

Honors Track 1 Curriculum Checksheet - Effective FA18 and after

Program Total Credits = 157

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR	COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Fall				1st Year Spring			
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	CBE 101A	Intro to Chemical and Biological Engr: Lecture (CBE 160/conc)	F, S	2
CHEM 112	General Chemistry Lab I (CHEM 111/conc or CHEM 117/conc)	F, S, SS	1	CBE 101B	Intro to Chemical and Biological Engr: Lab (CBE 101A/conc)	F, S	1
HONR 192	Honors First Year Seminar	F, S	4	CBE 160	MATLAB for Chemical and Biological Engineers	F, S	1
LIFE 102	Attributes of Living Systems	F, S, SS	4	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
MATH 160	Calculus for Physical Scientists I (All require a B or better: MATH 124; (MATH 126 or 127))	F, S, SS	4	CHEM 114	General Chemistry Lab II (CHEM 113/conc; (CHEM 108 or 112))	F, S, SS	1
				MATH 161	Calc for Physical Scientists II ((MATH 124 or 127); (MATH 159 or 160))	F, S, SS	4
				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 17				Total 17			
2nd Year Fall				2nd Year Spring			
BIOM 100	Overview of Biomedical Engineering	F	1	CBE 210	Thermodynamic Process Analysis (CBE 201 ; MATH 261/conc)	S	3
CBE 201	Material and Energy Balances ((CBE 101 or CBE 101A or CBE 160/conc or MATH 151/conc); (LIFE 102/conc; CHEM 111; PH 141/conc))	F	3	CBE 393	Professional Development Seminar	S	1
CBE 205	Fundamentals of Biological Engineering ((CBE 101 or 101A); (CBE 160; LIFE 102))	F	3	CHEM 343	Modern organic Chemistry II (All require a C- or better: CHEM 241 or 245 or 341 or 345)	F, S, SS	3
CHEM 341	Modern Organic Chemistry I (CHEM 113)	F, S, SS	3	CHEM 344	Modern organic Chemistry Lab (CHEM 114; CHEM 343/conc)	F, S, SS	2
HONR 193	Honors Seminar (HONR 192)	F, S	3	MATH 340	Intro to Ordinary Differential Equations (MATH 255 or 261)	F, S, SS	4
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	MECH 262	Engineering Mechanics (MATH 161; PH 141)	S	4
Total 17				Total 17			
3rd Year Fall				3rd Year Spring			
CBE 310	Molecular concepts and Applications (CBE 210 ; MATH 340)	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
CBE 330	Process Simulation (CBE 210 ; MATH 340)	F	3	BMS 300	Principles of Human Physiology ((BZ 101 or 110 or LIFE 102); (CHEM 103 or 107 or 111))	F, S, SS	4
CBE 331	Momentum Transfer and Mechanical Separations (CBE 210 ; MATH 340)	F	3	CBE 320	Chemical and Biological Reactor Design (CBE 205; 310; 330 ; 332/conc)	S	3
HONR 192	Honors Seminar (HONR 192; 193)	F, S	3	CBE 332	Heat & Mass Transfer Fundamentals (CBE 330; 331)	S	3
A, B, or C	*HONR 292B is recommended to fulfill AUCC 3B						
STAT 315	Intro to Theory & Practice of Stat (MATH 155 or 159 or 160)	F, S, SS	3				
Total 15				Total 14			
4th Year Fall				4th Year Spring			
BIOM 421	Transport Phenomena in Biomedical Engineering (BMS 300; (CBE 332 or MECH 344))	F	3	BIOM 422	Quantitative Systems and Synthetic Biology (BIOM 421 or CBE 320)	S	3
CBE 333	Chemical & Biological Engineering Lab I (CBE 332)	F	2	CBE 430	Process Control & Instrumentation (CBE 320; 442)	S	3
CBE 442	Separation Processes (CBE 332)	F	4	CBE 443	Chemical and Biological Engineering Lab II (CBE 442)	S	2
CBE 451	Chemical and Biological Engineering Design I (CBE 320 ; CBE 442/conc)	F	3	PH 142	Physics for Scientists and Engineers II (PH 141; (MATH 161/conc or 255/conc or 271/conc))	F, S, SS	5
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	BME	BME Broad Elective	F, S, SS	3
Total 15				Total 16			
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 301A; MECH 301B/conc; MECH 307))	F	4	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
BC 351	Principles of Biochemistry ((BZ 110 or 120 or LIFE 102); (CHEM 241 or 245 or 341 or 345))	F, S, SS	4	HONR 492	Honors Senior Seminar (HONR 392)	F, S	3
HONR 399	Pre-Thesis - Honors	F, S	1	HONR 499	Senior Honors Thesis (HONR 399)	F, S, SS	3
HONR 392	Honors Seminar (HONR 193)	F, S	3	BME-TE	BME Technical Elective _____	F, S, SS	3
BME-TE	BME Technical Elective _____	F, S, SS	2	CBE-TE	CBE Technical Elective _____	F, S, SS	2
Total 14				Total 15			

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

Track 1 Honors Program Required Courses in BLUE:
 * HONR 192, 193, 292 A, B, or C, 392, 399, 492, 499
 * One 200 or 300 level honors course in major (3 credits)
 * One 300 or 400 level honors course in major (3 credits)
[Click here to find list of honors course offerings.](#)

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 exceptionally time-consuming/difficult courses
Must have at least a "C" in BOLDENED courses