Biomedical Engineering Sample Schedule

	Total Credit Hours	Term: 1	2	3	4	5	6	7	8	9	10
Subjects Required by all Programs (53 hours)											
Mathematics 115, 116, 215, 216	16	4	4	4	4	-	-	-	-	-	-
Engineering 100, Introduction to Engineering	4	4	-	-	-	-	-	-	-	-	-
Engineering 101, Introduction to Computers	4	-	4	-	-	-	-	-	-	-	-
Chemistry 130[1]	3	3	-	-	-	-	-	-	-	-	-
Physics 140 with Lab 141; Physics 240 with Lab 241[2]	10	5	5	-	-	-	-	-	-	-	-
Intellectual Breadth	16	-	4	4	4	4	-	-	-	-	-
Advanced Science and Math (12 hours)											
Biology 172 or 174, Introduction to Biology (If using AP Bio credit (195), then Bio 173 (2) is required.)	4	-	-	-	4	-	-	-	-	-	-
Chemistry 210/211, Structure and Reactivity I and Lab	5	-	-	5	-	-	-	-	-	-	-
MCDB 310, Introduction to Biological Chemistry or BIOCHEM 415, Introduction to Biological Chemistry or Chemistry 351, Fundamentals of Biochemistry	3	-	-	-	-	-	3	-	-	-	-
Required Program Subjects (36 hours)											
BIOMEDE 211, Circuits & Systems for Biomedical Engineers	4	-	-	-	-	4	-	-	-	-	-
BIOMEDE 221, Biophysical Chemistry & Thermodynamics	4	-	-	-	-	4	-	-	-	-	-
BIOMEDE 231, Introduction to Biomechanics	4	-	-	-	4	-	-	-	-	-	-
BIOMEDE 241, Biomedical Undergraduate Lab	4	-	-	-	-	4	-	-	-	-	-
BIOMEDE 350, Introduction to Biomedical Design	3	-	-	-	-	-	3	-	-	-	-
BIOMEDE 418, Quantitative Cell Biology	3	-	-	-	-	-	3	-	-	-	-
BIOMEDE 419, Quantitative Physiology	4	-	-	-	-	-	-	4	-	-	-
BIOMEDE 450, Biomedical Design or	4	-	-	-	-	-	-	-	4	-	-
BIOMEDE 451, Biomedical Design, Part I and	2	-	-	-	-	-	-	2	-	-	-
BIOMEDE 452, Biomedical Design, Part II	3	-	-	-	-	-	-	-	3	-	-
BIOMEDE 458, Biomedical Instrumentation & Design	4	-	-	-	-	-	-	4	-	-	-
MATSCIE 250, Principles of Engineering Materials	4	-	-	4	-	-	-	-	-	-	-
Concentration Requirements and Electives[3] (14hours)	14	-	-	-	-	-	4	4	6	-	-
General Electives (11 hours)	11	-	-	-	-	-	4	4	3	-	-
Total	***128***	***16***	***17***	***17***	***16***	***16***	***17***	***16-18***	***12-13***	**-**	**-**
M.S. Biomedical Engineering											
Required Program Subjects M.S. (14-15 hours)	-	-	-	-	-	-	-	-	-	-	-
Advanced Math	3	-	-	-	-	-	-	-	-	3	-
Advanced Statistics	3	-	-	-	-	-	-	-	-	-	3
BIOMEDE 500, Seminar	1	-	-	-	-	-	-	-	-	-	1
BIOMEDE 550, Ethics & Enterprise	1	-	-	-	-	-	-	-	-	1	-
BIOMEDE 590, Directed Research(2-3)or BIOMEDE 599, Graduate Design, Part I (3) and BIOMEDE 599, Graduate Design, Part II (4)	2-7	-	-	-	-	-	-	-	-	1-3	1-4
Life Science	3	-	-	-	-	-	-	-	-	3	-
M.S. Concentration Requirements3(8 hours)	8	-	-	-	-	-	-	-	-	4	4
M.S. Total Hours	**21-26**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12-14**	**9-12**

Revised: April-18

Candidates for the Bachelor of Science in Engineering in Biomedical Engineering - B.S.E. in Biomed E. - must complete the program listed above. This sample schedule is an example of one leading to graduation in eight terms.

Notes:

[1] If you have a satisfactory score or grade in Chemistry AP, A-Level, IB Exams or transfer credit from another institution for Chemistry 130/125/126 you will have met the Chemistry Core Requirement for the College of Engineering.

[2] If you have a satisfactory score or grade in Physics AP, A-Level, IB Exams or transfer credit from another institution for Physics 140/141 and 240/241 you will have met the Physics Core Requirement for the College of Engineering.

[3] Concentration requirements and electives: A list of approved courses is available on the department website and in 1111 Gerstacker.