td>Freshman Seminar</td>
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<td>CAS CH 101</td>
<td>General Chemistry I</td>
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<tr>
<td></td>
<td>ENG EK 127/128</td>
<td>Engineering Computation/++</td>
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<td>CAS WR 100</td>
<td>Writing Seminar</td>
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<td>Freshman 2</td>
<td>CAS MA 124</td>
<td>Calculus II</td>
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<td>CAS PY 211</td>
<td>Physics I</td>
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<td></td>
<td>CAS CH 102</td>
<td>General Chemistry II</td>
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<tr>
<td></td>
<td>ENG EK 131/132</td>
<td>Intro to Engineering</td>
<td>4</td>
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<tr>
<td></td>
<td>ENG EK 102</td>
<td>Intro Linear Algebra</td>
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<td>Sophomore 1</td>
<td>CAS MA 225</td>
<td>Multivariate Calculus</td>
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<tr>
<td></td>
<td>CAS PY 212</td>
<td>Physics II</td>
<td>4</td>
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<tr>
<td></td>
<td>ENG EK 307</td>
<td>Electric Circuits</td>
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<td>EK 210</td>
<td>Intro to Engineering Design</td>
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<td>Sophomore 2</td>
<td>CAS WR 150</td>
<td>Writing &amp; Research Seminar</td>
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<tr>
<td></td>
<td>Social Science</td>
<td>Elective</td>
<td>4</td>
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</tbody>
</table>

**Study Abroad:** Students who plan to study abroad in Sophomore 2 should take EK 301 in Sophomore 1.

**BME students may waive BE 467 if student has taken or plans to take BE 428. Student must still complete 136 credits to complete BME Degree (the 2 credits are not waived). This waiver covers 2018 students (Jan/May/Sept) only.

**Graduation Requirement:**
- 136 credits
- ENG Credit Req: 48 credits/Upper Division Program courses completed at BU.

Please note, this is a model of completion for the BME undergraduate curriculum. If this model is followed, all necessary prerequisites and co-requisites should be fulfilled. However, if you choose to deviate from this model, you need to speak with your advisor to ensure you are taking everything you need in the correct order. Students majoring in Biomedical Engineering are required to complete a minimum of 136 credits as detailed on the Program Planning Sheet on the other side of this form.
REQUIREMENTS

**Design Req:** 4 credits from the design Elective list must be taken to fulfill a professional, engineering, or biomedical elective

**Pre-Med Majors:** Students should consult with the BU Pre-Professional Advising Office and their ENG Faculty Advisors

**General Education courses:** For a list of specific courses that satisfy the Social Science, Humanities, and the 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/).

CONTINUOUS AND FIELDS IN BIOMEDICAL SYSTEMS elective (4 credits required)

- ENG BE 419 Principles of Continuum Mechanics and 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 (8 credits required)

All ENG BE, EC, EK, and ME 300, 400, and 500 level courses are suitable as a professional elective.

- ENG ME 407** Cmp-Aided Des & Manufacture
- ENG ME 501** Heat Transfer
- ENG ME 305 Mechanics of Materials
- ENG ME 302 Engineering Mechanics II
- ENG ME 303 Mechanics of Materials
- ENG ME 306 Material Science
- ENG ME 309 Structural Mechanics
- ENG ME 407** Cmp-Aided Des & Manufacture

Additionally, any Biomedical Elective (below) that has not been used to satisfy the BME Elective requirement (except BF 527) may be used as an Engineering Elective.

BIOMEDICAL ENGINEERING ELECTIVES (12 credits required)

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

ENG EC 410 Introduction to Electronics, ENG BF 527 Application in Bioinformatics

DESIGN ELECTIVES (4 credits required) One of the elective choices above (Prof, ENG or BME) must include one 4-credit or two 2-credit courses from the design electives list.

**Fulfills Professional Elective:**

- ENG EK 156 Design & Manufacture
- ENG ME 359 – CAD/ Machine Components (2 cr)
- ENG ME 360 – Product Design

**Fulfills Engineering Elective:**

- ENG EC 410 – Introduction to Logic Design
- ENG EC 412 – Analog Electronics
- ENG EC 416 – Intro to Digital Signal Processing
- ENG ME 302 Engineering Mechanics II
- ENG ME 303 Mechanics of Materials

**Fulfills Biomedical Elective:**

- ENG BF 527 Applications in Bioinformatics
- ENG EC 411 – Design and Manufacture
- ENG EC 410 – Modern Active Circuit Design
- ENG EC 412 – Analog Electronics
- ENG EC 416 – Intro to Digital Signal Processing
- ENG ME 359 – Computer-Aided Design & Manufacture
- ENG ME 407** – Computer-Aided Design & Manufacture

DEGREE ENHANCEMENTS

**CONCENTRATIONS:** Students may choose to add a Concentration in Energy Technologies, Nanotechnology or Technology Innovation. Students completing a Minor in Mechanical Engineering may choose to add a concentration in Aerospace Engineering. A concentration requires 4 courses which satisfy courses within the major. Hence, a concentration can usually be completed without additional coursework. More information on concentrations and the specific requirements for each can be found at [http://www.bu.edu/eng/academics/programs/concentrations/](http://www.bu.edu/eng/academics/programs/concentrations/). Students may also pursue minors in other Colleges at Boston University. For more information, please contact the College of the minor.

**MINORS:** Students may choose to add a minor in any one of the other degree programs or divisions (Materials Science & Engineering or Systems Engineering) within the College of Engineering A minor consists of 5 courses, 2 of which may also be used to satisfy requirements for the major. Completing a minor will add a minimum of 12 credits to the total credits for the degree. More information on minors and the specific requirements for each can at [http://www.bu.edu/eng/academics/programs/minors/](http://www.bu.edu/eng/academics/programs/minors/).

**DOUBLE MAJORS:** Students may earn two engineering BS degrees. Double majors require a minimum of 168 credits and students must fulfill the requirements for each of the degree programs. See [http://www.bu.edu/eng/academics/special-programs/](http://www.bu.edu/eng/academics/special-programs/) for more details.

OTHER WAYS TO ENHANCE YOUR DEGREE

Students have several additional options available to them including study abroad, research, and co-op/internship opportunities. For more information on these programs, please visit the College of Engineering Undergraduate website: [http://www.bu.edu/eng/academics/](http://www.bu.edu/eng/academics/).

**Notes:** For the following 10 sets of courses, only 1 course can be taken for credit in each set due to the overlap of material:

1. ENG ME 305, ENG BE 420
2. ENG ME 404, ENG BE 402, ENG EC 402
3. ENG ME 303, ENG BE 436
4. ENG ME 441, ENG ME 515
5. ENG ME 501, ENG EC 501
6. ENG ME 501, ENG EC 501
7. ENG ME 501, ENG EC 501
8. ENG ME 305, ENG BE 420
9. ENG ME 404, ENG BE 402, ENG EC 402
10. ENG ME 303, ENG BE 436

4/18/17

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ENG EC 410 Introduction to Electronics, ENG BF 527 Application in Bioinformatics

**DESIGN ELECTIVES (4 credits required)** One of the elective choices above (Prof, ENG or BME) must include one 4-credit or two 2-credit courses from the design electives list.

**Fulfills Professional Elective:**

- ENG EK 156 Design & Manufacture (2 cr)
- ENG ME 359 – CAD/ Machine Components (2 cr)
- ENG ME 360 – Product Design

**Fulfills Engineering Elective:**

- ENG EC 410 – Introduction to Logic Design
- ENG EC 412 – Analog Electronics
- ENG EC 416 – Intro to Digital Signal Processing
- ENG EC 410 – Modern Active Circuit Design
- ENG ME 302 Engineering Mechanics II
- ENG ME 303 Mechanics of Materials

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- ENG ME 359 – Computer-Aided Design & Manufacture
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4/18/17