BIOMEDICAL ENGINEERING, BS

FOUR-YEAR PLAN

FOUR-YEAR PLAN

SAMPLE FOUR-YEAR PLAN

First Year

Fall	Credits	Spring	Credits
INTEREGR 170[1]	3	INTEREGR 170[1]	3
or Liberal Studies Elective[Med]		or Liberal Studies Elective[Med]	
MATH 221	5	MATH 222	4
Communications A	3	E M A 201, PHYSICS 201, or PHYSICS 207[2]	3
CHEM 109 (or CHEM 103 and CHEM 104)	5	CHEM 343	3
		COMP SCI 200, 220, or 300[3]	3
	16		**16**

Second Year

Fall	Credits	Spring	Credits
B M E 200[4]	2	B M E 201	3
MATH 234	4	MATH 320 or 319	3
PHYSICS 202 or 208	5	E M A 303	3
Science Elective[Med]	3	Liberal Studies Elective	3
B M E 325, STAT 324, or STAT 431[3]	3	Free-General Elective Credits[Med]	2
		B M E 310[5]	3
	17		**17**

Third Year

Fall	Credits	Spring	Credits
B M E 300[4]	3	Select one of the following options:	5
Select one of the following options:	5	B M E 301 (3 cr) & Free-General Elective (2 cr)	
ZOOLOGY/ BIOLOGY 101 & ZOOLOGY/ BIOLOGY 102		ZOOLOGY/ BIOLOGY/ BOTANY 152[Med]	
ZOOLOGY/ BIOLOGY/ BOTANY 151[Med]		BIOCORE 383 & BIOCORE 384[Med]	
BIOCORE 381 & BIOCORE 382 (the first lab - 382 - is recommended not required)[Med]		Liberal Studies Elective	3
Liberal Studies Elective	3	Free-Engineering Technical Elective	2
B M E 315[5]	3	B M E/PHM SCI 430[5]	3
Area-Required Engineering Technical Elective	3	Area-Engineering Technical Elective	3
	17		**16**

Fourth Year

Fall	Credits	Spring	Credits
B M E 400	3	B M E 402[4]	3
Select one of the following options:	5	Advanced Biology/Life Science Elective	3
ANAT&PHY 335		Liberal Studies Elective[Med]	3
BIOCORE 485 & BIOCORE 486		Advanced Biomedical Engineering Technical Elective	3
Area-Engineering Technical Elective	3	Area-Engineering Technical Elective	3
Area-Engineering Technical Elective	3		
	14		**15**

Total Credits 128

FOOTNOTES

Med These courses are identified as requirements for most medical schools and are included within the 128 degree credits. Students not wishing to attend medical school may choose any of the listed options. Choosing other options will affect the total number of credits.
Medical schools have varying requirements. Liberal electives, free-general electives, and science electives can often be used to satisfy these. **Check requirements early** and start planning during your first year. For example: science elective and free elective for CHEM 345 and CHEM 344; liberal studies for psychology, sociology, English and writing; advanced life science for biochemistry; engineering technical free elective for research; and one of the recommended biology sequences (noted with Med) taken earlier than shown. A good resource is: http://prehealth.wisc.edu/.

1 INTEREGR 170 Design Practicum is required only for students directly admitted to B M E as freshmen and counts toward the 48 engineering credits. It can be taken in the fall or the spring semester.

2 It is highly recommended that students take E M A 201 Statics instead of PHYSICS 201 General Physics. E M A 201 Statics is a requisite for E M A 303 and thus taking PHYSICS 201/PHYSICS 207 General Physics alone is not recommended.

3 It is recommended that students needing additional core course options for progression take computer sciences in the first year. Additionally, STAT 324 Introduction to Statistics for Science and Engineering counts as a science core course. B M E 325 Applied Statistics for Biomedical Engineers is not a science core course, but is preferred. B M E 325 is open to first year students. MATH/STAT 431 Introduction to the Theory of Probability is only recommended for students interested in a math certificate or second major.

4 Students who are admitted late to the program and/or students who take part in another experience (such as co-op and/or study abroad), missing B M E 200 Biomedical Engineering Design or B M E 300 Biomedical Engineering Design and Leadership , or students who may graduate early missing B M E 402 Biomedical Engineering Capstone Design II on a rare approved exception, may substitute for these courses for the semester they are not in the program or at UW-Madison.

Students in these situations must still take four of the six BME design courses.
Approved substitutions include: B M E 1 Cooperative Education Program, engineering research credit, or any course numbered 200 or above additional engineering technical elective lab or design experience.
For more information on the unique design sequence see: http://bmedesign.engr.wisc.edu/about/.

5 The three core courses are all required: B M E 310 Bioinstrumentation, B M E 315 Biomechanics, B M E/PHM SCI 430 Biological Interactions with Materials, but they can be taken in any order. It is recommended that students take the one in their track of interest first, or as early as possible.