

Biomedical Engineering and Electrical Engineering

Name: _____

Curriculum Checksheet - Effective Fall 2018 And After

Program Total Credits = 158

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR	COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Fall				1st Year Spring			
BIOM 100	Overview of Biomedical Engineering	F	1	CHEM 112	General Chemistry Lab I (CHEM 111 or 117 or conc.)	F, S, SS	1
CHEM 111	General Chemistry I (MATH 118 or 141 or 155 or 160 or 161 or 229 or 261; CHEM 105 or an appropriate score in the chemistry preparation module)	F, S, SS	4	ECE 103	DC Circuit Analysis (MATH 160)	F, S	3
CO 150	College Composition (CO 130 or placement by ACT/SAT or DSP Survey or Challenge Exam)	F, S, SS	3	LIFE 102	Attributes of Living Systems	F, S, SS	4
ECE 102	Digital Circuit Logic	F, S	4	MATH 161	Calculus for Physical Scientists II (MATH 124; MATH 159 or F, S, SS 160)	F, S, SS	4
MATH 160	Calculus for Physical Scientists I (MATH 124 and 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
			Total				Total
			16				17
2nd Year Fall				2nd Year Spring			
BIOM 200	Fundamentals of Biomedical Engineering (BIOM 100 or conc.; LIFE 102; MATH 160)	F	2	ECE 202	Circuit Theory Applications (ECE 103, MATH 161)	S, SS	4
(CS 163 OR CS 164) or (CS 152 and (MATH 151 or STAT 158))	Java (CS1) No Prior Programming (MATH 124) OR Java (CS1) Prior Programming (MATH 124) OR Intro to Python Programming (MATH 118, 124, 125, 126, 141, 155, 157, 159, 160) and Mathematical Algorithms in Matlab (MATH 141, 155, 160) or Intro to "R" Programming	F,S	4	ECE 232			1
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	ECE / STAT 303	Introduction to Communication Principles (MATH 261 ; MATH 340 or conc.)	S	3
PH 142*	Physics for Scientists and Engineers II (PH 141; MATH 161 or 255 or 271 or conc.)	F,S	5	MATH 340	Introduction to Ordinary Differential Equations (MATH 255 or 261)	F, S, SS	4
			Total				Total
			14-15				16
3rd Year Fall				3rd Year Spring			
ECE 311	Linear Systems Analysis I (ECE 202; MATH 340; 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)	S	4
ECE 331	Electronics Principles I (ECE 202; MATH 340; PH142 ; ECE 311 or conc.; ECE 341 or ECE 451 or conc.)	F	4	ECE 312	Linear Systems Analysis II (ECE 311)	S	3
ECE 341	Electromagnetics Fields and Devices I (ECE 202; MATH 340; PH 142 ; ECE 311 or conc.; ECE 331 or conc.)	F	3	ECE 332	Electronics Principles II (ECE 331)	S	4
BME BE	BME Broad Elective	F, S, SS	3	ECE 342	Electromagnetic Fields and Devices II (ECE 341)	S	3
AUCC		F, S, SS	3				
			Total				Total
			16				14
4th Year Fall				4th Year Spring			
BMS 300	Principles of Human Physiology (BZ 101 or 110 or LIFE 102; CHEM 103 or 107 or 111)	F, S, SS	4	BIOM 431	Biomedical Signal and Image Processing (ECE 303; ECE 311; PH 142)	S	3
CHEM 113	General Chemistry II (CHEM 107 or 111 or 117; MATH 124 or MATH 141, 155, 160, 161, 229, 261 or conc.)	F, S, SS	3	CHEM 245	Fundamentals of Organic Chemistry (CHEM 107 or 113)	F, S, SS	4
ECE 251	Introduction to Microprocessors (ECE 102)	F	4	MECH 337	Thermodynamics (MATH 261; PH 141)	F, S	4
ECE-TE	ECE Technical Elective _____	F, S, SS	3	ECE-TE	ECE Technical Elective _____		3
AUCC		F, S, SS	3	ECON 202 (AUCC 3C)	Principles of Microeconomics (MATH 117 or 118 or 141 or 155 or 160)	F, S, SS	3
			Total				Total
			17				17
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) or (PH 353).	S	4
BME-TE	BME Technical Elective _____	F, S, SS	3	BME-TE	BME Technical Elective _____	F, S, SS	3
ECE-TE	ECE Technical Elective _____	F, S, SS	3	ECE-TE	ECE Technical Elective _____	F, S, SS	4
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	2
AUCC		F, S, SS	3				
			Total				Total
			16				14

* - All course prerequisites for required undergraduate ECE courses must be completed with a C or better

Please note that curricula can change; be sure to check DARS/Degree Audit and with your advisors 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 Diversity/Global 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