NAME: ________________________________  U.I.D.# U  DATE: ________________________

**FRESHMAN 1**
- CAS MA 123 Calculus I (4)
- ENG EK 100 Freshman Seminar (0)
- CAS MA 225 Multivariate Calculus (4)
- CAS PY 212 Physics II (4)
- ENG EK 209 Principles of Molecular Cell Biology & Biotechnology (4)

**FRESHMAN 2**
- CAS MA 124 Calculus II (4)
- CAS MA 226 Differential Equations (4)
- CAS CH 101 General Chemistry I (4)
- CAS CH 102 General Chemistry II (4)
- ENG EK 307 Electric Circuits (4)

**SOPHOMORE 1**
- ENG EK 209 Principles of Molecular Cell Biology & Biotechnology (4)
- CAS CH 101 General Chemistry I (4)
- ENG EK 307 Electric Circuits (4)
- Either Semester
- Either Semester

**SOPHOMORE 2**
- CAS MA 123 Calculus I (4)
- ENG EK 100 Freshman Seminar (0)
- CAS CH 101 General Chemistry I (4)
- CAS CH 102 General Chemistry II (4)
- ENG EK 127/128 Engineering Computation/++ (4)
- Either Semester
- Either Semester

**JUNIOR 1**
- ENG EK 209 Principles of Molecular Cell Biology & Biotechnology (4)
- ENG EK 307 Electric Circuits (4)
- Either Semester
- Either Semester

**JUNIOR 2**
- Biomedical Elective (4)
- Fields Elective ENG – BE 419, BE 420, BE 435, or BE 436 (4)
- ENG EK 401 Biomedical Measurements I (2) [Fall Only]
- ENG EK 401 Biomedical Measurements II (2) [Spring Only]
- ENG EK 402 Control Systems in Biomedical Engineering (4) [Spring Only]

**SENIOR 1**
- Engineering Elective (4)
- Professional Elective (4)
- ENG EK 401 Biomedical Measurements II (2) [Fall Only]
- ENG EK 405 Senior Project (2)
- General Education Elective (4)

**SENIOR 2**
- Biomedical Elective (4)
- Biomedical Elective (4)
- Professional Elective (4)
- ENG EK 405 Senior Project (4)

**Extra Courses**
- ( )
- ( )
- ( )
- ( )
- ( )
- ( )

**Key:**
- Math
- Natural Science
- Engineering Common
- General Education
- Biomedical Required
- Electives

**General Education Requirements Checklist**
- 1. CAS WR 100
- 2. CAS WR 150
- 3. 1 Course in Social Science
- 4. 1 Course in Humanities
- 5. 1 Course SS or HUM
- 6. 1 Course General Education Elective
- 7. Total of at least 24 credits

**Prereq. =**
**Coreq. =**

**BME 18**
2/14/06

*STUDY ABROAD: Students who plan to study abroad in Sophomore 2 should take EK 301 in Sophomore 1*

- **GRADUATION REQUIREMENT:** 136 credits
- **ENG Credit Req:** 48 credits/Upper Division Program courses completed at Boston University
- **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
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.

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/.

CONTINUUM AND FIELDS IN BIOMEDICAL SYSTEMS ELECTIVE (4 credits required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG BE 419</td>
<td>Principles of Continuum Mechanics and Transport</td>
</tr>
<tr>
<td>ENG BE 420</td>
<td>Introduction to Solid Biomechanics</td>
</tr>
<tr>
<td>ENG BE 435</td>
<td>Transport Phenomena in Living Systems</td>
</tr>
<tr>
<td>ENG BE 436</td>
<td>Fundamentals of Fluid Mechanics</td>
</tr>
</tbody>
</table>

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 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

ENGINEERING ELECTIVES (4 credits required)

- ENG EC 311 Intro to Logic Design
- ENG EC 327 Intro Software Engineering
- ENG EC 412 Analog Electronics
- ENG EC 415 Communications Systems
- ENG EC 416 Intro Digital Signal Processing
- ENG EC 450 Microprocessors
- ENG EC 455 Electromagnetic Systems I
- ENG EC 456 Electromagnetic Systems II
- ENG ME 305 Mechanics of Materials
- ENG ME 366 Material Science
- ENG ME 407** Computer-Aided Design & Manufacture

DESIGN ELECTIVES (4 credits required)

- ENG EC 311 - Introduction to Logic Design
- ENG EC 327 - Intro Software Engineering
- ENG EC 412 - Analog Electronics
- ENG EC 416 - Intro Digital Signal Processing
- ENG EC 450 - Microprocessors
- ENG EC 455 - Electromagnetic Systems I
- ENG EC 456 - Electromagnetic Systems II
- ENG ME 305 - Mechanics of Materials
- ENG ME 366 - Material Science
- 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/. 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/.

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/ 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/.

Notes: For the following 9 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 EC 102, CAS MA 142, CAS MA 242
7. ENG BE 401, ENG EC 401
8. ENG ME 366, ENG EC 381, ENG BE 200
9. ENG ME 359, ENG ME 407**

** Summer only