# 2023 - 2024 Major Map

## Biological Sciences (Biology and Society), BS

*School/College: The College of Liberal Arts and Sciences*

**LABSCBS**

### Term 1 - A 0 - 8 Credit Hours Critical course signified by 🔴

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU 101-LA: The ASU Experience</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 181: General Biology I (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

ENG 101 or ENG 102: First-Year Composition OR
ENG 105: Advanced First-Year Composition OR
ENG 107 or ENG 108: First-Year Composition

Term hours subtotal: 8

### Term 1 - B 8 - 15 Credit Hours Critical course signified by 🔴

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 182: General Biology II (SG)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

ENG 101 or ENG 102: First-Year Composition OR
ENG 105: Advanced First-Year Composition OR
ENG 107 or ENG 108: First-Year Composition

Term hours subtotal: 7

### Term 2 - A 15 - 22 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 113: General Chemistry I (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>STP 231: Statistics for Life Science (CS)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 7

### Term 2 - B 22 - 29 Credit Hours Critical course signified by 🔴

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 116: General Chemistry II (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>MAT 251: Calculus for Life Sciences (MA)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

Complete ENG 101 OR ENG 105 OR ENG 107 course(s).

Term hours subtotal: 7

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- **ASU 101 or college-specific equivalent**
  - First-Year Seminar required of all first-year students

- View ASU Online first-year student registration information [here](#).

- Create a resume and [Handshake account](#) with the Career & Professional Development Center to explore research or internship opportunities.

- Explore extracurriculars (i.e. service learning, community service, internships, research, student involvement, shadowing, etc.)

- Join a [student organization](#).

- Select your career interest area and play me3@ASU.

- Students transferring General Statistics (STP 226 or PSY 230) will fulfill STP 231 requirement.

- If interested in health-related professional programs, research the [timeline](#) for admissions preparation and [general admission requirements](#).

- Explore extracurriculars (i.e. service learning, community service, internships, research, student involvement, shadowing, etc.)
Students transferring Calculus (MAT 270 or MAT 210) will fulfill MAT 251 requirement.

### Term 3 - A 29 - 36 Credit Hours

<table>
<thead>
<tr>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ BIO 340: General Genetics</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Social-Behavioral Sciences (SB) AND Global Awareness (G)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 7

Due to lower-division prerequisites, pre-health students are encouraged to choose upper division General Studies (HU or SB) and The College Science and Society courses. It is not recommended to take more than two lab courses in a term. Review the Career Guide for ASU Online students to learn about available career planning resources.

### Term 3 - B 36 - 42 Credit Hours

<table>
<thead>
<tr>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ BIO 311: Biology and Society OR HPS 340: Biology and Society</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complete First-Year Composition requirement.
Complete Mathematics (MA) requirement.

Term hours subtotal: 6

Meet with the Career & Professional Development Center to learn how to develop professional skills.

### Term 4 - A 42 - 48 Credit Hours

<table>
<thead>
<tr>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ BIO 345: Evolution</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 6

Students are encouraged to explore research options through BIO 307, 314, 414, plus 484, 492, or 495. Develop your professional online presence.

### Term 4 - B 48 - 54 Credit Hours

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities, Arts and Design (HU) AND Historical Awareness (H)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 6

### Term 5 - A 54 - 60 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ Upper Division Science in Global Society Course</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 6

If interested in health-related professional programs, use ASU's Health Professions Advising to prepare for application. Meet with your advisor to discuss ways to maximize your remaining time at ASU (i.e. pre-health; 4+1 Masters Programs; study abroad). Explore graduate school or full-time career opportunities.

### Term 5 - B 60 - 66 Credit Hours

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science and Society Elective</td>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>Social-Behavioral Sciences (SB)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 6

Network in your career interest area.
## Term 6 - A 66 - 75 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Bioethics Course</td>
<td>3</td>
<td>C</td>
<td>• Work with your academic advisor to align your additional major requirement and major elective courses with your career aspirations</td>
</tr>
<tr>
<td>Literacy and Critical Inquiry (L)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td><strong>9</strong></td>
<td></td>
<td></td>
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</table>

## Term 6 - B 75 - 81 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division History of Science Course</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Upper Division Literacy and Critical Inquiry (L)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td><strong>6</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Term 7 - A 81 - 87 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Major Biological Sciences Elective</td>
<td>3</td>
<td>C</td>
<td>• Students are encouraged to explore research options through BIO 307, 314, 414, plus 484, 492, or 495.</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td>• Meet with your advisor to verify remaining degree requirements have been met prior to Term 8</td>
</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td><strong>6</strong></td>
<td></td>
<td>• Explore or apply for full-time career opportunities or graduate school</td>
</tr>
</tbody>
</table>

## Term 7 - B 87 - 93 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Philosophy of Science Course</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td><strong>6</strong></td>
<td></td>
<td></td>
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</table>

## Term 8 - A 93 - 101 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Major Biological Sciences Elective</td>
<td>3</td>
<td>C</td>
<td>• Explore other resources available through ASU's Career and Professional Development Center</td>
</tr>
<tr>
<td>Upper Division Elective</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td><strong>8</strong></td>
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## Term 8 - B 101 - 107 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Major Biological Sciences Elective</td>
<td>3</td>
<td>C</td>
<td>• Gather professional references</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td><strong>6</strong></td>
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<td></td>
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</tbody>
</table>

## Term 9 - A 107 - 114 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Major Biological Sciences Elective</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td><strong>7</strong></td>
<td></td>
<td></td>
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</table>

## Term 9 - B 114 - 120 Credit Hours

<table>
<thead>
<tr>
<th>Necessary course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Major Biological Sciences Elective</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td><strong>6</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Page 3
All students pursuing a BS or BSP degree in The College of Liberal Arts and Sciences must complete two courses from the Science and Society list found at https://thecollege.asu.edu/resources/science-society. At least one of the two courses must be upper-division and students must earn a C or better in the courses. Both Science and Society courses (i.e., all six credits) may count towards any major, minor, related fields, and ASU General Studies requirements.

- First-Year Composition: All students are placed in ENG 101 unless submission of SAT, ACT, Accuplacer, IELTS, or TOEFL score, or college-level transfer credit or test credit equivalent to ASU's first-year composition course(s), determine otherwise. Students on Polytechnic, Downtown Phoenix and West Campuses are encouraged to complete the Directed Self-Placement survey to choose the first-year composition option they believe best suits their needs. Visit: https://cisa.asu.edu/DSP

- Mathematics Placement Assessment score determines placement in first mathematics course.

- Please keep in mind that the applicability of a specific transfer course toward an ASU degree program depends on the requirements of the department, division, college or school in which you are enrolled at ASU. Transfer agreements that guarantee the completion of university level requirements do not necessarily meet college and major requirements. Please consult with an advisor for more information.

<table>
<thead>
<tr>
<th>Major Biological Sciences Elective Courses</th>
<th>Bioethics Courses</th>
<th>History of Science Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH 361: Advanced Principles of Biochemistry</td>
<td>BIO 312: Bioethics (HU)</td>
<td>BIO 316: History of Biology: Conflicts and Controversies (H) or HPS 330: History of Biology: Conflicts and Controversies (H)</td>
</tr>
<tr>
<td>BIO OR HPS 3** Elective</td>
<td>BIO 416: Biomedical Research Ethics (L) or HPS 410: Biomedical Research Ethics (L)</td>
<td>BIO 318: History of Medicine (HU &amp; H) or HPS 331: History of Medicine (HU &amp; H)</td>
</tr>
<tr>
<td>BIO OR HPS 4** Elective</td>
<td></td>
<td>HPS 322: History of Science I (HU &amp; H)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HPS 323: History of Science II (HU &amp; H)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Philosophy of Science Courses</th>
<th>Environmental Ethics, Conservation and Society Courses</th>
<th>Science in Global Society Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPS 314: Philosophy of Science (HU) or PHI 314: Philosophy of Science (HU)</td>
<td>BIO 322: Conservation of Biodiversity</td>
<td>BIO 304: Plants and Civilization (L) or ENV 302: Plants and Civilization (L)</td>
</tr>
<tr>
<td>BIO 324: Environmental Ethics (HU)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

- First-Year Composition: All students are placed in ENG 101 unless submission of SAT, ACT, Accuplacer, IELTS, or TOEFL score, or college-level transfer credit or test credit equivalent to ASU's first-year composition course(s), determine otherwise. Students on Polytechnic, Downtown Phoenix and West Campuses are encouraged to complete the Directed Self-Placement survey to choose the first-year composition option they believe best suits their needs. Visit: https://cisa.asu.edu/DSP

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**Total Hours:** 120

**Upper Division Hours:** 45 minimum

**Major GPA:** 2.00 minimum

**Cumulative GPA:** 2.00 minimum

**Total hrs at ASU:** 30 minimum

**Hrs Resident Credit for Academic Recognition:** 56 minimum

**Total Community College Hrs:** 64 maximum

**Total College Residency Hrs:** 12 minimum

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**General University Requirements Legend**

**General Studies Core Requirements:**

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)
General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed next to courses on the major map were valid for the 2023 - 2024 academic year. Please refer to the course catalog for current General Studies designations at the time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.