

## Biomedical Engineering Curriculum Cell and Tissue Track

Semester 1	Lec Hrs	Lab Hrs	Cr Hrs	Semester 2	Lec Hrs	Lab Hrs	Cr Hrs
BME 100 Intro to the Profession	2	0	2	BIOL 115 Human Biology	3	0	3
CS 115 Object-oriented Program I	2	1	2	BIOL 117 Experimental Biology	0	3	1
CHEM 124 Principles of Chemistry (with lab)	3	3	4	CHEM 125 Principles of Chemistry (with lab)	3	3	4
MATH 151 Calculus I	4	1	5	MATH 152 Calculus II	4	1	5
Humanities or Social Science Elective	3	0	3	PHYS 123 General Physics I: Mechanics	3	3	4
<b>Totals</b>	<b>14</b>	<b>5</b>	<b>16</b>	<b>Totals</b>	<b>13</b>	<b>10</b>	<b>17</b>
Semester 3	Lec Hrs	Lab Hrs	Cr Hrs	Semester 4	Lec Hrs	Lab Hrs	Cr Hrs
ECE 211 Circuit Analysis I	3	0	3	BME 200 Eng. Apps of Matlab	1	3	2
MATH 252 Differential Equations	4	0	4	MATH 251 Multivariate and Vector Calculus	4	0	4
MMAE 200 Intro. to Mechanics	3	0	3	Humanities or Social Science Elective	3	0	3
Humanities or Social Science Elective	3	0	3	PHYS 221 General Physics II:	3	3	4
Humanities or Social Science Elective	3	0	3	Humanities or Social Science Elective	3	0	3
<b>Totals</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>Totals</b>	<b>14</b>	<b>6</b>	<b>16</b>
Semester 5	Lec Hrs	Lab Hrs	Cr Hrs	Semester 6	Lec Hrs	Lab Hrs	Cr Hrs
BME 315 Instrumentation Lab	1	3	2	BME 301 BioFluid Mechanics	3	0	3
BME 330 Analysis of Biosignals and Systems	3	0	3	BME 310 Biomaterials	3	0	3
CHE 202 Material and Energy Balances	2	2	3	BME 320 Biofluids Laboratory	0	3	1
CHEM 237 Organic Chemistry I	3	4	4	BME 335 Thermo. of Living systems	3	0	3
BME 433 BME Applications of Statistics	3	0	3	BME Elective**	3	0	3
IPRO I Interprofessional Project I	1	6	3	CHEM 239 Organic Chemistry II	3	0	3
<b>Totals</b>	<b>13</b>	<b>15</b>	<b>18</b>	<b>Totals</b>	<b>15</b>	<b>3</b>	<b>16</b>
Semester 7	Lec Hrs	Lab Hrs	Cr Hrs	Semester 8	Lec Hrs	Lab Hrs	Cr Hrs
BME 453 Quantitative Physiology	3	0	3	BME 420 Design Concepts in BME	3	0	3
BME 405 Physiology Laboratory	1	3	2	BME 490 Senior Seminar	1	0	1
BME 418 Reaction Kinetics	3	0	3	BME Elective**	3	0	3
BME 419 Intro. to Design	2	0	2	IPRO 2 Interprofessional Project II	1	6	3
BME 482 Mass Transport for BME	3	0	3	BME 424 Quant Aspects of CT Engr	3	0	3
Humanities or Social Science Elective	3	0	3	Humanities or Social Science Elective	3	0	3
<b>Totals</b>	<b>15</b>	<b>3</b>	<b>16</b>	<b>Totals</b>	<b>14</b>	<b>6</b>	<b>16</b>

\*\*BME elective must be an approved course in BME, CAE, CHE, CS, ECE, ENGR, or MMAE