## 2021 - 2022 Major Map
### Biological Sciences (Biology and Society), BS

**School/College:** The College of Liberal Arts and Sciences  
**Location:** Online, ASU Local@Los Angeles

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### Term 1 - A 0 - 8 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASU 101-LA: The ASU Experience</strong></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BIO 181: General Biology I (SQ)</strong></td>
<td>4</td>
<td>C</td>
<td>• ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students</td>
</tr>
<tr>
<td><strong>ENG 101 or ENG 102: First-Year Composition OR</strong></td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td><strong>ENG 105: Advanced First-Year Composition OR</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>ENG 107 or ENG 108: First-Year Composition</strong></td>
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**Term hours subtotal:** 8

### Term 1 - B 8 - 15 Credit Hours

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<tbody>
<tr>
<td><strong>BIO 182: General Biology II (SG)</strong></td>
<td>4</td>
<td>C</td>
<td>• View ASU Online first-year student registration information here.</td>
</tr>
<tr>
<td><strong>ENG 101 or ENG 102: First-Year Composition OR</strong></td>
<td>3</td>
<td>C</td>
<td>• Create a resume &amp; Handshake account with the Career &amp; Professional Development Center to explore research or internship opportunities</td>
</tr>
<tr>
<td><strong>ENG 105: Advanced First-Year Composition OR</strong></td>
<td></td>
<td></td>
<td>• Explore extracurriculars (i.e. service learning, community service, internships, research, student involvement, shadowing, etc.)</td>
</tr>
<tr>
<td><strong>ENG 107 or ENG 108: First-Year Composition</strong></td>
<td></td>
<td></td>
<td>• Join a student organization</td>
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**Term hours subtotal:** 7

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

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<thead>
<tr>
<th>Course</th>
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<th>Notes</th>
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</thead>
<tbody>
<tr>
<td><strong>CHM 113: General Chemistry I (SQ)</strong></td>
<td>4</td>
<td>C</td>
<td>• Select your career interest area and play me3@ASU.</td>
</tr>
<tr>
<td><strong>STP 231: Statistics for Life Science (CS)</strong></td>
<td>3</td>
<td>C</td>
<td>• Students transferring General Statistics (STP 226 or PSY 230) will fulfill STP 231 requirement</td>
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**Term hours subtotal:** 7

### Term 2 - B 22 - 29 Credit Hours

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<th>Course</th>
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<th>Notes</th>
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<tbody>
<tr>
<td><strong>CHM 116: General Chemistry II (SQ)</strong></td>
<td>4</td>
<td>C</td>
<td>• If interested in health-related professional programs, research the timeline for admissions preparation and general admission requirements.</td>
</tr>
<tr>
<td><strong>MAT 251: Calculus for Life Sciences (MA)</strong></td>
<td>3</td>
<td>C</td>
<td>• Explore extracurriculars (i.e. service learning, community service, internships, research, student involvement, shadowing, etc.)</td>
</tr>
<tr>
<td><strong>Complete ENG 101 OR ENG 105 OR ENG 107 course(s).</strong></td>
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**Term hours subtotal:** 7
Students transferring Calculus (MAT 270 or MAT 210) will fulfill MAT 251 requirement

<table>
<thead>
<tr>
<th>Term 3 - A 29 - 35 Credit Hours</th>
<th>Hours</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>BIO 311: Biology and Society OR HPS 340: Biology and Society</td>
<td>3</td>
<td>C</td>
<td>- 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.</td>
</tr>
<tr>
<td>Social-Behavioral Sciences (SB) AND Global Awareness (G)</td>
<td>3</td>
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<td>Term hours subtotal: 6</td>
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<table>
<thead>
<tr>
<th>Term 3 - B 35 - 42 Credit Hours Critical course signified by ⚠️</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>BIO 340: General Genetics</td>
<td>4</td>
<td>C</td>
<td>- Meet with the Career &amp; Professional Development Center to learn how to develop professional skills.</td>
</tr>
<tr>
<td>Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)</td>
<td>3</td>
<td></td>
<td>Complete First-Year Composition requirement.</td>
</tr>
<tr>
<td>Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)</td>
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<td></td>
<td>Complete Mathematics (MA) requirement.</td>
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<td>Term hours subtotal:</td>
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<tr>
<th>Term 4 - A 42 - 48 Credit Hours Critical course signified by ⚠️</th>
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<tbody>
<tr>
<td>BIO 345: Evolution</td>
<td>3</td>
<td>C</td>
<td>- Develop your professional online presence.</td>
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<tbody>
<tr>
<td>Humanities, Arts and Design (HU) AND Historical Awareness (H)</td>
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<tr>
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<th>Term 5 - A 54 - 60 Credit Hours Necessary course signified by ⭐️</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Upper Division Science in Contemporary Society Interface Course</td>
<td>3</td>
<td>C</td>
<td>- 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</td>
</tr>
<tr>
<td>Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)</td>
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<th>Term 5 - B 60 - 66 Credit Hours</th>
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<tr>
<td>Science and Society Elective</td>
<td>3</td>
<td>C</td>
<td>- Network in your career interest area.</td>
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<tr>
<td>Social-Behavioral Sciences (SB)</td>
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<tr>
<th>Term 6 - A 66 - 74 Credit Hours Necessary course signified by ⭐️</th>
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<td></td>
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<tr>
<td>Hours</td>
<td>Grade</td>
<td>Notes</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>2</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>3</td>
<td></td>
<td>• Use Handshake to research employment opportunities</td>
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### Term 6 - B 74 - 80 Credit Hours

#### Necessary course signified by ★

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<thead>
<tr>
<th>Hours</th>
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<tr>
<td>Upper Division Additional Major Core Elective Courses</td>
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Term hours subtotal: 6

### Term 7 - A 80 - 87 Credit Hours

#### Necessary course signified by ★

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<tr>
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Term hours subtotal: 7

### Term 7 - B 87 - 93 Credit Hours

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<tr>
<td>Upper Division Ethics Interface Course</td>
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Term hours subtotal: 6

### Term 8 - A 93 - 100 Credit Hours

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Term hours subtotal: 7

### Term 8 - B 100 - 107 Credit Hours

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<tr>
<td>Upper Division Major Biological Sciences Elective</td>
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<td>C</td>
</tr>
<tr>
<td>BIO 414: Research Colloquium in Biology and Society II (L)</td>
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Term hours subtotal: 7

### Term 9 - A 107 - 114 Credit Hours

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<tr>
<td>Upper Division Major Biological Sciences Elective</td>
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Term hours subtotal: 7

### Term 9 - B 114 - 120 Credit Hours

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<tbody>
<tr>
<td>Upper Division History and Philosophy of Science Interface Course</td>
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Term hours subtotal: 7

### Term 10 - A 120 - 127 Credit Hours

#### Necessary course signified by ★

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<th>Hours</th>
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<tr>
<td>Upper Division Major Biological Sciences Elective</td>
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Term hours subtotal: 7

### Term 10 - B 127 - 134 Credit Hours

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<tbody>
<tr>
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Term hours subtotal: 7

### Term 11 - A 134 - 141 Credit Hours

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Term hours subtotal: 7

### Term 11 - B 141 - 148 Credit Hours

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<tr>
<td>Upper Division History and Philosophy of Science Interface Course</td>
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Term hours subtotal: 7

### Term 12 - A 148 - 155 Credit Hours

#### Necessary course signified by ★

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<td>Upper Division Major Biological Sciences Elective</td>
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Term hours subtotal: 7

### Term 12 - B 155 - 162 Credit Hours

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Term hours subtotal: 7

### Term 13 - A 162 - 169 Credit Hours

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Term hours subtotal: 7

### Term 13 - B 169 - 176 Credit Hours

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Term hours subtotal: 7

### Term 14 - A 176 - 183 Credit Hours

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Term hours subtotal: 7

### Term 14 - B 183 - 190 Credit Hours

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Term hours subtotal: 7

### Term 15 - A 190 - 197 Credit Hours

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Term hours subtotal: 7

### Term 15 - B 197 - 204 Credit Hours

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Term hours subtotal: 7

### Term 16 - A 204 - 211 Credit Hours

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Term hours subtotal: 7

### Term 16 - B 211 - 218 Credit Hours

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Term hours subtotal: 7

### Term 17 - A 218 - 225 Credit Hours

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Term hours subtotal: 7

### Term 17 - B 225 - 232 Credit Hours

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Term hours subtotal: 7

### Term 18 - A 232 - 239 Credit Hours

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Term hours subtotal: 7

### Term 18 - B 239 - 246 Credit Hours

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Term hours subtotal: 7

### Term 19 - A 246 - 253 Credit Hours

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<td>Upper Division Major Biological Sciences Elective</td>
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Term hours subtotal: 7

### Term 19 - B 253 - 260 Credit Hours

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Term hours subtotal: 7

### Term 20 - A 260 - 267 Credit Hours

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Term hours subtotal: 7

### Term 20 - B 267 - 274 Credit Hours

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Term hours subtotal: 7

### Term 21 - A 274 - 281 Credit Hours

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<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>
</tr>
<tr>
<td>Elective</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 7

### Term 21 - B 281 - 288 Credit Hours

#### Necessary course signified by ★

<table>
<thead>
<tr>
<th>Hours</th>
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<tbody>
<tr>
<td>Upper Division History and Philosophy of Science Interface Course</td>
<td>3</td>
<td>C</td>
</tr>
</tbody>
</table>

Term hours subtotal: 7
- 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.

<table>
<thead>
<tr>
<th>Science in Contemporary Society Interface Courses</th>
<th>Major Biological Sciences Elective Courses</th>
<th>Additional Major Core Elective Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASB 353: Death and Dying in Cross-Cultural Perspective ((HU or SB) &amp; G)</td>
<td>BIO OR HPS 3** Elective</td>
<td>ASB 353: Death and Dying in Cross-Cultural Perspective ((HU or SB) &amp; G)</td>
</tr>
<tr>
<td>BIO 304: Plants and Civilization (L) or ENV 302: Plants and Civilization (L)</td>
<td>BIO OR HPS 4** Elective</td>
<td>BIO 357: Society, Drugs and Health (SB &amp; G)</td>
</tr>
<tr>
<td>BIO 317: History of Science II (HU &amp; H) or HPS 323: History of Science II (HU &amp; H)</td>
<td>BCH 361: Advanced Principles of Biochemistry</td>
<td>BIO 304: Plants and Civilization (L) or ENV 302: Plants and Civilization (L)</td>
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<td>BIO 322: Conservation of Biodiversity</td>
<td></td>
<td>BIO 312: Bioethics (HU) or PHI 320: Bioethics (HU)</td>
</tr>
<tr>
<td>BIO 412: Conservation in Practice or SOS 412: Conservation in Practice</td>
<td></td>
<td>BIO 316: History of Biology: Conflicts and Controversies (H) or HPS 330: History of Biology: Conflicts and Controversies (H)</td>
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<tr>
<td>WST 340: Gender, Science, and Technology (SB)</td>
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<th>History and Philosophy of Science Interface Courses</th>
<th>Ethics Interface Courses</th>
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<td>ASB 357: Society, Drugs and Health (SB &amp; G)</td>
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<tr>
<td>BIO 316: History of Biology: Conflicts and Controversies (H) or HPS 330: History of Biology: Conflicts and Controversies (H)</td>
<td>BIO 324: Environmental Ethics (HU) or PHI 310: Environmental Ethics (HU)</td>
</tr>
<tr>
<td></td>
<td>BIO 416: Biomedical Research Ethics (L) or HPS 410: Biomedical Research Ethics (L)</td>
</tr>
<tr>
<td></td>
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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](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.

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 on the major map are current for the 2021 - 2022 academic year.