Biomedical Engineering (suggested premed curriculum)

1st YEAR	Session	Course	BME Curriculum	SH	Pre-Requisite or Co-Requisite
	F/S	22M:031	Engineering Math I – Single Variable Calculus	4	P: H.S. Algebra & Trigonometry
Fall	F	059:005	Engineering Problem Solving I	3	
Semester	All	004:011	Principles of Chemistry I	4	
	All	010:003	Accelerated Rhetoric (or 010:001 & 010:002)	4	
	F	059:090	First-Year Engineering Seminar	1	First semester standing
			Total	**16**	
	F/S	22M:032	Engineering Math II – Multivariable Calculus	4	P: 22M:031
Spring	S	059:006	Engineering Problem Solving II	3	C: 22M:031
Semester	F/S	029:081	Introductory Physics I	4	C: 22M:031
	All	22M:033	Engineering Math III – Matrix Algebra	2	C: 22M:032
	All	004:012	Principles of Chemistry II	4	P: 004:011
	S	051:090	Biomedical Engineering First Year Forum	0	First year Standing
2nd YEAR			**Total**	**17**	
	All	22M:034	Engineering Math IV – Differential Equations	3	P: 22M:032 and 22M:033
Fall	F	002:010	Principles of Biology I	4	P: 004:011
Semester	All	059:007	Engineering Fundamentals I – Statics	2	P: 22M:031; C: 029:081, 22M:032
	F/S	059:008	Engineering Fundamentals II – Electrical Circuits	3	C: 22M:034
	All	059:009	Engineering Fundamentals III – Thermodynamics	3	P: 004:011, 029:081; C: 22M:032
	F/S	051:091	Professional Seminar: Biomedical Engineering	0	Sophomore Status
			Total	**15**	
	S	051:030	Cell Biology for Engineers	2	P: 002:010; C: 027:130 & 051:130
Spring	All		General Education Component #1	3	
Semester	F/S	002:011	Principles of Biology II (EFA #1)	4	P: 002:010
	S	051:130	Cell Biology for Engineering Lab	1	C: 027:130, 051:030
	F/S	027:130	Human Physiology	3	P: 002:010, 004:012
	All	004:121	Organic Chemistry I (EFA #2)	4	P: 004:012
	F/S	051:091	Professional Seminar: Biomedical Engineering	0	Sophomore Status
3rd YEAR			**Total**	**17**	
	F	051:040	Biological Systems Analysis	3	P: 51:030, 22M:034 C:57:017
Fall	All	004:122	Organic Chemistry II (EFA #3)	3	P: 004:121
Semester	All	057:019	Mechanics of Deformable Bodies	3	P: 059:007, C:22M:034
	All	004:141	Organic Chemistry Lab (EFA #4)	3	C: 004:122
	F/S	057:017	Computers in Engineering	3	P: 059:006, sophomore standing
	All		General Education Component #2	3	
	F/S	051:091	Professional Seminar: Biomedical Engineering	0	Sophomore Status or higher
			Total	**18**	
	S	099:110	Biochemistry (EFA #5)	3	
Spring	F/S	029:082	Introductory Physics II (with lab)	4	P: 029:081, C: 22M:032
Semester	S		EFA Elective #6	3	
	S	051:060	Data and Image Acquisition and Analysis	4	P: 057:017, 059:008, 051:040; C:051:080
	S	051:080	Data Acquisition Design Laboratory	2	C: 051:060
	F/S	051:091	Biomedical Engineering Seminar	0	Sophomore Status or higher
4th YEAR			**Total**	**16**	
	F	051:085	Biomedical Engineering Senior Design	4	P 051:075, 051:080, 051:050, Senior standing
Fall	F/S	171:161	Biostatistics	3	P: 22M:032
Semester	F	051:050	Biomechanics : Theory and Design	3	P: 057:019, 027:130
	F	051:070	Biomaterials and Implant Design	3	P: 057:019
	All		General Educations Component #3	3	
	F	051:092	Leadership and Resourcefulness	0	
			Total	**16**	
	S	051:086	Biomedical Engineering Senior Design	4	P: 051:085, Senior Status
Spring	All		General Education Component #4	3	
Semester	F/S	051:075	Cell Material Interaction	3	P:027:130, 051:030; C:051:070
	F/S		EFA Elective #7	3	At least one EFA is technical
	All		General Education Component #5	3	
			Total	**16**	