

## B.S. Bioengineering Premed Curriculum

### Freshman Year

First Semester			Lec	Lab	C	Second Semester			Lec	Lab	C
ENL	101	Critical Writing & Reading I	3	0	3	ENL	102	Critical Writing & Reading I	3	0	3
CHM	151	Principles Modern Chem. I	3	0	3	CHM	152	Principles Modern Chem. II	3	0	3
CHM	161	Intro. to Applied Chem. II	1	2	1	CHM	162	Intro. to Applied Chem. II	1	2	1
BNG	101	Intro. to Bioengineering	2	3	3	MTH	154	Analytical Geom. & Calc. II	4	0	4
MTH	153	Analytical Geom. & Calc. I	4	0	4	PHY	111	Physics for Appl Sci & Eng I	3	2	4
EGR	111	Intro Appl. Sci. Engr. I	3	2	3						<b>15</b>
					<b>17</b>						

### Sophomore Year

First Semester			Lec	Lab	C	Second Semester			Lec	Lab	C
EGR	241	Engin. Mechanics: Statics	3	0	3	BNG	232	Funda. Engi. Bio. Lab	0	3	1
ENL	266	Technical Communication	3	0	3	BNG	255	Biology for Engineers	3	0	3
MTH	213	Analytical Geom. & Calc. III	4	0	4	MTH	212	Diff. Eq.	3	0	3
PHY	112	Physics for Appl Sci & Eng II	3	2	4	BNG	220	Biochem. Thermodynamics	3	0	3
Univ.	St.		3	0	3	ECE	201	Circuit Theory I	3	1.5	3.5
						Univ.	St.		3	0	3
					<b>17</b>						<b>16.5</b>

### Junior Year

First Semester			Lec	Lab	C	Second Semester			Lec	Lab	C
BNG	311	Statistics for Bioengineer	3	0	3	BNG	312	Biotransport	3	0	3
BNG	318	Biomeasurement & Control	2	3	3	BNG	315	Biomechanics	3	0	3
BNG	320	Biomeasurement Laboratory	0	3	1	BNG	317	Biomechanics Laboratory	0	3	1
BNG	321	Quant. Anatomy Physiol Dsgn	3	0	3	BNG	316	Biomaterials	3	0	3
BNG	322	Quant. Physiology Lab	0	3	1	CHM	252	Organic Chemistry II	3	0	3
CHM	251	Organic Chemistry I	3	0	3	CHM	264	Bio-Organic Chem. Lab II	1	3	1
CHM	263	Bio-Organic Chem. Lab I	1	3	1	Univ.	St.		3	0	3
					<b>15</b>						<b>17</b>

### Senior Year

First Semester			Lec	Lab	C	Second Semester			Lec	Lab	C
EGR	497	Bioeng. Capstone Design I	1	2	2	EGR	498	Bioeng. Capstone Design II	1	2	2
BNG	411	Bioengineering Lab	2	3	3	BNG	423	Biosystems Analysis & Dsgn.	3	1.5	3.5
		Specialization	3	0	3			Specialization	3	0	3
		Specialization	3	0	3			Specialization	3	0	3
Univ.	St.		3	0	3	Univ.	St.		3	0	3
					<b>14</b>						<b>14.5</b>

Total Credits = 126

Lec = Lecture (hours)

Lab = Lab (hours)

C = Number of Credits

University Studies Requirements (Univ. St.)

Cluster 3 The Cultural World

a) Literature 3 credits

b) Visual and performing Arts 3 credits

Cluster 4 The Social World

a) Human Questions and Contexts 3 credits

b) The Nature of US Society 3 credits

c) The Nature of Global Society 3 credits

**Premed Track** students should consider Cell Biology, Biochemistry and Psychology as their Specialization courses. CHM 411 Biochemistry I is strongly recommended.