Biomedical Engineering and Computer Engineering
Curriculum Checksheet - Effective Fall 2026 and after

Name:

TOTAL PROGRAM CREDITS = 157

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR	COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Fall				**1st Year Spring**			
CHEM 111 or CHEM 120	General Chemistry I (MATH 118 or 127 or 141 or 155 or 160) **OR** Foundations of Modern Chemistry (MATH 118 or MATH 127 or MATH 155 or MATH 160)	F, S, SS	4	CO 150	College Composition (CO 130 or placement by ACT or SAT or DSP Survey or Challenge Exam)	F, S, SS	3
CHEM 112 or CHEM 121	General Chemistry Lab I (CHEM 111/conc or CHEM 117/conc) **OR** Foundations of Modern Chemistry Lab (CHEM 120/conc)	F, S, SS	1	**CS 164***[1]	CS1- Computational Thinking with Java **(CS 150B* or CS 152* or CS 163)** *See footnote for alternative options*	F, S	4
CS 150B*[1]	Culture and Coding: Python (no prereqs) *See footnote for alternative options*	F, S	3	ENGR 114	Engineering for Grand Challenges (ENGR 111 or MECH 104A or CBE 104A or CIVE 182A)	F, S	3
ENGR 111	Fundamentals of Engineering	F, S	3	**MATH 161**	Calc for Physical Scientists II ((MATH 124 or 127); (MATH 159 or 160))	F, S, SS	4
MATH 160	Calculus for Physical Scientists I **(MATH 124*; (MATH 126* or 127*))**	F, S, SS	4				
		Total	15			Total	14
2nd Year Fall				**2nd Year Spring**			
BIOM 200	Fundamentals of Biomedical Engineering (LIFE 102/conc; MATH 160)	F	2	CS 214	Software Development **(CS 165)**	F, S	3
CS 165	(CS2) Data Structures **(CS 162 or 163 or 164 or CIS 340)**	F, S	4	**ECE 206**	Analog Circuits II **(ECE 103 or ECE 205; MATH 161)**	S, SS	3
ECE 205	Analog Circuits I (ENGR 114/conc or ENGR 123/conc; **MATH 160**)	F, S	2	**ECE 232**	Introduction to Project Practices (ECE 202/conc or ECE 395B/conc or ECE 495B/conc)	F, S	1
LIFE 102	Attributes of Living Systems	F, S, SS	4	**ECE 252**	Intro to Digital Circuits (ENGR 114/conc or ENGR 123/conc)	F, S	3
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	**MATH 340**	Intro to ordinary Differential Equations (MATH 261)	F, S, SS	4
		Total	16			Total	14
3rd Year Fall				**3rd Year Spring**			
ECE/STAT 303	Introduction to Communications Principles **(MATH 261; MATH 340/conc)**	F	3	BIOM 300	Problem-Based Learning BME Lab (BIOM 200 or (CBE 205; MECH 262/conc); (MATH 340 or 345))	S	4
ECE 311	Linear Systems Analysis **(ECE 202 or ECE 206; MATH 340; ECE 451/conc or ECE 528/conc or CS 356 or concurrent)**	F	3	CS 220	Discrete Struct and their Applications **((CS 150A* or CS 150B* or CS 152* or CS 162 or CS 163 or CS 164); (MATH 155 or 156 or 159 or 160))**	F, S	4
PH 141	Physics for Scientists and Engineers I (MATH 159/conc or MATH 160/conc)	F, S, SS	5	**ECE 253**	Introduction to IoT, Microcontrollers & C **(ECE 102 or ECE 252)**	F, S	3
CpE Elec* - Recommend ECE 450+451 OR ECE 528	ECE 450+451 - Digital System Design **(ECE 102; ECE 202 or ECE 206)**	F	4	**PH 142**	Physics for Scientists and Engineers II (PH 141; MATH 161/conc)	F, S	5
	ECE 528 - Embedded Systems/Machine Learning **(CS 270 or ECE 251 or ECE 252)**						
		Total	15			Total	16
4th Year Fall				**4th Year Spring**			
BMS 300	Principles of Human Physiology ((BZ 101 or 110 or LIFE 102); (CHEM 103 or 107 or 111))	F, S, SS	4	BIOM 431	Biomedical Signal and Image Processing **(ECE/STAT 303; ECE 311; PH 142)**	S	3
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	CHEM 245	Fundamentals of organic Chemistry (CHEM 107 or 113)	F, S, SS	4
MATH 369 or DSCI 369	MATH 369 -Linear Algebra I (MATH 156 or 161 or 255 or 271)	F, S, SS	3	CT 301	Foundations of C++ **(CS 162 or 163 or 164)**	F, S	2
	DSCI 369 - Linear Algebra for Data science (MATH 124; (126 or 157); (159 or 155 or 156 or 160 or 161))						
MECH 339	Thermodynamics 1 (MATH 261; PH 141)	F, S	3	MECH 262	Engineering Mechanics (MATH 161; PH 141)	S	4
CO 301B or JTC 300	CO 301B: Writing in Disciplines: Science JTC 300: Strategic Writing & Communication (CO 150 or HONR 193 for both)	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	4
		Total	16			Total	17
5th Year Fall				**5th Year Spring**			
BIOM 486A	Biomedical Design Practicum: Capstone Design I (BIOM 300; pick 2 ECE 450+451, 452,456)	F	4	BIOM 486B	Biomedical Design Practicum: Capstone Design II (BIOM 486A; (pick 1 ECE 450+451, 452,456)	S	4
CpE or Tech Elec*	See approved list - note that prereqs for many electives may require grades of C or higher	F,S	4	BME-TE		F, S, SS	3
AUCC		F, S, SS	3	CpE or Tech Elec*	Click hyperlink to see approved list - note that prereqs for many electives may require grades of C or higher	F, S	3
AUCC		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	3
AUCC		F, S, SS	3	AUCC			3
		Total	17			Total	16

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

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

Many elective courses require prerequisite courses w/C or higher grades.

[1] CS 150B + CS 164: Students may also choose one of the following: 1)Arts/Humanities AUCC + CS 152+CS162 -OR- 2)Arts/Humanities AUCC+CS 163

* 18 credits of CpE/Technical electives are required (11 - 17 credits of Group 1 CpE Electives and 1-7 credits of Group 2 and 3 CpE Electives or Technical Electives)

AUCCs- Additional All University Core Courses (click here for list)
3 credits - 1C Diversity, Equity, and Inclusion:
6 credits - 3B Arts and Humanities: CS 150B
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 exceptionally time-consuming/difficult courses
Must have at least a "C" in BOLDED courses
BOLDED and ^ = Must have at least a "B" in courses   Rev 11.5.24

Biomedical Engineering and Computer Engineering

Name:

Honors Track 1 Curriculum Checksheet - Effective Fall 2026 And After — Program Total Credits = 161

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR	COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Fall				**1st Year Spring**			
CS 150B*[1]	Culture and Coding: Python (no prereqs) *See footnote for alternative options*	F, S	3	CHEM 111 or CHEM 120	General Chemistry I (MATH 118 or 127 or 141 or 155 or 160) OR Foundations of Modern Chemistry (MATH 118 or MATH 127 or MATH 155 or MATH 160)	F, S, SS	4
ENGR 111	Fundamentals of Engineering	F, S	3	CHEM 112 or CHEM 121	General Chemistry Lab I (CHEM 111/conc or CHEM 117/conc) OR Foundations of Modern Chemistry Lab (CHEM 120/conc)	F, S, SS	1
HONR 192	Honors First Year Seminar	F, S	4	CS 164*[1]	CS1- Computational Thinking with Java (CS 150B* or CS 152* or 163)	F, S	4
MATH 160	Calculus for Physical Scientists I (MATH 124*; (MATH 126* or 127*))	F, S, SS	4	ENGR 114	Engineering for Grand Challenges (ENGR 111 or MECH 104A or CBE 104A or CIVE 182A)	F, S	3
				MATH 161	Calc for Physical Scientists II ((MATH 124 or 127); (MATH 159 or 160))	F, S, SS	4
		Total	14			Total	16
2nd Year Fall				**2nd Year Spring**			
BIOM 200	Fundamentals of Biomedical Engineering (LIFE 102/conc; MATH 160)	F	2	CS 214	Software Development (CS 165)	F, S	3
CS 165	(CS2) Data Structures (CS 162 or 163 or 164 or CIS 340)	F, S	4	ECE 206	Analog Circuits II (ECE 103 or ECE 205; MATH 161)	S, SS	3
ECE 205	Analog Circuits I (ENGR 114/conc or ENGR 123/conc; MATH 160)	F, S	2	ECE 232	Introduction to Project Practices (ECE 202/conc or ECE 395B/conc or ECE 495B/conc)	F, S	1
LIFE 102	Attributes of Living Systems	F, S, SS	4	ECE 252	Intro to Digital Circuits (ENGR 114/conc or ENGR 123/conc)	F, S	3
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	HONR 193	Honors Seminar (HONR 192)	F, S	3
				MATH 340	Intro to ordinary Differential Equations (MATH 261)	F, S, SS	4
		Total	16			Total	17
3rd Year Fall				**3rd Year Spring**			
ECE/STAT 303	Introduction to Communications Principles (MATH 261; MATH 340/conc)	F	3	BIOM 300	Problem-Based Learning BME Lab (BIOM 200 or (CBE 205; MECH 262/conc); (MATH 340 or 345))	S	4
ECE 311	Linear Systems Analysis (ECE 202 or ECE 206; MATH 340; ECE 451/conc or ECE 528/conc or CS 356 or concurrent)	F	3	CS 220	Discrete Struct and their Applications ((CS 150A* or CS 150B* or CS 152* or CS 162 or CS 163 or CS 164); (MATH 155 or 156 or 159 or 160))	F, S	4
PH 141	Physics for Scientists and Engineers I (MATH 159/conc or MATH 160/conc)	F, S, SS	5	ECE 253	Introduction to IoT, Microcontrollers & C (ECE 102 or ECE 252)	F, S	3
CpE Elec* - Recommend ECE 450+451 OR ECE 528	ECE 450+451 - Digital System Design (ECE 102; ECE 202 or ECE 206) ECE 528 - Embedded Systems/Machine Learning (CS 270 or ECE 251 or ECE 252)	F	4	HONR 292 A, B, or C	Honors Seminar (HONR 192; 193) *HONR 292B is recommended to fulfill AUCC 3B	F, S	3
				MATH 369 or DSCI 369	MATH 369 -Linear Algebra I (MATH 156 or 161 or 255 or 271) DSCI 369 - Linear Algebra for Data science (MATH 124; (126 or 157); (159 or 155 or 156 or 160 or 161))	F, S, SS	3
		Total	15			Total	17
4th Year Fall				**4th Year Spring**			
BMS 300	Principles of Human Physiology ((BZ 101 or 110 or LIFE 102); (CHEM 103 or 107 or 111))	F, S, SS	4	BIOM 431	Biomedical Signal and Image Processing (ECE/STAT 303; ECE 311; PH 142)	S	3
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	CHEM 245	Fundamentals of organic Chemistry (CHEM 107 or 113)	F, S, SS	4
HONR 392	Honors Seminar (HONR 193)	F, S	3	CT 301	Foundations of C++ (CS 162 or 163 or 164)	F, S	2
MECH 339	Thermodynamics 1 (MATH 261; PH 141)	F, S	3	MECH 262	Engineering Mechanics (MATH 161; PH 141)	S	4
PH 142	Physics for Scientists and Engineers II (PH 141; MATH 161/conc)	F, S	5	CpE or Tech Elec*	See approved list - note that prereqs for many electives may require grades of C or higher	F, S	4
		Total	18			Total	17
5th Year Fall				**5th Year Spring**			
BIOM 486A	Biomedical Design Practicum: Capstone Design I (BIOM 300; pick 2 ECE 450+451, 452,456)	F	4	BIOM 486B	Biomedical Design Practicum: Capstone Design II (BIOM 486A; (pick 1 ECE 450+451, 452,456)	S	4
HONR 399	Pre-Thesis - Honors	F, S	1	HONR 499	Senior Honors Thesis (HONR 399)	F, S, SS	3
HONR 492	Honors Senior Seminar (HONR 392)	F, S	3	BME-TE		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	4	CpE or Tech Elec*	Click hyperlink to see approved list - note that prereqs for many electives may require grades of C or higher	F, S	3
CO 301B or JTC 300	CO 301B: Writing in Disciplines: Science JTC 300: Strategic Writing & Communication (CO 150 or HONR 193 for both)	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	3
		Total	15			Total	16

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

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

Many elective courses require prerequisite courses w/C or higher grades.

[1] CS 150B + CS 164: Students may also choose one of the following: 1)Arts/Humanities AUCC + CS 152+CS162 -OR- 2)Arts/Humanities AUCC+CS 163

* 18 credits of CpE/Technical electives are required (11 - 17 credits of Group 1 CpE Electives and 1-7 credits of Group 2 and 3 CpE Electives or Technical Electives)

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)
Reach out to your Honors advisor for 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 BOLDED courses
BOLDED and * = Must have at least a "B" in courses   Rev 11.5.24

Biomedical Engineering and Computer Engineering

Name:

Honors Track 2 Curriculum Checksheet - Effective Fall 2026 And After

Program Total Credits = 164

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR	COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	CR
1st Year Fall				**1st Year Spring**			
CS 150B*[1]	Culture and Coding: Python (no prereqs) *See footnote for alternative options*	F, S	3	CHEM 111 or CHEM 120	General Chemistry I (MATH 118 or 127 or 141 or 155 or 160) **OR** Foundations of Modern Chemistry (MATH 118 or MATH 127 or MATH 155 or MATH 160)	F, S, SS	4
ENGR 111	Fundamentals of Engineering	F, S	3	CHEM 112 or CHEM 121	General Chemistry Lab I (CHEM 111/conc or CHEM 117/conc) **OR** Foundations of Modern Chemistry Lab (CHEM 120/conc)	F, S, SS	1
HONR 192	Honors First Year Seminar	F, S	4	**CS 164***[1]	CS1- Computational Thinking with Java (**CS 150B* or CS 152* or CS 163**)	F, S	4
MATH 160	Calculus for Physical Scientists I (**MATH 124***; (**MATH 126* or 127***))	F, S, SS	4	ENGR 114	Engineering for Grand Challenges (ENGR 111 or MECH 104A or CBE 104A or CIVE 182A)	F, S	3
				MATH 161	Calc for Physical Scientists II ((MATH 124 or 127); (MATH 159 or 160))	F, S, SS	4
		Total	14			Total	16
2nd Year Fall				**2nd Year Spring**			
BIOM 200	Fundamentals of Biomedical Engineering (LIFE 102/conc; MATH 160)	F	2	CO 150	College Composition (CO 130 or placement by ACT or SAT or DSP Survey or Challenge Exam)	F, S, SS	3
CS 165	(CS2) Data Structures (**CS 162 or 163 or 164 or CIS 340**)	F, S	4	CS 214	Software Development (**CS 165**)	F, S	3
ECE 205	Analog Circuits I (ENGR 114/conc or ENGR 123/conc; **MATH 160**)	F, S	2	**ECE 206**	Analog Circuits II (**ECE 103 or ECE 205; MATH 161**)	S, SS	3
LIFE 102	Attributes of Living Systems	F, S, SS	4	**ECE 232**	Introduction to Project Practices (ECE 202/conc or ECE 395B/conc or ECE 495B/conc)	F, S	1
MATH 261	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	**ECE 252**	Intro to Digital Circuits (ENGR 114/conc or ENGR 123/conc)	F, S	3
				MATH 340	Intro to ordinary Differential Equations (MATH 261)	F, S, SS	4
		Total	16			Total	17
3rd Year Fall				**3rd Year Spring**			
ECE/STAT 303	Introduction to Communications Principles (**MATH 261**; MATH 340/conc)	F	3	BIOM 300	Problem-Based Learning BME Lab (BIOM 200 or (CBE 205; MECH 262/conc); (MATH 340 or 345))	S	4
ECE 311	Linear Systems Analysis (**ECE 202 or ECE 206; MATH 340; ECE 451/conc or ECE 528/conc or CS 356 or concurrent**)	F	3	**ECE 253**	Introduction to IoT, Microcontrollers & C (**ECE 102 or ECE 252**)	F, S	3
PH 141	Physics for Scientists and Engineers I (MATH 159/conc or MATH 160/conc)	F, S, SS	5	HONR 292 A, B, or C	Honors Seminar (HONR 192; 193) *HONR 292B is recommended to fulfill AUCC 3B*	F, S	3
CpE Elec* - Recommend ECE 450+451 OR ECE 528	ECE 450+451 - Digital System Design (**ECE 102; ECE 202 or ECE 206**) ECE 528 - Embedded Systems/Machine Learning (**CS 270 or ECE 251 or ECE 252**)	F	4	**PH 142**	Physics for Scientists and Engineers II (PH 141; MATH 161/conc)	F, S	5
				MATH 369 or DSCI 369	MATH 369 -Linear Algebra I (MATH 156 or 161 or 255 or 271) DSCI 369 - Linear Algebra for Data science (MATH 124; (126 or 157); (159 or 155 or 156 or 160 or 161)	F, S, SS	3
		Total	15			Total	18
4th Year Fall				**4th Year Spring**			
BMS 300	Principles of Human Physiology ((BZ 101 or 110 or LIFE 102); (CHEM 103 or 107 or 111))	F, S, SS	4	BIOM 431	Biomedical Signal and Image Processing (**ECE/STAT 303; ECE 311; PH 142**)	S	3
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	CHEM 245	Fundamentals of organic Chemistry (CHEM 107 or 113)	F, S, SS	4
CS 220	Discrete Struct and their Applications (**CS 150A* or CS 150B* or CS 152* or CS 162 or CS 163 or CS 164**); (MATH 155 or 156 or 159 or 160))	F, S	4	CT 301	Foundations of C++ (**CS 162 or 163 or 164**)	F, S	2
MECH 339	Thermodynamics 1 (MATH 261; PH 141)	F, S	3	MECH 262	Engineering Mechanics (MATH 161; PH 141)	S	4
AUCC		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	4
		Total	17			Total	17
5th Year Fall				**5th Year Spring**			
BIOM 486A	Biomedical Design Practicum: Capstone Design I (BIOM 300; pick 2 ECE 450+451, 452,456)	F	4	BIOM 486B	Biomedical Design Practicum: Capstone Design II (BIOM 486A; (pick 1 ECE 450+451, 452,456)	S	4
HONR 399	Pre-Thesis - Honors	F, S	1	HONR 499	Senior Honors Thesis (HONR 399)	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	4	BME-TE		F, S, SS	3
CO 301B or JTC 300	CO 301B: Writing in Disciplines: Science JTC 300: Strategic Writing & Communication (CO 150 or HONR 193 for both)	F,S or F,S,SS	3	CpE or Tech Elec*	Click hyperlink to see approved list - note that prereqs for many electives may require grades of C or higher	F, S	3
AUCC		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	3
AUCC		F, S, SS	3				
		Total	18			Total	16

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[1] CS 150B + CS 164: Students may also choose one of the following: 1)Arts/Humanities AUCC + CS 152+CS162 -OR- 2)Arts/Humanities AUCC+CS 163

* 18 credits of CpE/Technical electives are required (11 - 17 credits of Group 1 CpE Electives and 1-7 credits of Group 2 and 3 CpE Electives or Technical Electives)

Additional Requirements for Honors Track 2:
200 Level Honors Option in Major (3 cr): _____
300-400 Level Honors Option in Major (12 cr) : _____
_____
3 credits - 1C Diversity, Equity, Inclusion: _____
6 credits - 3B Arts and Humanities: CS 150B
_____
3 credits - 3C Social/Behavioral Science: _____
3 credits - 3D Historical Perspective: _____

Key:

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 BOLDED courses
BOLDED and *π* **= Must have at least a "B" in courses**

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