

**Honors Track 1 Curriculum Check Sheet - Effective FA 18 and after** Program Total Credits = 164

COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	C	COURSE	NAME (PREREQS (";" DENOTES "AND"))	TERM	C
<b>1st Year Fall</b>				<b>1st Year Spring</b>			
BIOM 100	Overview of Biomedical Engineering	F	1	<b>ECE 103</b>	DC Circuit Analysis ( <b>MATH 160</b> )	F, S	3
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	LIFE 102	Attributes of Living Systems	F, S, SS	4
<b>ECE 102</b>	Digital Circuit Logic	F, S	4	<b>MATH 161</b>	Calculus for Physical Scientists II (MATH 124; MATH 159 or 160)	F, S, SS	4
HONR 192	Honors First Year Seminar	F	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
<b>MATH 160</b>	Calculus for Physical Scientists I (MATH 124 and 126 (B or better))	F, S, SS	4				
<b>Total 17</b>				<b>Total 16</b>			
<b>2nd Year Fall</b>				<b>2nd Year Spring</b>			
BIOM 200	Fundamentals of Biomedical Engineering (BIOM 100 or conc.; LIFE 102; MATH 160)	F	2	<b>ECE 202</b>	Circuit Theory Applications ( <b>ECE 103, MATH 160</b> )	S, SS	4
CHEM 112 <sup>^</sup>	General Chemistry Lab I (CHEM 111 or 117 or conc.)	F, S, SS	1	<b>ECE / STAT 303 261</b>	Introduction to Communication Principles ( <b>MATH 261</b> ; MATH 340 or 345 or conc.)	S	3
CS 163 OR CS 164	Java (CS1) No Prior Programming ( <b>MATH 124</b> ) OR Java (CS1) Prior Programming ( <b>MATH 124</b> )	F, S	4	HONR 193	Honors Seminar (HONR 192)	S	3
<b>MATH 261<sup>^</sup></b>	Calculus for Physical Scientists III (MATH 161)	F, S, SS	4	<b>MATH 340<sup>^</sup></b>	Introduction to Ordinary Differential Equations (MATH 255 or 261)	F, S, SS	4
<b>PH 142</b>	Physics for Scientists and Engineers II (PH 141; MATH 161 or 255 or 271 or conc.)	F, S	5	PH 314	Introduction to Modern Physics (MATH 261 or conc.; PH 142)	S	4
<b>Total 16</b>				<b>Total 18</b>			
<b>3rd Year Fall</b>				<b>3rd Year Spring</b>			
<b>ECE 311<sup>^</sup></b>	Linear Systems Analysis I ( <b>ECE 202; MATH 340 or 345; ECE 331</b> or conc.; ECE 341 or ECE 451 or conc.)	F	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
<b>ECE 331</b>	Electronics Principles I ( <b>ECE 202; MATH 340 or 345; PH142</b> ; ECE 311 or conc.; ECE 341 or ECE 451 or conc.)	F	4	BMS 300	Principles of Human Physiology (BZ 101 or 110 or LIFE 102; CHEM 103 or 107 or 111)	F, S, SS	4
<b>ECE 341<sup>^</sup></b>	Electromagnetics Fields and Devices I ( <b>ECE 202; MATH 340 or 345; PH 142</b> ; ECE 311 or conc.; ECE 331 or conc.)	F	3	<b>ECE 332</b>	Electronics Principles II ( <b>ECE 331</b> )	S	4
HONR 292 OR 293	Honors Seminar -- Knowing in Arts & Humanities OR -- Knowing Across Cultures (HONR 193)	F, S	3	<b>ECE 342<sup>^</sup></b>	Electromagnetic Fields and Devices II ( <b>ECE 341</b> )	S	3
BME BE	BME Broad Elective	F, S, SS	3				
<b>Total 16</b>				<b>Total 15</b>			
<b>4th Year Fall</b>				<b>4th Year Spring</b>			
CHEM 113	Gen Chem II (CHEM 107 or 111 or 117; MATH 124 or MATH 141, 155, 160, 161, 229, 261 or conc.)	F, S, SS	3	BIOM 431	Biomedical Signal and Image Processing ( <b>ECE 303; ECE 311; PH 142</b> )	S	3
<b>ECE 404</b>	Experimental Optical Electronics (conc. w/ ECE 441)	F	2	CHEM 245	Fundamentals of Organic Chemistry (CHEM 107 or 113)	F, S, SS	4
<b>ECE 441</b>	Optical Electronics ( <b>ECE 342</b> )	F	3	<b>ECE 457</b>	Fourier Optics ( <b>ECE 311; ECE 342</b> )	S	3
PH 353	Optics and Waves (PH 142; MATH 261)	F	4	ECON 202 (AUCC 3C)	Principles of Microeconomics (MATH 117 or 118 or 141 or 155 or 160)	F, S, SS	3
CO 301B OR JTC 300	CHEM 301 or CO300 or CO301B or JTC 300 or LB 300 (CO150, HONR193)	F, S, SS	3	MECH 262	Engineering Mechanics (MATH 161; PH 141)	S	4
<b>Total 15</b>				<b>Total 17</b>			
<b>5th Year Fall</b>				<b>5th Year Spring</b>			
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; MECH 402) or (PH 353))	S	4
MECH 337	Thermodynamics (MATH 261; PH 141)	F, S	4	ECE-TE	ECE Technical Elective _____	F, S, SS	3
PH 451	Intro Quantum Mechanics I (MATH 340 or 345; PH 314)	F	3	ECE-TE	ECE Technical Elective _____	F, S, SS	3
ECE-TE	ECE Technical Elective _____	F, S, SS	3	HONR 492	Honors Senior Seminar (HONR 392)	F, S	3
HONR 392	Honors Seminar (HONR 193)	F, S	3	HONR 499	Senior Honors Thesis (HONR 399)	F, S, SS	3
HONR 399	Pre-Thesis - Honors	F, S	1				
<b>Total 18</b>				<b>Total 16</b>			

\* - All course prerequisites for required undergraduate 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.

<p><b>Track 1 Honors Program Required Courses in BLUE:</b></p> <ul style="list-style-type: none"> <li>* HONR 192, 193, 292 (or 293), 392, 399, 492, 499</li> <li>* One 200 or 300 level honors course in major (3 credits)</li> <li>* One 300 or 400 level honors course in major (3 credits)</li> <li><sup>^</sup> Honors Sections offered in these regular classes.</li> </ul>
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<p><b>Key:</b></p> <p>"conc." = concurrent enrollment Term: F = Fall, S = Spring, SS = Summer Session</p> <p>Grey indicates Biomedical Engineering courses</p> <p>Light green indicates labs</p> <p>Red indicates exceptionally time-consuming/difficult courses</p> <p><b>Must have at least a "C" in BOLDLED courses</b></p>
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