

**Curriculum Checklist - Effective Summer 2018 and Prior**

**Program Total Credits = 158 or 159**

1 <sup>st</sup> Year Fall				1 <sup>st</sup> Year Spring			
COURSE	NAME (PREREQS)	TERM*	CR	COURSE	NAME (PREREQS)	TERM*	CR
BIOM 101	Introduction to Biomedical Engineering	F	3	ECE 103	DC Circuit Analysis (MATH 160)	F, S	3
CHEM 111	General Chemistry I (MATH 118 or 141 or 155 or 160 or 161 or 229 or 261)	F, S, SS	4	LIFE 102	Attributes of Living Systems	F, S, SS	4
CHEM 112	General Chem Lab I (CHEM 111 or 117 or conc.)	F, S, SS	1	MATH 161	Calculus for Physical Scientists II (MATH 124; MATH 159 or 160)	F, S, SS	4
MATH 160	Calculus for Physical Scientists I (MATH 124 (B or better); MATH 126 (B or better))	F, S, SS	4	PH 141*	Physics for Scientists and Engineers I (MATH 126 or conc.; MATH 155 or 159 or 160 or conc.)	F, S, SS	5
ECE 102	Digital Circuit Logic	F, S	4				
<b>Total 16</b>				<b>Total 16</b>			

2nd Year Fall				2nd Year Spring			
CO 150	College Composition (CO 130 or placement by ACT/SAT or DSP Survey or Challenge Exam)	F, S, SS	3	ECE 202	Circuit Theory Applications (ECE 103, MATH 161)	S,SS	4
CS 163 OR CS 164 OR CS155, CS156, CS157	Java (CS1) No Prior Programming (MATH 124) OR Java (CS1) Prior Programming (MATH 124) OR Unix and C Programming I (CS 155 or conc.; MATH 118) & II (CS 156 or conc.; MATH 118)	F,S	4 or 3	ECE / STAT 303	Introduction to Communication Principles (MATH 261; MATH 340 or 345 or conc.)	S	3
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	MATH 340	Introduction to Ordinary Differential Equations (MATH 255 or 261) -- OR -- Differential Equations (MATH 229 or MATH 369; MATH 255 or MATH 261)	F, S, SS	4
PH 142	Physics for Scientists and Engineers II (PH 141; MATH 161 or 255 or 271 or conc.)	F,S	5	PH 314	Introduction to Modern Physics ( PH 142; MATH 261 or conc.)	S	4
<b>Total 15 or 16</b>				<b>Total 15</b>			

3rd Year Fall				3rd Year Spring			
ECE 311	Linear Systems Analysis I (ECE 202; MATH 340 or 345; ECE 331 or conc.; ECE 341 or ECE 451 or conc.)	F	3	BIOM 300	Problem-Based Learning BME Lab (BIOM 101 or BIOM 200 or (BIOM 100; CBE 205; MECH 262); MATH 340 or 345)	S	4
ECE 331	Electronics Principles I (ECE 202; MATH 340 or 345; PH142; ECE 311 or conc.; ECE 341 or ECE 451 or conc.)	F	4	BMS 300	Principles of Human Physiology (BZ 101 or 110 or LIFE 102; CHEM 103 or 107 or 111)	F, S, SS	4
ECE 341	Electromagnetics Fields and Devices I (ECE 202; MATH 340 or 345; PH 142; ECE 311 or conc.; ECE 331 or conc.)	F	3	ECE 332	Electronics Principles II (ECE 331)	S	4
LIFE 210	Introductory Eukaryotic Cell Biology (LIFE 102; CHEM 111; CHEM 112)	F	3	ECE 342	Electromagnetic Fields and Devices II (ECE 341)	S	3
AUCC		F, S, SS	3				
<b>Total 16</b>				<b>Total 15</b>			

4th Year Fall				4th Year Spring			
CHEM 113	Gen Chem II (CHEM 107 or 111 or 117; MATH 124 or MATH 141, 155, 160, 161, 229, 261 or conc.)	F, S, SS	3	BIOM 431	Biomedical Signal and Image Processing (ECE 303; ECE 311; PH 142)	S	3
ECE 404	Experimental Optical Electronics (conc. w/ ECE 441)	F	2	CHEM 245	Fundamentals of Organic Chem. (CHEM 107 or 113)	F, S, SS	4
ECE 441	Optical Electronics (ECE 342)	F	3	ECE 457	Fourier Optics (ECE 311; ECE 342)	S	3
MECH 337	Thermodynamics (MATH 261; PH 141)	F, S	4	MECH 262	Engineering Mechanics (MATH 161; PH 141)	S	4
PH 353	Optics and Waves (PH 142; MATH 261)	F	4	ECON 202 (AUCC 3C)	Principles of Microeconomics (MATH 117 or 118 or 141 or 155 or 160)	F, S, SS	3
<b>Total 12</b>				<b>Total 17</b>			

5th Year Fall				5th Year Spring			
BIOM 486A	Biomedical Design Practicum: Capstone Design I (BIOM 300; (BIOM 421; CBE 320; CBE 442) or (BIOM 431; ECE 311; ECE 332; ECE 342) or (BIOM 441; MECH 301; MECH 307)	F	4	BIOM 486B	Biomedical Design Practicum: Capstone Design II (BIOM 486A; (CBE 451) or (ECE 312) or (MECH 325; MECH 344; MECH 402) or (PH 353).	S	4
ECE-TE*	ECE Technical Elective _____		3	ECE-TE*	ECE Technical Elective _____		3
ECE-TE*	ECE Technical Elective _____		3	AUCC		F, S, SS	3
PH 451	Introductory Quantum Mechanics I (PH 314; MATH 340 or 345)	F	3	AUCC		F, S, SS	3
CO 301B OR JTC 300	Writing in the Disciplines: Sciences OR Professional & Technical Communication (CO 150 or HONR 193)	F, S, SS	3	AUCC		F, S, SS	3
<b>Total 16</b>				<b>Total 16</b>			

\* - All course prerequisites for 100-, 200-, 300- and 400-level required ECE courses must be completed with a C or better

**Please note that curricula can change; be sure to check with your advisers regularly to ensure you are on track.**

Additional All University Core Courses (AUCCs)	
6 cr - 3B Arts and Humanities:	_____
3 cr - 3C Social/Behavioral Science:	ECON 202
3 cr - 3D Historical Perspective:	_____
3 cr - 3E Global/Cultural Awareness:	_____

Key:	
"conc." = concurrent enrollment	*Term: F = Fall, S = Spring, SS = Summer Session
Grey indicates Biomedical Engineering courses	
Light green indicates labs	
Red indicates exceptionally time-consuming/difficult courses	
Must have at least a "C" in BOLDED courses	