Biomedical Engineering and Mechanical Engineering

Curriculum Checksheet - Effective Fall 2018 And After

Name: _____

Program Total Credits = 157

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Fall			
BIOM 100	Overview of Biomedical Engineering	F	1
CHEM 111	General Chemistry I (MATH 118 or 127 or 141 or 155 or 160 or 161 or 229 or 261)	F, S, SS	4
CHEM 112	General Chemistry Lab I (CHEM 111/conc or CHEM 117/conc)	F, S, SS	1
CO 150	College Composition (CO 130 or placement by ACT or SAT or DSP Survey or Challenge Exam)	F, S, SS	3
MATH 160	Calculus for Physical Scientists I (All require a B or better: MATH 124; (MATH 126 or 127))	F, S, SS	4
MECH 103	Introduction to Mechanical Engineering	F, S	3
		Total	**16**
2nd Year Fall			
BIOM 200	Fundamentals of Biomedical Engineering (BIOM 100/conc; LIFE 102; MATH 160)	F	2
CIVE 260	Engineering Mechanics: Statics (PH 141; (MATH 159 or 160))	F, S, SS	3
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4
MECH 201	Engineering Design I (MECH 105)	F, S	2
PH 142	Physics for Scientists and Engineers II (PH 141; (MATH 161/conc or 255/conc or 271/conc))	F, S, SS	5
		Total	**16**
3rd Year Fall			
CIVE 360	Mechanics of Solids (CIVE 260)	F, S, SS	3
MECH 202	Engineering Design II (MECH 201; MECH 200A/conc; MECH 200B/conc)	F, S	3
MECH 337	Thermodynamics (MATH 261; PH 141)	F, S	4
MECH 342	Mechanics & Thermodynamics of Flow Processes (MATH 340/conc; PH 141; MECH 337/conc)	F, S	3
STAT 315	Statistics for Engineers and Scientists (MATH 155 or 159 or 160)	F, S, SS	3
		Total	**16**
4th Year Fall			
BIOM 441	Biomechanics and Biomaterials (MECH 342; (BMS 300/conc; CIVE 360; MECH 324/conc); (MECH 331/conc or MECH 331B/conc; MECH 331A/conc))	F	3
ECE 204	Intro to Electrical Engineering (MATH 161; PH 142)	F, S	3
MECH 325	Machine Design (CIVE 360)	F, S	3
MECH 331A	Intro to Engineering Materials: Lecture (CHEM 111; CHEM 112; MECH 231)	F, S	3
MECH 331B	Intro to Engineering Materials: Lab (CHEM 111; CHEM 112; MECH 231; MECH 331A/conc)	F, S	1
BME BE	BME Broad Elective _____	F, S, SS	3
		Total	**16**
5th Year Fall			
BIOM 486A	Biomedical Design Practicum: Capstone Design I (BIOM 300; BIOM 441; MECH 301A; MECH 301B/conc; MECH 307	F	4
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
		Total	**16**

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Spring			
LIFE 102	Attributes of Living Systems	F, S, SS	4
MATH 161	Calc for Physical Scientists II ((MATH 124 or 127); (MATH 159 or 160))	F, S, SS	4
MECH 105	Mechanical Engineering Problem Solving (MECH 103; PH 141/conc; (MATH 159/conc or 160/conc))	F, S	3
PH 141	Physics for Scientists and Engineers I (MATH 159/conc or MATH 160/conc or (MATH 126/conc; MATH 155/conc) or (MATH 127/conc; MATH 155/conc))	F, S, SS	5
		Total	**16**
2nd Year Spring			
CHEM 113	General Chemistry II ((CHEM 107 or 111 or 117); (MATH 124 or 127 or 141/conc or 155/conc or 160/conc or 161/conc or 229/conc or 261/conc))	F, S, SS	3
CIVE 261	Engineering Mechanics: Dynamics (CIVE 260)	F, S, SS	3
MATH 340	Intro to ordinary Differential Equations (MATH 255 or 261)	F, S, SS	4
MECH 200A	Intro to Manufacturing Processes: Lecture (MECH 105)	F, S, SS	2
MECH 200B	Intro to Manufacturing Processes: Lab (MECH 200A/conc)	F, S, SS	1
MECH 231	Engineering Experimentation (PH 142; MECH 105)	F, S	3
		Total	**16**
3rd Year Spring			
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
BMS 300	Principles of Human Physiology ((BZ 101 or 110 or LIFE 102); (CHEM 103 or 107 or 111))	F, S, SS	4
CHEM 245	Fundamentals of organic Chemistry (CHEM 107 or 113)	F, S, SS	4
MECH 324	Dynamics of Machines (CIVE 261; MATH 340/conc)	F, S	4
		Total	**16**
4th Year Spring			
MECH 301A	Engineering Design III: Finite Element Analysis (CIVE 360; MECH 202/conc; MECH 342)	F, S	1
MECH 301B	Engineering Design III: Computational Fluid Dynamics (CIVE 360; MECH 202/conc; MECH 301A/conc; MECH 342)	F, S	1
MECH 307	Mechatronics and Measurement Systems (CIVE 261; ECE 204; MATH 340; MECH 231)	F, S	4
MECH 338	Thermal/Fluid Sciences Lab (MECH 337; MECH 342; MECH 344/conc)	F, S	1
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, check course catalog for all prereqs)	F, S, SS	3
AUCC	_____	F, S, SS	3
		Total	**16**
5th Year Spring			
BIOM 486B	Biomedical Design Practicum: Capstone Design II (BIOM 486A; (PH 353 or (CBE 451 or ECE 312) or (MECH 325; MECH 344))	S	4
BME-TE	BME Technical Elective _____	F, S, SS	3
AUCC	_____	F, S, SS	3
AUCC	_____	F, S, SS	3
		Total	**13**

Please note that curricula can change; be sure to check DARS/Degree Audit and with your advisors regularly to ensure you are on track.

AUCCs- Additional All University Core Courses (click here for list)
3 credits - 1C Diversity, Equity, and Inclusion:
6 credits - 3B Arts and Humanities: _____ _____
3 credits - 3C Social/Behavioral Science:
3 credits - 3D Historical Perspective:

Key:

/conc = may be taken concurrently Term: F = Fall, S = Spring, SS = Summer Session

Grey indicates Biomedical Engineering courses

Light green indicates labs

Red indicates time-consuming/difficult courses

Rev-8-17-2023