

BIOMEDICAL ENGINEERING - Class of 2015

Total Credits = **122 -123**

Freshman Year *Fall* Semester

Course Code	Description	Cr	
CHM 101	General Chemistry Lec I [GE-N]	3	
CHM 102	General Chemistry I Lab	1	
ECN 201	Principles of Microeconomics [GE-S]	3	
EGR 105	Foundations of Engineering I	1	
MTH 141	Intro Calculus with Analytic Geom [GE-MQ]	4	
PHY 203	Elementary Physics I [GE-N]	3	
PHY 273	Elementary Physics Lab I [GE-N]	1	
		16	

Freshman Year *Spring* Semester

Course Code	Description	Cr	
BME 181	Biomedical Engineering Seminar I	1	
CHM 124	Intro to Organic Chemistry	3	
EGR 106	Foundations of Engineering II	2	
MTH 142	Intermed Calc with Analytic Geom [GE-MQ]	4	
PHY 204	Elementary Physics II [GE-N]	3	
PHY 274	Elementary Physics Lab II [GE-N]	1	
		General Education Elective*	3
		17	

Sophomore Year *Fall* Semester

Course Code	Description	Cr	
BIO 121	Human Anatomy	4	
BME 281	Biomedical Engineering Seminar II	1	
ELE 201	Digital Circuits Design	3	
ELE 202	Digital Circuits Design Lab	1	
MTH 362	Advanced Engineering Mathematics I	3	
		General Education Elective*	3
		15	

Sophomore Year *Spring* Semester

Course Code	Description	Cr	
BIO 242	Intro Human Physiology	3	
BIO 244	Intro Human Physiology Lab	1	
BME 207	Intro to Biomedical Engineering	3	
ELE 212	Linear Circuit Theory	3	
ELE 215	Linear Circuits Lab	2	
MTH 243	Calculus for Functions of Several Vars	3	
		15	

Junior Year *Fall* Semester

Course Code	Description	Cr	
BIO 341	Principles of Cell Biology	3	
BME 307	Bioelectricity	3	
ELE 313	Linear Systems	3	
ELE 338	Electronics I	3	
ELE 339	Electronics I Lab	1	
		General Education Elective*	3
		16	

Junior Year *Spring* Semester

Course Code	Description	Cr	
BME 360	Biomeasurement	3	
BME 361	Biomeasurement Lab	1	
ELE 314	Linear Systems and Signals	3	
ISE 411 <i>or</i> STA 409	Probability and Statistics for Engineers <i>or</i> Statistical Methods in Research I	3	
		General Education Elective*	3
		Free Elective	3
		16	

Senior Year *Fall* Semester

Course Code	Description	Cr	
BME 461	Physiological Modeling and Control	3	
BME 464	Medical Imaging	3	
BME 465	Medical Image Processing Lab	1	
BME 484	BME Capstone Design I	2	
ELE 400	Intro to Professional Practice	1	
		Technical Elective**	3-4
		13 -14	

Senior Year *Spring* Semester

Course Code	Description	Cr	
BME 462	Biomedical Instrumentation	3	
BME 468	Neural Engineering	3	
BME 485	BME Capstone Design II	2	
		General Education Elective*	3
		General Education Elective*	3
		14	

* Note the following *specific* requirements and restrictions for General Education [GE] electives:

-Refer to *specific* Biomedical Engineering General Education *course requirements* (see 2015 BME Check Sheet).

Note the following *specific* requirements and restrictions for General Education [GE] electives:

-[GE-EC/ECw] *Must* take at least *six (6)* credits in General Education [GE-EC/ECw], with at least *one (1)* course in *writing* [GE-ECw].

-[GE-ECw] Can only take *one (1)* of the following **100-level** writing courses for General Education credit [GE-ECw]: WRT 104, WRT 105, WRT 106.

** **Technical Elective** may be chosen from the following: CHE 333, 347, 574; CSC 522; EGR 377; ELE 322, 343/344, 435/436, 437, 438, 444/445, 447/448, 458/459, 501, 506; HPR 323; ISE 404, 412; MCE 341, 354, 372; MTH 442, 451, 462, 471.

