## Biological Sciences, BS

**2024-2025 Catalog | catalog.uah.edu**

The Catalog is the final authority for all degree requirements.

Placement Requirements: [https://www.uah.edu/admissions/undergraduate/admitted-students/academic-placement](https://www.uah.edu/admissions/undergraduate/admitted-students/academic-placement)

<table>
<thead>
<tr>
<th>Completed</th>
<th>Course Number</th>
<th>Credits</th>
<th>Course Name</th>
<th>Semester Usually Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EH 101 &amp; EH 102</td>
<td>3</td>
<td>College Writing I &amp; II*</td>
<td>FA/SP/SU</td>
</tr>
<tr>
<td></td>
<td>EH 103</td>
<td>3</td>
<td>Accelerated College Writing*</td>
<td>SP</td>
</tr>
<tr>
<td></td>
<td>EH 105</td>
<td>3</td>
<td>Honors English Seminar*</td>
<td>FA</td>
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<tr>
<td></td>
<td>MA 112 or higher</td>
<td>3</td>
<td>Precalculus Algebra*</td>
<td>FA/SP/SU</td>
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<tr>
<td></td>
<td>PH 101/101L or PH 111/114</td>
<td>4</td>
<td>General Physics I + Lab</td>
<td>FA</td>
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<td></td>
<td>CH 101/105 or CH 121/125</td>
<td>3/1</td>
<td>Intro to Chemistry + Lab</td>
<td>FA/SP/SU</td>
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<tr>
<td></td>
<td>CH 201/205 or CH 331/335</td>
<td>3/1</td>
<td>Elem Organic Chemistry + Lab</td>
<td>FA/SP/SU</td>
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<tr>
<td></td>
<td>EH 301</td>
<td>3</td>
<td>Technical Writing</td>
<td>FA/SP/SU</td>
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<td></td>
<td>FYE 101S</td>
<td>1</td>
<td>Charger Success - Science</td>
<td>FA</td>
</tr>
<tr>
<td></td>
<td>CH 201/205 or CH 331/335</td>
<td>3/1</td>
<td>Applied Statistics Course</td>
<td>FA/SP</td>
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<td></td>
<td>BYS 490</td>
<td>2</td>
<td>Senior Capstone</td>
<td>FA/SP/SU</td>
</tr>
</tbody>
</table>

### Biological Sciences Core 18 credits

- BYS 119/121: Principles of Biology + Lab
- BYS 120/122: Organisinal Biology + Lab
- BYS 219/221: Genetics and Evolution + Lab
- BYS 300/300L: Cell & Developmental Biology + Lab
- BYS 490: Senior Capstone

### Biological Sciences Electives

Choose 18 credits

Choose enough BYS courses to reach 18 credit hours.

### General Electives

Elective courses can be taken from any department and do not have to be taken in your major or minor.

**Total = 120+ credits to graduate**

36 of the 120 credits must be taken at 300-level or higher.

All prerequisite classes must be completed with a "C-" or higher grade.

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Charger Foundations Choices

I. Freshman Composition
Choose 1
College Writing I & II (EH 101 & 102) or (EH 101 + 101L & EH 102)
Honors English Seminar (EH 105; equivalent to EH 101 & EH 102)
Accelerated College Writing (EH 103; equivalent to EH 101 & EH 102)

II. Fine Arts
Choose 1
Ancient to Medieval Art (ARH 100)
Renaissance to Modern Art (ARH 101)
World Art (ARH 103)
Introduction to Drawing (ARS 160)
Intro to Film Studies (FMA 123)
Intro to Music Literature (MU 100)
Theatre Appreciation (TH 122)

II. Humanities (Literature)
Choose 1
Readings Literature/Culture I (EH 207)
Readings Literature/Culture II (EH 208)
Literature Without Borders (EH 241)
Mythology (EH 242)

II. Humanities (Non-Literature)
Choose 1
Ancient to Medieval Art (ARH 100)
Renaissance to Modern Art (ARH 101)
World Art (ARH 103)
Introduction to Drawing (ARS 160)
Ancient & Medieval Worlds (AMS 229)
Public Speaking (CM 113)
Intro to Film Studies (FMA 123)
Intro to Music Literature (MU 100)
Intro to Philosophy (PHL 101)

III. Mathematics
Precalculus Algebra (MA 112) or higher

III. Natural Sciences (Lab) Sequence
Intro to Chemistry I (CH 101/105) or General Chemistry I (CH 121/125 or CH 121M/125M)
General Physics I (PH 101/101L) or General Physics with Calculus I (PH 111/114)

IV. History
Choose 1
World History I (HY 103)
World History II (HY 104)
United States to 1877 (HY 221)
United States Since 1877 (HY 222)

IV. Social & Behavioral Sciences
Choose 2
World Geography (AES 105)
Human Geography (AES 110)
Global systems & Cultures (GS 200)
Macroeconomics (ECN 142)
Microeconomics (ECN 143)
American Govt (PSC 101)
Politics & Foreign Govt (PSC 102)
International Relations (PSC 260)
General Psychology (PY 101)
Life Span Development (PY 201)
Intro to Sociology (SOC 100)
Analysis of Social Problems (SOC 102)
Intro to Criminology (SOC 103)

Students must take one literature and one history course.
Students must also take either a second literature or history course to complete a sequence.

Area II Sequence
Take a 2nd Literature AND History or Social & Behavioral Science

OR

Area IV Sequence
Take a 2nd History AND Fine Arts or Non-Literature Humanities or Literature Humanities

Area V. Choices

Computer Programming
Choose 1
Intro to C Programming (CS 102)
Intro to CS Using Python (CS 104)
Coding Algorithms for Biology (BYS 205)
Biological Data Skills (BYS 431)

Applied Statistics
Choose 1
Elements of Statistics Analysis (MA 281)
Probability & Statistics (MA 385)
Psychological Statistics (PY 300)
Statistics for Social Sciences (SOC 303)

Optional Concentrations Offered

<table>
<thead>
<tr>
<th>Biochemistry Concentration</th>
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<tbody>
<tr>
<td>Ecology &amp; Evolution Concentration</td>
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<tr>
<td>Pre-Professional Health Careers Concentration</td>
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Please work with your Academic Advisor to determine substitute/additional courses to take if you are interested in a degree with a specific concentration.