Biomedical Engineering and Computer Engineering

Curriculum Checksheet

Name:

TOTAL PROGRAM CREDITS 157-158

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Fall			
BIOM 100	Overview of Biomedical Engineering	F	1
CO 150	College Composition (CO 130 or Placement)	F, S, SS	3
CS 150B	Culture and Coding	F,S	3
ECE 102	Digital Circuit Logic	F,S	4
MATH 160	Calculus for Physical Scientists I (MATH 124 and 126 (B or better))	F, S, SS	4
		Total	**15**
2nd Year Fall			
BIOM 200	Fundamentals of Biomedical Engineering (BIOM 100 or conc.; LIFE 102; MATH 160)	F	2
CS 165	(CS2) Data Structures (**CS162 or 163 or CS 164 or CIS 340**)	F, S	4
ECE 103	DC Circuit Analysis (**MATH 159 or MATH160)**	F,S	3
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4
PH 141	Physics for Sci and Engr I (MATH126 or 127 and MATH 155 or conc.) or (MATH159 or 160 or conc.)	F,S,SS	5
		Total	**18**
3rd Year Fall			
CS 220	Discrete Struct and their Applications (**CS150A or 150B or 152 w/min B grade)** OR **(162 or 163 or 164)**; MATH 155 or 159 or 160	F,S,SS	4
ECE 311	Linear Systems Analysis I (ECE 202; MATH 340; ECE 331 or conc.; (ECE 341 or CS 356 or ECE 451 or ECE 528 or conc.)	F	3
PH 142	Physics for Scientists and Engineers II (PH 141; MATH 161 or 255 or 271 or conc.)	F, S	5
CpE Elec - Recommend ECE 450+451 OR ECE528	ECE 451+452 - Digital System Design (**ECE 102; ECE 202**) OR ECE 528 - Embedded Systems/Machine Learning (**CS 270** or **ECE 251**)	F	4
		Total	**16**
4th Year Fall			
BMS 300	Principles of Human Physiology (BZ 101 or 110 or LIFE 102; CHEM 103 or 107 or 111)	F, S, SS	4
CHEM 113	General Chemistry II (CHEM 107 or 111 or 117; MATH 124 or 127 or 160 or 161 or 261 or conc.)	F, S, SS	3
MECH 337	Thermodynamics (MATH 261; PH 141)	F, S	4
CpE Elec	See approved list - note that prereqs for many electives may require grades of C or higher	F, S	4
		Total	**15**
5th Year Fall			
BIOM 486A	Biomedical Design Practicum: Capstone Design I (BIOM 300; (BIOM 431; ECE 311; ECE 332; ECE 342) (BIOM 421; CBE 320; CBE 442) or (BIOM 431; ECE 311; ECE 332; ECE 342) or (BIOM 441; MECH 301; MECH 307)	F	4
CO 301B or JTC 300	Writing/Disciplines-Sci (CO150 or HONR193) OR Prof'l/Tech Comm (CO150 or HONR193)	F,S or F,S,SS	3
CpE or Tech Elec	See approved list - note that prereqs for many electives may require grades of C or higher	F,S	0-6
AUCC		F, S, SS	3
		Total	**12-16**

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Spring			
CS 164	Java (CS1) Prior Programming (**CS 150B or CIS 240 or CS 150A or CS 150B** or **CS 152 w/min B grade**) or CS 163	F, S	4
ECE 251	Intro to Microprocessors (**ECE102**)	F	4
LIFE 102	Attributes of Living Systems	F, S, SS	4
MATH 161	Calculus for Physical Scientists II (MATH124 o r127; MATH 159 or 160)	F, S, SS	4
		Total	**16**
2nd Year Spring			
ECE 202	Circuit Theory Application (**ECE103; MATH161**)	S, SS	4
ECE 232	Into to Project Practices (ECE 202 or ECE 395B or ECE 495 or conc.)	F,S	1
ECE/STAT 303	Intro to Communication Principles (MATH 261; MATH 340 or conc.)	S	3
MATH 340	Intro to Ordinary Diff'tl Equations (MATH 255 or 261)	F, S, SS	4
MECH 262	Engineering Mechanics (MATH 161; PH 141)	S	4
		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)	S	4
CHEM 111	General Chemistry I (MATH 118 or 127 or 160 or 161 or 261); appropriate score on CHEM Prep)	F,S,SS	4
CHEM 112	General Chemistry Lab I (CHEM 111 or 117 or conc.)	F,S,SS	1
MATH 369 (linear Alg) or DSCI 369 (Linear Alg/Data Sci)	MATH 369 -Linear Algebra (MATH 156 or 161 or MATH 255 or MATH 271); DSCI 369 - Linear Algebra for Data science (MATH 124 and MATH 126) or MATH 160 or MATH 161)	F, S, SS	3-4
CS 253	Software Development with C++ (**CS165**)	F,S	4
		Total	**16-17**
4th Year Spring			
BIOM 431	Biomedical Signal and Image Processing (**ECE 303**; **ECE 311**; **PH 142**)	S	3
ECON 202	Microeconomics (MATH117 or 118 or 127 or 160)	F,S,SS	3
CHEM 245	Fundamentals of Organic Chemistry (CHEM 107 or 113)	F, S, SS	4
CpE Elec	See approved list - note that prereqs for many electives may require grades of C or higher	F, S	3-4
AUCC			3
		Total	**16-17**
5th Year Spring			
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	See approved list	F, S, SS	3
CpE or Tech Elec	See approved list - note that prereqs for many electives may require grades of C or higher	F, S	2-9
AUCC		F, S, SS	3
		Total	**12-16**

*** All course prerequisites for 100-, 200-, 300- and 400-level required ECE courses must be completed with a C or better**

Please note that curricula can change; be sure to check with your advisers 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: CS 150B
3 cr - 3C Social/Behavioral Science: ECON 202
3 cr - 3D Historical Perspective:

Key:

"conc." = conc.urrent 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 (except where 'B' or higher is noted)

9/15/2022