

Biomedical Engineering and Mechanical Engineering

Name: _____

Honors Track 2 Curriculum Check Sheet - Effective FA 18 and after

Program Total Credits = 165

COURSE	COURSE NAME (PREREQS (";" DENOTES "AND"))	TERM	CR	COURSE	COURSE NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Fall				1st Year Spring			
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	Calculus for Physical Scientists II (MATH 124; MATH 159 or 160)	F, S, SS	4
CHEM 112 ^A	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
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
MECH 103	Introduction to Mechanical Engineering	F, S	3				
HONR 192	Honors First Year Seminar	F	4				
Total 17				Total 16			
2nd Year Fall				2nd Year Spring			
BIOM 200	Fundamentals of Biomedical Engineering (BIOM 100 or conc.; LIFE 102; MATH 160)	F	2	CIVE 260	Engineering Mechanics: Statics (MATH 159 or 160; PH 141)	F, S, SS	3
CO 150	College Composition (CO 130 or placement by ACT or SAT or DSP Survey or Challenge Exam)	F, S, SS	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
MATH 261 ^A	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	MATH 340 ^A	Intro to Ordinary Differential Equations (MATH 255 or 256)	F, S, SS	4
MECH 201	Engineering Design I (MECH 105)	F, S, SS	2	MECH 200 A	Introduction to Manufacturing Processes: Lecture	F, S	2
				MECH 200 B	Introduction to Manufacturing Processes: Lab	F, S	1
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
Total 16				Total 16			
3rd Year Fall				3rd Year Spring			
CIVE 261	Engineering Mechanics: Dynamics (CIVE 260)	F, S, SS	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 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 342 ^A	Mechanics & Thermodynamics of Flow Processes (MATH 261; PH 141)	F, S	3	CIVE 360	Mechanics of Solids (CIVE 260 or MECH 262)	F, S	3
MECH 337	Thermodynamics (MATH 261; PH 141)	F, S	4	HONR 292	Honors Seminar -- Knowing in Arts & Humanities OR -- OR 293	F, S	3
				AUCC		F, S, SS	3
STAT 315	Statistics for Engineers and Scientists (MATH 155 or 160)	F, S, SS	3				
Total 16				Total 17			
4th Year Fall				4th Year Spring			
BIOM 441	Biomechanics and Biomaterials (CIVE 360; MECH 342; BMS 300 or conc. MECH 324 or conc.; MECH 331 or conc.)	F	3	CHEM 245	Fundamentals of Organic Chemistry (CHEM 107 or 113)	F, S, SS	4
ECE 204	Intro to Electrical Engineering (MATH 161; PH 142)	F, S	3	MECH 301A,B	Engineering Design III (CIVE 360; MECH 202 or conc.; MECH 342); *MECH 301B conc. with 301A	F, S	2
MECH 324	Dynamics of Machines (CIVE 261; MATH 340 or conc.)	F, S	4	MECH 301 A	Engineering Design III; Finite Element Analysis	F, S	1
				MECH 301 B	Engineering Design III: Computational Fluid Dynamics	F, S	1
MECH 331 A	Introduction to Engineering Materials: Lecture	F, S	3	MECH 344	Heat and Mass Transfer (MECH 342)	F, S	3
MECH 331 B	Introduction to Engineering Materials: Lab	F, S	1	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	AUCC		F, S, SS	3
Total 17				Total 15			
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
MECH 325	Machine Design (CIVE 360)	F, S	3	BME-TE	BME Technical Elective _____	F, S, SS	3
AUCC		F, S, SS	3	ME-TE	MECH Technical Elective _____	F, S	3
BME-TE	BME Technical Elective _____	F, S, SS	3	HONR 499	Senior Honors Thesis (HONR 399)	F, S, SS	3
HONR 399	Pre-Thesis - Honors	F, S	1	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				
Total 17				Total 16			

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

Track 2 Honors Program Required Courses in BLUE:
 * HONR 192, 292 (A&H) or 293 (G&C), 399, 499
 * 5 honors courses in major (15 credits) **only 3cr 200-300 level
 ^ Honors Sections offered in these regular classes.

Additional All University Core Courses (AUCCs)
 **HONR 292 counts as 3B A&H; HONR 293 counts as 3E G/C
 3 cr - 3B Arts and Humanities (A&H):
 3 cr - 3C Social/Behavioral Science:
 3 cr - 3D Historical Perspective:
 **3 cr - EITHER 3B A&H OR 3E Global/Cultural Awareness:

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