

# BOSTON UNIVERSITY COLLEGE OF ENGINEERING

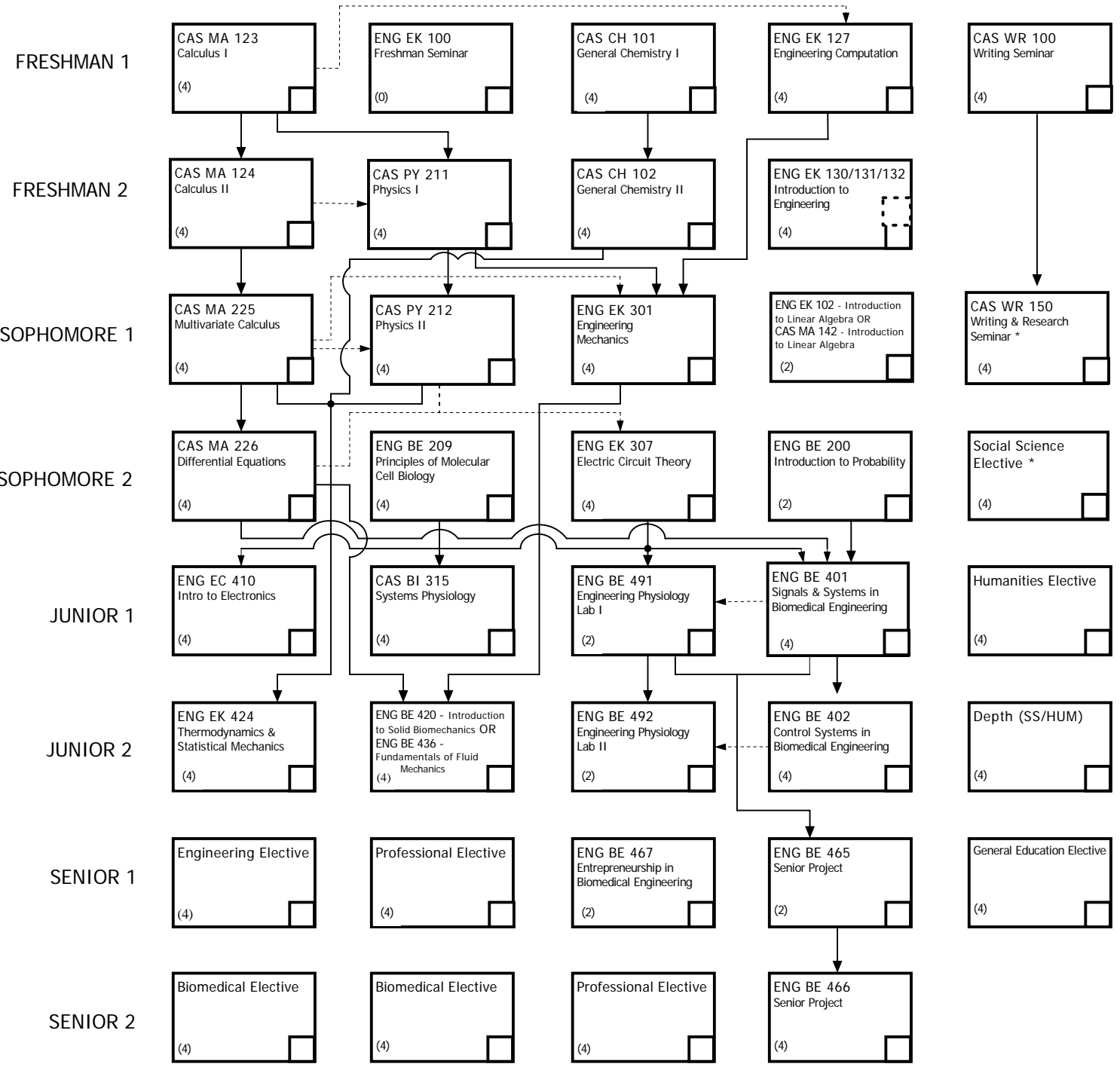
## Undergraduate Program Planning Sheet

NAME: \_\_\_\_\_

B.U.I.D.# U \_\_\_\_\_

MAJOR: BIOMEDICAL ENGINEERING 2010

DATE: \_\_\_\_\_



Extra Courses

( )	( )	( )	( )
( )	( )	( )	( )

**General Education Requirements Checklist**

- 1. CAS WR 100
- 2. CAS WR 150
- 3. 2-course depth in Soc Sci or Hum
- 4. 1 course Soc Sci or Hum (in other than Depth)
- 5. 1 course General Education Elective
- 6. Total of at least 24 credits

Prereq. = —  
Coreq. = - - - -

- GRADUATION REQUIREMENT: 136 credits**
- Residency Req:** 48 credits/Upper Division Program courses at Boston University completed within 5 years preceding graduation
- Design Req:** 4 credits from the design Elective list must be taken to fulfill a professional, engineering or biomedical elective
- \*Pre-Med Majors:** CAS CH 203 and CAS CH 204 are to be taken in lieu of WR 150 and the social science/humanities elective during the sophomore year. These courses will be taken during the junior and senior years instead. CH 203 and CH 204 will each satisfy a professional elective.

# BIOMEDICAL ENGINEERING ELECTIVES

## PROFESSIONAL ELECTIVES (8 credits required)

All ENG BE, EC, EK, and ME 300, 400, and 500 level courses are suitable as a professional elective (except BE 500 and EC 381).

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

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

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

CAS BI 206 and all CAS BI 300, 400 and 500 level courses.  
(Exceptions: CAS BI 315, 371, 372, 391, 392)

### **Additional Professional Elective Courses:**

ENG BF 527    Applications in Bioinformatics  
ENG EK 156    Design and Manufacture (2 cr)  
SAR HS 558    Ergonomics

## BIOMEDICAL ENGINEERING ELECTIVES (8 credits required)

All ENG BE 500 level courses (except BE 500).  
Students may petition BE 700 level courses

### **Additional Biomedical Engineering Elective Courses:**

ENG BE 420 \*    Introduction to Solid Biomechanics  
ENG BE 436 \*    Fundamentals of Fluid Mechanics  
ENG BF 527    Applications in Bioinformatics

\* Students must complete both BE 420 and BE 436 in order to count either one of these as a Biomedical Elective

## PRE-MEDICAL REQUIREMENTS

CAS WR 100    Writing Seminar  
CAS WR 150    Writing & Research Seminar  
CAS CH 203    Organic Chemistry (Professional Elective)  
CAS CH 204    Organic Chemistry (Professional Elective)

## ENGINEERING ELECTIVES (4 credits required)

ENG EC 311	Introduction to Logic Design
ENG EC 312	Computer Organization
ENG EC 412	Analog Electronics
ENG EC 415	Communications Systems
ENG EC 416	Introduction to Digital Signal Processing
ENG EC 450	Microprocessors
ENG EC 455	Electromagnetic Systems I
ENG EC 456	Electromagnetic Systems II
ENG EC 471	Physics of Semiconductor Devices
ENG EC 505	Stochastic Processes
ENG EK 302	Engineering Mechanics II
ENG EK 305	Mechanics of Materials
ENG EK 306	Material Science
ENG ME 309	Structural Mechanics
ENG ME 400	Engineering Mathematics
ENG ME 419	Heat Transfer
ENG ME 441	Mechanical Vibrations
ENG ME 555	MEMS: Fabrication & Materials

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

## DESIGN ELECTIVES (4 credits required)

**NOTE: One of the elective choices (BME, ENG or Professional) must include one 4 credit or two 2 credit courses from the design electives list.**

### *Fulfills Biomedical Elective*

ENG BE 511    Introduction to Biomedical Instrumentation  
ENG BE 523    Mechanics of Biomaterials

### *Fulfills Engineering Elective*

ENG EC 311    Introduction to Logic Design  
ENG EC 412    Analog Electronics  
ENG EC 416    Introduction to Digital Signal Processing

### *Fulfills Professional Elective*

ENG EK 156    Design and Manufacture (2 cr)  
ENG ME 311    Engineering Design using CAD (2 cr)  
ENG ME 312    Fundamentals Engineering Design (2 cr)  
ENG EC 580    Modern Active Circuit Design