

Curriculum Checklist - Effective Summer 2018 and Prior

Program Total Credits = 158

COURSE	NAME (PREREQS)	TERM*	CR	COURSE	NAME (PREREQS)	TERM*	CR
<b>1<sup>st</sup> Year Fall</b>				<b>1<sup>st</sup> Year Spring</b>			
BIOM 101	Introduction to Biomedical Engineering	F	3	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
CBE 101	Chem and Biological Engineering I (CBE 160 or conc.)	F,S	3	LIFE 102	Attributes of Living Systems	F, S, SS	4
CBE 160	MATLAB for Chemical and Biological Engineers	F, S	1	MATH 161	Calc for Physical Sci II (MATH 124; MATH 159 or 160)	F, S, SS	4
CHEM 111	General Chemistry I (MATH 118 or 141 or 155 or 160 or 161 or 229 or 261)	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
CHEM 112	General Chem Lab I (CHEM 111 or 117 or conc.)	F, S, SS	1				
MATH160	Calculus for Physical Scientists I (MATH 124 (B or better); MATH 126 (B or better))	F, S, SS	4				
<b>Total 16</b>				<b>Total 16</b>			
<b>2nd Year Fall</b>				<b>2nd Year Spring</b>			
CBE 201	Material and Energy Balances (CBE 101 or 160 or MATH 151 or conc.; CHEM 111; LIFE 102 or conc.; PH 141 or conc.)	F	3	CBE 210	Thermodynamic Process Analysis (CBE 201; MATH 261 or conc.)	S	3
CBE 205	Introduction to Biological Engineering (CBE 101; CBE 160; LIFE 102)	F	3	MATH 340	Introduction to Ordinary Differential Equations (MATH 255 or 261)	F, S, SS	4
CHEM 341	Modern Organic Chemistry I (CHEM 113)	F, S, SS	3	CHEM 343	Modern Organic Chem II (CHEM 245 or 341 or 345)	F, S, SS	3
CHEM 114	General Chemistry Lab II (CHEM 112; CHEM 113 or conc.)	F, S, SS	1	CHEM 344	Modern Organic Chemistry Laboratory (CHEM 114; CHEM343 or conc)	F, S, SS	2
CO 150	College Composition (CO 130 or placement by ACT/SAT or DSP Survey or Challenge Exam)	F, S, SS	3	PH 142	Physics for Scientists and Engineers II (PH 141; MATH 161 or 255 or 271 or conc.)	F, S	5
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4				
<b>Total 17</b>				<b>Total 17</b>			
<b>3rd Year Fall</b>				<b>3rd Year Spring</b>			
BMS 300	Principles of Human Physiology (BZ 101 or 110 or LIFE 102; CHEM 103 or 107 or 111)	F, S, SS	4	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
CBE 310*	Molecular Concepts and Applications (CBE 210; MATH 340)	F	3	BC 351	Principles of Biochemistry (BZ 110 or 120 or LIFE 102; CHEM 245 or 341 or 345)	F, S, SS	4
CBE 330*	Process Simulation (CBE 210; MATH 340)	F	3	CBE 320	Chem and Bio Reactor Design (CBE 310; CBE 330)	S	3
CBE 331*	Momentum Transfer and Mechanical Separations (CBE 210; MATH 340)	F	3	CBE 332	Heat and Mass Transfer Fundamentals (CBE 310; CBE 330; CBE 331)	S	3
LIFE 210	Introductory Eukaryotic Cell Biology (LIFE 102; CHEM 111; CHEM 112)	F	3	CBE 493	Professional Development Seminar	S	1
				AUCC		F, S, SS	3
<b>Total 16</b>				<b>NOTE- 18 cr OK b/c 493 is a 1-cr 'light' class; no CBE labs; 3 cr AUCC Total 18</b>			
<b>4th Year Fall</b>				<b>4th Year Spring</b>			
BIOM 421	Transport Phenomena in BME (BMS 300; CBE 332 or MECH 344)	F	3	BIOM 422	Kinetics of Biomolecular and Cellular Systems (BIOM 421 or CBE 320)	S	3
CBE 333	Chemical & Biological Engineering Transfer Laboratory (CBE 332 or conc.)	F	2	CBE 443	Chemical and Biological Engineering Lab II (CBE 442 or conc. or ENVE 442 or conc.)	S	2
CBE 442	Separation Processes (CBE 332)	F	4	MECH 262	Engineering Mechanics (MATH 161; PH 141)	S	4
CBE 451	Chemical and Biological Engineering Design I (CBE 320; CBE 442 or conc.)	F	3	STAT 315	Statistics for Engineers and Scientists (MATH 155 or 160)	F, S, SS	3
AUCC			3	AUCC		F, S, SS	3
<b>Total 15</b>				<b>Total 15</b>			
<b>5th Year Fall</b>				<b>5th Year Spring</b>			
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
BME-TE	BME Technical Elective _____		3	CBE 430	Process Control & Instrumentation (CBE 320 & 442)	S	3
CBE-TE	CBE Technical Elective _____		3	CBE-TE	CBE Technical Elective _____		2
AUCC		F, S, SS	3	AUCC		F, S, SS	3
Advanced Writing	CHEM 301 or CO300 or CO301B or JTC 300 or LB 300 (CO150 or HONR193)	F, S, SS	3				
<b>Total 16</b>				<b>Total 12</b>			

\* - The combination of 3rd year ECE courses is exceptionally challenging

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

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

<b>Key:</b>
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