## Biosystems Engineering Department
### B.S. in Biosystems Analytics & Technology

<table>
<thead>
<tr>
<th>2023-2024 Catalog Year</th>
<th>Course</th>
<th>Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Semester -- Fall, Freshman Year</strong></td>
<td>15</td>
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<tr>
<td></td>
<td>Basic Computer Skills for Office Applications (BAT 120)</td>
<td>3</td>
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<td></td>
<td>First-Year Composition I</td>
<td>3</td>
<td>Writing placement</td>
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<tr>
<td></td>
<td>Introductory Biology I (MCB 181 R&amp;L or PLS 240)</td>
<td>4</td>
<td>Math 120R or higher</td>
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<tr>
<td></td>
<td>Second Language - First Semester</td>
<td>4</td>
<td>Language placement</td>
</tr>
<tr>
<td></td>
<td>UNIV 101</td>
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<tr>
<td><strong>2nd Semester -- Spring, Freshman Year</strong></td>
<td>17</td>
<td></td>
<td>BAT 102 is not being taught in 2023-24</td>
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<tr>
<td></td>
<td>Elective approved by the BAT Advisor</td>
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<tr>
<td></td>
<td>First-Year Composition II</td>
<td>3</td>
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<tr>
<td></td>
<td>Introductory Biology II (ECOL182L, ECOL182R, or MIC 205A, MIC 205L)</td>
<td>4</td>
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<td></td>
<td>Second Language - Second Semester Proficiency</td>
<td>4</td>
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<td></td>
<td>Calculus I (MATH 122A/B* or MATH 125)</td>
<td>3</td>
<td>*Math 122a= 1 unit /122b= 4 units</td>
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<tr>
<td><strong>3rd Semester -- Fall, Sophomore Year</strong></td>
<td>14</td>
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<td></td>
<td>Introduction to Biosystems Engineering (BAT 201, Fall only)</td>
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<td></td>
<td>Intro to Sensors &amp; Controls or elective (BAT 247, Spring only)</td>
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<td></td>
<td>General Chemistry I (CHEM 151**, or CHEM 141 &amp; 143, or CHEM 161 &amp; 163)</td>
<td>4</td>
<td>**Satisfys GEN ED: Natural Scientist Gen ED requirement</td>
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<tr>
<td></td>
<td>Elective*</td>
<td>2</td>
<td>*students who complete MATH 122A and 122B do not need to complete this requirement</td>
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<td></td>
<td>GE Core: Artist</td>
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<tr>
<td><strong>4th Semester -- Spring, Sophomore Year</strong></td>
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<td></td>
<td>Engineering Analysis &amp; Problem Solving (BAT 205, Spring only)</td>
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<td></td>
<td>General Chemistry II (3 unit Lec + 1 unit Lab)</td>
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<td>Statistics (MATH 263 or BIOS 376 or AREC 239)</td>
<td>3</td>
<td>Cal I</td>
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<td></td>
<td>Data Science (ESOC 214 or ISTA 131 or CSC 110)</td>
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<td>GE Core: Humanist</td>
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<td><strong>5th Semester -- Fall, Junior Year</strong></td>
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<tr>
<td>Introduction to Biosystems Analytics (BAT 310, Fall only)</td>
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<tr>
<td>Additional Science (BIOC384 or BIOC 385 or ECOL 320 or MIC 205A &amp; MIC 205L or RNR 384 or PHYS 102 or PHYS 141 or PHYS 161H or PHYS 181)</td>
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<tr>
<td>Science Communication/Technical Writing (ALC 422 or <strong>ENGL 308</strong>* or ENVS 408)</td>
<td>3 <em><strong>ENGL 308 Also double dips as Building Connections</strong></em></td>
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<tr>
<td>Elective or GE Core: Building Connections ***</td>
<td>3 <em><strong>students who completed ENGL308 will complete an elective</strong></em></td>
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<td>GE Core: Social Scientist</td>
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<td><strong>6th Semester -- Spring, Junior Year</strong></td>
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<td>Internship (BE 493)</td>
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<td>Elective</td>
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<td>GE Core: Building Connections</td>
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<td><strong>7th Semester -- Fall, Senior Year</strong></td>
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<td>Careers and Professionalism (BAT 496A, Fall only)</td>
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<td>Applied Biostatistics (BAT 413 Fall only)</td>
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<td>Biosystems Analytics (BAT 434, Fall only)</td>
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<td>GE Core: Building Connections</td>
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<td><strong>8th Semester -- Spring, Senior Year</strong></td>
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<td>Senior Capstone (BAT 498, Spring only)</td>
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<td>Remote Sensing Data and Methods (BAT 485, Spring only)</td>
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