

**Fall 2023-2024**

**Biomedical Engineering Sample Schedule**

	<b>Credit Hours</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Subjects Required by all Programs (55 hours)</b>									
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 125/126 and 130 or Chemistry 210 and 211 <sup>1</sup>	5	5	-	-	-	-	-	-	-
Physics 140 with Lab 141; Physics 240 with Lab 241 <sup>2</sup>	10	-	5	5	-	-	-	-	-
Intellectual Breadth	16	4	-	-	4	4	4	-	-
<b>Life and Materials Science and Engineering (8 hours)</b>									
Biology 172 or 174, Introduction to Biology <sup>3</sup>	4	-	4	-	-	-	-	-	-
MATSCIE 220 or 250, Principles of Engineering Materials	4	-	-	-	-	4	-	-	-
<b>Required Program Subjects (35 hours)</b>									
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, Statistics, Computation, and Data Analysis	4	-	-	4	-	-	-	-	-
BIOMEDE 350, Introduction to Biomedical Design	4	-	-	-	-	4	-	-	-
BIOMEDE 418, Quantitative Cell Biology	3	-	-	-	-	3	-	-	-
BIOMEDE 419, Quantitative Physiology	4	-	-	-	-	-	-	4	-
BIOMEDE 450, Biomedical Design or	4	-	-	-	-	-	-	-	4
BIOMEDE 451, Biomedical Design,	3	-	-	-	-	-	-	3	-
Part I and BIOMEDE 452, Biomedical Design, Part II	3	-	-	-	-	-	-	-	3
BIOMEDE 458, Biomedical Instrumentation & Design	4	-	-	-	-	-	4	-	-
<b>Depth Requirements<sup>4</sup> (21 hours)</b>									
Engineering Expertise	12	-	-	-	-	-	-	8	4
Advanced Science, Technology, Engineering or Math	6	-	-	-	-	-	3	-	3
Experiential Elective	3	-	-	-	-	-	3	-	-
<b>General Electives (9 hours)</b>	9	-	-	-	-	-	-	3	3
<b>Total</b>	<b>128</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>17</b>	<b>15-18</b>	<b>13-14</b>

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:**

<sup>1</sup>-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.

<sup>2</sup>-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.

<sup>3</sup>- If you have a satisfactory score or grade in Biology AP, A-Level, IB Exams or transfer credit from another institution for Biology 172/174 you will have met the Biology Requirement for BME.

<sup>4</sup>-Depth requirements: A list of depth requirements and optional tracks is available on the department website and in 1111 Gerstacker.