

**Curriculum Check Sheet**  
**Biomedical Engineering AND Electrical Engineering**  
**Lasers and Optics**

158 Credits

Name: \_\_\_\_\_

**\*\*Advisers, pls use advising sections on back**

**First Year – 31 Credits – Courses (prereqs) Cr FA SP**

			Cr	FA	SP
BIOM 101	Intro to Biomedical Engineering	F	3		
ECE102	Digital Circuit Logic	F	4		
MATH160	Calculus for Physical Scientists I (MATH 124, 126)	F,S,SS	4		
CHEM111	General Chemistry I (MATH 118 or 124 or 155 or 160 or 161 or 229 or 261)	F,S,SS	4		
CHEM112	General Chemistry Lab I (CHEM 111 conc. or CHEM 117 conc.)	F,S,SS	1		
ECE103	DC Circuit Analysis (MATH 160)	S	3		
MATH161	Calculus for Physical Scientists II (MATH 124 or 126)	F,S,SS	4		
PH141	Physics for Scientists and Engineers I (MATH 126 and 155 or 160)	F,S,SS	5		
CHEM113	General Chemistry II (CHEM 107 or 111 or 117; MATH 124 or 141 or MATH 155 (or conc.) or MATH 160 (or conc.) or MATH 161 (or conc.) or MATH 229 (or conc.) or MATH 261 (or conc.)	F,S,SS	3		

**Third Year – 32 Credits Cr FA SP**

			Cr	FA	SP
ECE311	Linear Systems Analysis I (ECE 202; MATH 340 or MATH 345)	F	3		
ECE341	Electromag. Fields and Devices I (PH 142; MATH 340 or MATH 345)	F	3		
MECH337	Thermodyn. (MATH 261; PH 141)	F,S	4		
LIFE210	Intro to Eukaryotic Cell Bio (CHEM 111, 112 (or conc.); LIFE 102)	F,S	3		
PH 353	Optics and Waves (MATH 261; PH 142)	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		
ECE342	Electromag. Fields and Devices II (ECE 341)	S	3		
CHEM245	Fundamentals of Organic Chemistry (CHEM 107 or CHEM 113)	F,S,SS	4		
PH 314	Intro to Modern Physics (MATH 261 (or conc.); PH 142)	S	4		

**Second Year – 31 Credits Cr FA SP**

			Cr	FA	SP
MATH261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4		
CO150	College Composition (CO 130 or SAT vrb1/critcl reading score 600, or ACT English score 26)	F,S,SS	3		
PH142	Physics for Scientists and Engineers II (MATH 161 (or conc.) or MATH 255 (or conc.); PH 141)	F, S	5		
CS155 OR CS156, CS157	CS155 OR Unix, CS 156, CI, CS 157, CII	F,S	3		
ECE202	Circuit Theory Appl. (ECE 103)	S,SS	4		
MATH345 OR MATH340	Differential Equations --OR-- Intro to Ordinary Differential Equations	F,S,SS	4		
CIVE262	Engineering Mechanics* (MATH 161; PH 141)	S	4		
LIFE 102	Attributes of Living Systems	F,S,SS	4		

**Fourth Year – 32 Credits Cr FA SP**

			Cr	FA	SP
ECE/STAT303	Intro to Communication Principles (MATH 261; ECE 311(or conc.))	F	3		
ECE331	Electronics Principles I (ECE 202; MATH 340 or 345)	F	4		
ECE/BIOM 4XX*	ECE Gateway course (*Pending approval)		3		
ECE441	Optical Electronics (ECE 342)	F	3		
ECE 404	Experimental Optical Electronics (Conc. ECE 441)	F	2		
BIOM 300	Problem-Based Learning BME Lab (BIOM 101; MATH 340)	S	4		
ECE332	Electronics Principles II (ECE 331; MATH 340 or 345)	S	4		
ECE 457	Fourier Optics (ECE 312; 342)	F	3		
ECON 202	Microeconomics (MATH 117 or 118 or 141 or 155 or 160)	F,S,SS	3		
AUCC			3		

**Fifth Year - 32 Credits Cr FA SP**

			Cr	FA	SP
BIOM486A	Capstone Design Pract I (BIOM 300; 330 or 441 or ECE 441)	F	4		
ECE/BIOM	Technical Electives		6		
CO301B	Writing in the Disciplines-Sci. -- OR - - JTC 300 Profess. & Tech. Comm. (CO 150 or HONR 193)	F,S,SS	3		
PH 451	Intro to Quantum Mech. I	F	3		
BIOM486B	Capstone Design Practicum II	S	4		
ECE/BIOM	Technical Elective		3		
AUCC			9		

**Additional AUCC**

**3B Arts and Humanities** 6 \_\_\_\_\_  
**3C Social/Behavioral Science** 3 **ECON 202** \_\_\_\_\_  
**3D Historical Perspective** 3 \_\_\_\_\_  
**3E Global/Cultural Awareness** 3 \_\_\_\_\_

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