

*Recommended course plan for BSE students graduating in 2024 and interested in*  
**HEALTH PROFESSIONS**

(140 credits to include MCAT reqs) – NOTE: You only need 128 credits for your BSE degree

<b>Fall 1st Year 16 cr.</b>	<b>Chem 1035 (3)</b> General Chemistry <sup>5</sup>	<b>Chem 1045 (1)</b> General Chemistry Lab <sup>5</sup>	<b>MATH 1225 (4)</b> Calculus for Science <sup>5</sup>	<b>ENGE 1215 (2)</b> Foundations of Engineering <sup>5</sup>	<b>ENGL 1105 (3)</b> First-Year Writing <sup>5</sup>	<b>PSYC 1004 (3)</b> Intro to Psych <sup>5</sup>	
<b>Spring 1st Year 17 cr.</b>	<b>CHEM 1036 (3)</b> General Chemistry <sup>5</sup> Pre: CHEM 1035 Spring, Summer	<b>CHEM 1046 (1)</b> General Chem Lab <sup>4</sup> Co: CHEM 1036 Spring, Summer	<b>PHYS 2305 (4)</b> Found of Physics <sup>5</sup> Pre: MATH 1225 Co: MATH 1226	<b>MATH 1226 (4)</b> Calculus for Science <sup>5</sup> Pre: MATH 1225	<b>ENGE 1216 (2)</b> Exploration of Engineering Design <sup>5</sup> Pre: ENGE 1215	<b>ENGL 1106 (3)</b> Freshman English <sup>5</sup> Pre: ENGL 1105	
<b>Fall 2nd Year 19 cr.</b>	<b>MATH 2114 (3)</b> Intro to Linear Algebra Pre: Math 1225 (min. grade B) or MATH 1226	<b>MATH 2204 (3)</b> Multivariable Calculus Pre: Math 1226	<b>ESM 2104 (3)</b> Statics Pre: MATH 1226	<b>BIOL 1105 (3)</b> Principles of Biology Fall, Summer	<b>BIOL 1115 (1)</b> Principles of Bio Lab <sup>4</sup> Fall, Summer	<b>BSE 2004 (3)</b> Intro to BSE Pre: ENGE 1215 Fall Only	<b>SOC 1004 (3)</b> Intro to Sociology <sup>5</sup>
<b>Spring 2nd Year 19 cr.</b>	<b>MATH 2214 (3)</b> Differential Equations <sup>5</sup> Pre: MATH 2114 & 1226	<b>ESM 2304 (3)</b> Dynamics Pre: ESM 2104, MATH 2224 Co: MATH 2214	<b>BIOL 1106 (3)</b> Principles Biology Spring, Summer	<b>BIOL 1116 (1)</b> Principles Bio Lab <sup>4</sup> Co: BIOL 1106 Spring, Summer	<b>BSE 3144 (2)</b> Eng Analysis for Biol Sys Co: MATH 2214 Spring Only	<b>PHYS 2306 (4)</b> Foundations Physics Pre: MATH 1225, PHYS 2305	<b>Pathways (3)</b>
<b>Fall 3rd Year 14 cr.</b>	<b>ESM 3024 (3)</b> Intro Fluid Mechanics Pre: ESM 2304 Fall Only	<b>STAT 3704 (2)</b> Statistics for Engineering Applications Pre: MATH 2224/2204	<b>BSE 3154 (3)</b> Thermodynamics of Biol. Systems Pre: MATH 2204/2224, ESM 2304 Co: ESM 3024 Fall Only		<b>CHEM 2535 (3)</b> Organic Chemistry <sup>2</sup> Fall, Spring, Summer	<b>CHEM 2545 (1)</b> O-Chem Lab <sup>4</sup> Fall, Spring, Summer	<b>ISE 2014 (2)</b> Engineering Economy
<b>Spring 3rd Year 19 cr.</b>	<b>BIOL 2604 (3)</b> General Microbiology Pre: BIOL 1105, 1106, CHEM 1035, 1036	<b>BSE 3504 (3)</b> Transport Processes in BSE Pre: BSE 3154, ESM 3024 Spring Only	<b>BSE 3524 (3)</b> Unit Operations <sup>1</sup> Spring Only Co: BSE 3504 & BSE 3534	<b>CHEM 2536 (3)</b> Organic Chemistry <sup>4</sup> Fall, Spring, Summer	<b>CHEM 2546 (1)</b> Organic Chem Lab <sup>4</sup> Fall, Spring, Summer	<b>BSE 3534 (3)</b> Bioprocess Engineering <sup>1</sup> Co: BSE 3504 & BIOL 2604 Pre: BSE 3154 Spring Only	<b>ISE 3034 (3)</b> Technical Communication for Engineers <sup>5</sup> Spring Only
<b>Fall 4th Year 18 cr.</b>	<b>BSE 4125 (2)</b> Comprehensive Design Project Pre: BSE 3524 Fall Only	<b>BSE 4524 (3)</b> Bioprocessing Plant Design <sup>1</sup> Pre: BSE 3524 Fall Only	<b>BSE 4544 (3)</b> Protein Separation <sup>1</sup> Pre: BSE 3504 Fall Only	<b>BSE 4534 (1)</b> Biological Processing Lab <sup>4</sup> Pre: BSE 3524	<b>BCHM 3114 (3)</b> Biochemistry for Biotech <sup>4</sup> Pre: CHEM 2536 Fall Only	<b>Engineering Topics Elective (3)</b>	<b>BIOL 2004 (3)</b> Genetics <sup>4</sup> Fall, Spring, Summer
<b>Spring 4th Year 18 cr.</b>	<b>BSE 4126 (3)</b> Comprehensive Design Project Pre: BSE 4125 Spring Only		<b>Engineering Topics Elective (3)</b>	<b>Pathways (3)</b>	<b>Engineering Topics Elective (3)</b>	<b>BIOL 2134 (3)</b> Cell Function Differentiation <sup>4</sup> Fall, Spring, Summer	<b>Pathways (3)</b>

<sup>1</sup> BSE Elective; <sup>2</sup> Chemistry Elective; <sup>3</sup> Engineering Elective; <sup>4</sup> Technical Elective; <sup>5</sup> Pathways