NAME: ____________________________ U.I.D. #  U DATE: __ __ __ __ __ __ __ __ __ __ __ __

Biomedical Engineering – 2020
Undergraduate Program Planning Sheet

FRESHMAN 1

CAS MA 123
Calculus I
(4)

ENG EK 100
Freshman Seminar
(0)

CAS CH 101
General Chemistry I
(4)

ENG EK 127
Engineering Computation/++
(4)

CAS WR 100
Writing Seminar
(4)

FRESHMAN 2

CAS MA 124
Calculus II
(4)

CAS PY 211
Physics I
(4)

CAS CH 102
General Chemistry II
(4)

ENG EK 131/132
Intro to Engineering ia

ENG EKX02
Intro Linear Algebra

SOPHOMORE 1

CAS MA 225
Multivariate Calculus
(4)

CAS PY 212
Physics II
(4)

ENG EK 307
Electric Circuits
(4)

EK 210
Intro to Engineering Design (2)

ENG BE 102
Social Science/Elective
(4)

SOPHOMORE 2

CAS MA 226
Differential Equations
(4)

ENG BE 209
Principles of Molecular Cell Biology & Biotechnology
(4)

ENG EK 301
Engineering Mechanics I
(4)

ENG BE 200
Intro to Probability
(2)

JUNIOR 1

ENG EK 424
Thermodynamics & Statistical Methods
(4)

CAS BI 315
Systems Physiology
(4)

ENG BE 491
Biomedical Measurements I
(2) [Fall Only]

ENG BE 401
Signals & Systems in Biomedical Engineering
(4) [Fall Only]

Humanities Elective
(4)

JUNIOR 2

Biomedical Elective
(4)

Fields Elective
ENG – BE 420, BE 435, or BE 436
(4)

ENG BE 492
Biomedical Measurements II
(2) [Spring Only]

ENG BE 402
Control Systems in Biomedical Engineering
(4) [Spring Only]

Social Science/Elective
(4)

SENIOR 1

Engineering Elective
(4)

Professional Elective
(4)

ENG BE 467
Product Design/Innovation
(2) [Fall Only]

ENG BE 465
Senior Project
(2)

General Education Elective
(4)

SENIOR 2

Biomedical Elective
(4)

Biomedical Elective
(4)

Professional Elective
(4)

ENG BE 466
Senior Project
(4)

Extra Courses

Extra Courses

Extra Courses

Extra Courses

*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 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 will 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 435 | Transport Phenomena in Living Systems |
| ENG BE 420 | Introduction to Solid Biomechanics | 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
- [Exceptions due to overlap of material:* BE 500, EC 381, EC 402, EK 500, ME 308, ME 403, ME 404, ME 501]
- All ENG BE 300, 400, and 500 level courses (except: ENG CH 391, 392, 401, 402, 491, 492).

MINORS:

- 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/).

ENG ME 305 – Mechanics of Materials
ENG ME 306 – Material Science
ENG ME 307 – Materials Science
ENG ME 308 – Materials Science
ENG ME 309 – Structural Mechanics
ENG ME 403 – Structural Mechanics
ENG ME 404 – Materials Science
ENG ME 501 – Material Science
ENG ME 502 – Materials Science
ENG ME 503 – Materials Science
ENG ME 504 – Materials Science
ENG ME 505 – Materials Science
ENG ME 506 – Materials Science
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ENG ME 598 – Materials Science
ENG ME 599 – Materials Science


d.B.

- (12 credits required)