

**Biomedical Engineering and Mechanical Engineering  
Curriculum Checksheet - Effective Fall 2018 And After**

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

**Program Total Credits = 157**

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR	COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
<b>1st Year Fall</b>				<b>1st Year Spring</b>			
BIOM 100	Overview of Biomedical Engineering	F	1	LIFE 102	Attributes of Living Systems	F, S, SS	4
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	MATH 161	Calc for Physical Scientists II (MATH 124; MATH 159 or 160)	F, S, SS	4
CHEM 112	General Chemistry Lab I (CHEM 111 or 117 or conc.)	F, S, SS	1	MECH 105	Mechanical Engineering Problem Solving (MECH 103; MATH 160; PH 141 or conc.)	F, S	3
CO 150	College Composition (CO 130 or placement by ACT or SAT or DSP Survey or Challenge Exam)	F, S, SS	3	PH 141	Physics for Scientists and Engineers I (MATH 126 or conc.; MATH 155 or 159 or 160 or conc.)	F, S, SS	5
MATH 160	Calculus for Physical Scientists I (MATH 124 and 126 (B or better))	F, S, SS	4				
MECH 103	Introduction to Mechanical Engineering	F, S	3				
	<b>Total</b>		<b>16</b>				<b>Total</b>
							<b>16</b>
<b>2nd Year Fall</b>				<b>2nd Year Spring</b>			
BIOM 200	Fundamentals of Biomedical Engineering (BIOM 100 or conc.; LIFE 102; MATH 160)	F	2	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
CIVE 260	Engineering Mechanics: Statics (MATH 159 or 160; PH 141)	F, S, SS	3	CIVE 261	Engineering Mechanics: Dynamics (CIVE 260)	F, S, SS	3
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	MATH 340	Intro to Ordinary Differential Equations (MATH 255 or 261)	F, S, SS	4
MECH 201	Engineering Design I (MECH 105)	F, S, SS	2	MECH 200 (or 200A & 200B)	Introduction to Manufacturing Processes (MECH 105)	F, S	3
PH 142	Physics for Scientists and Engineers II (MATH 161 or 255 or 271 or conc.; PH 141)	F, S	5	MECH 231	Engineering Experimentation (MECH 105; PH 142)	F, S	3
	<b>Total</b>		<b>16</b>				<b>Total</b>
							<b>16</b>
<b>3rd Year Fall</b>				<b>3rd Year Spring</b>			
CIVE 360	Mechanics of Solids (CIVE 260)	F, S	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
MECH 202	Engineering Design II (MECH 200 or 200A & 200B or conc.; MECH 201)	F, S	3	BMS 300	Principles of Human Physiology (BZ 101 or 110 or LIFE 102; CHEM 103 or 107 or 111)	F, S, SS	4
MECH 337	Thermodynamics (MATH 261; PH 141)	F, S	4	CHEM 245	Fundamentals of Organic Chemistry (CHEM 107 or 113)	F, S, SS	4
MECH 342	Mechanics & Thermodynamics of Flow Processes (MATH 340; MECH 337 or conc.; PH 141)	F, S	3	MECH 324	Dynamics of Machines (CIVE 261; MATH 340 or conc.)	F, S	4
STAT 315	Statistics for Engineers and Scientists (MATH 155 or 160)	F, S, SS	3				
	<b>Total</b>		<b>16</b>				<b>Total</b>
							<b>16</b>
<b>4th Year Fall</b>				<b>4th Year Spring</b>			
BIOM 441	Biomechanics and Biomaterials (CIVE 360; MECH 342; BMS 300 or conc.; MECH 324 or conc.; MECH 331 or 331A & 331B or conc.)	F	3	MECH 301A	Engineering Design III: Finite Element Analysis (CIVE 360; MECH 202 or conc.; MECH 342)	F, S	1
ECE 204	Intro to Electrical Engineering (MATH 161; PH 142)	F, S	3	MECH 301B	Engineering Design III: Computational Fluid Dynamics (CIVE 360; MECH 202 or conc.; MECH 301A or conc.; MECH 342)	F, S	1
MECH 325	Machine Design (CIVE 360)	F, S	3	MECH 307	Mechatronics and Measurement Systems (CIVE 261; ECE 204; MATH 340; MECH 231)	F, S	4
MECH 331 (or 331A & 331B)	Introduction to Engineering Materials (CHEM 111; CHEM 112; MECH 231)	F, S	4	MECH 338	Thermal/Fluid Sciences Lab (MECH 337; MECH 342; MECH 344 or conc.)	F, S	1
BME BE	BME Broad Elective	F, S, SS	3	MECH 344	Heat and Mass Transfer (MECH 342)	F, S	3
				Advanced Writing	CHEM 301 or CO300 or CO301B or JTC 300 or LB 300 (CO150 or HONR193)	F, S, SS	3
				AUCC		F, S, SS	3
	<b>Total</b>		<b>16</b>				<b>Total</b>
							<b>16</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 301A; MECH 301B or conc.; 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
ME-TE	MECH Technical Elective _____	F, S	3	AUCC		F, S, SS	3
AUCC		F, S, SS	3	AUCC		F, S, SS	3
AUCC		F, S, SS	3				
	<b>Total</b>		<b>16</b>				<b>Total</b>
							<b>13</b>

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)
3 cr - 1C Diversity, Equity, and Inclusion: _____
6 cr - 3B Arts and Humanities: _____
3 cr - 3C Social/Behavioral Science: _____
3 cr - 3D Historical Perspective: _____

Key:
"conc." = concurrent enrollment Term: F = Fall, S = Spring, SS = Summer Session
Grey indicates Biomedical Engineering courses
Light green indicates labs
Red indicates time-consuming/difficult courses