BIOLOGICAL SCIENCES BA

More Information

E-advising Tools

Students are encouraged to use the interactive e-advising tools that have been designed to help them graduate within four years. These tools can be accessed through the Student Center.

The Bachelor of Arts in Biological Sciences is designed for students who plan to use biology as a foundation for healthcare careers (pre-physician’s assistant, pre-nursing, pre-occupational therapist, etc.). It is also suitable for students interested in the pharmaceutical industry, biomedical product management, or health regulatory positions. Note that while this BA may serve some pre-medical students (including osteopathy, dentistry, and optometry), the BS degrees in biological sciences (cellular and molecular biology option) or microbiology may provide better preparation, but can only be completed in four years by students with strong science backgrounds. Students are urged to consult with their advisors about specific requirements. This degree is also appropriate for students pursuing single subject matter preparation in science with a concentration in biological sciences.

The BA in biological sciences requires 60 units in the major, leaving room for additional coursework needed for students planning specific careers, especially if post-baccalaureate training is required. Students are urged to meet with an advisor to help identify additional recommended courses, as well as requirements for service time in healthcare settings.

Grading Requirement

All courses taken to fulfill program course requirements must be taken for a letter grade except those courses specified by the department as credit/no credit grading only.

Course Requirements for the Major: 60 units

See Bachelor’s Degree Requirements (https://catalog.csuchico.edu/undergraduate-requirements/bachelors-degree-requirements/) for complete details on general degree requirements. A minimum of 39 units, including those required for the major, must be upper division.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Division</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 103</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 104</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 109</td>
<td>The Biological University Experience</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 161</td>
<td>Principles of Ecological, Evolutionary, Organismal Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 162</td>
<td>Principles of Cellular and Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 163</td>
<td>Principles of Physiology and Development</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 211</td>
<td>Allied Health Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 108</td>
<td>Organic Chemistry for Applied Sciences</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>General Chemistry I¹</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>General Chemistry II¹</td>
<td>4</td>
</tr>
<tr>
<td>MATH 105</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Upper Division</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 303</td>
<td>Human Genetics²</td>
<td>3</td>
</tr>
</tbody>
</table>

or BIOL 360

BIOL 311W Pandemics, Germs, and Society (W) 3
BIOL 492 Seminars in Biological Science 1
CHEM 350 Introductory Biochemistry 3
CHEM 350L Introductory Biochemistry Laboratory 1
Select three units from the following: 3
BIOL 302W Evolution (W)
BIOL 322W Science and Human Values (W)
CHLD 333W Children’s Gender and Sexuality Development (W)
NURS/MCGS 326W Gender and Sexuality Perspectives on Disease (W)
PHIL 327W Health Ethics (W)
Select up to six units from the following: 6
BIOL 318 Biology of Childhood
BIOL 323 Biology of Sex
BIOL 345 Health and Lifestyle Diseases
BIOL 416 Vertebrate Physiology
BIOL 460 Histology
BIOL 462 Hematology
NFSC 310 Global Nutrition
PHHA 321 Community Health
PSYC 323 Health Psychology

Total Units 60

¹ CHEM 107 may be substituted for CHEM 111 and CHEM 112 for some students. Please check with your advisor.
² If BIOL 360 (four units) is taken instead of BIOL 303 (three units), choose sufficient units in the following selections to ensure 60 units in the major.
³ Choose sufficient units to ensure at least 60 in the major. Other upper division Biological Sciences (BIOL) courses may be taken with faculty permission.

Electives Requirement

To complete the total units required for the bachelor’s degree, select additional elective courses from the total University offerings. You should consult with an advisor regarding the selection of courses which will provide breadth to your University experience and possibly apply to a supportive second major or minor.

See Bachelor’s Degree Requirements (https://catalog.csuchico.edu/undergraduate-requirements/bachelors-degree-requirements/) for complete details on general degree requirements. A minimum of 39 units, including those required for the major, must be upper division.

General Education Requirements: 48 units

See General Education (https://catalog.csuchico.edu/colleges-departments/undergraduate-education/general-education/) and the Class Schedule (http://www.csuchico.edu/schedule/) for the most current information on General Education Requirements and course offerings.

This major has approved GE modification(s). See below for information on how to apply these modification(s).
• BIOL 360 is an approved major course substitution for Upper Division Scientific Inquiry and Quantitative Reasoning (UD-B).

The following General Education courses are recommended to support students in the BA in biological sciences:

• ANTH 113 or SOCI 100 for Social Sciences (D).
• CHLD 252, NFSC 100, or PSYC 101 for Lifelong Learning and Self-Development (E).

**Diversity Course Requirements: 6 units**

You must complete a minimum of two courses that focus primarily on cultural diversity. At least one course must be in US Diversity (USD) and at least one in Global Cultures (GC). See Diversity Requirements (https://catalog.csuchico.edu/undergraduate-requirements/diversity-requirements/) for a full list of courses. Most courses taken to satisfy these requirements may also apply to General Education (https://catalog.csuchico.edu/colleges-departments/undergraduate-education/general-education/).

**Upper-Division Writing Requirement**

Writing Across the Curriculum (EM 17-009 (http://www.csuchico.edu/prs/EMs/2017/17-009.shtml)) is a graduation requirement and may be demonstrated through satisfactory completion of four Writing (W) courses, two of which are designated by the major department. See Mathematics/Quantitative Reasoning and Writing Requirements (https://catalog.csuchico.edu/undergraduate-requirements/mathematicsquantitative-reasoning-writing-requirements/) for more details on the four courses. The first of the major designated Writing (W) courses is listed below.

• BIOL 302W Evolution (W)
• BIOL 322W Science and Human Values (W)
• CHLD 333W Children’s Gender and Sexuality Development (W)
• NURS 326W/MCGS 326W Gender and Sexuality Perspectives on Disease (W)
• PHIL 327W Health Ethics (W)

The second major-designated Writing course is the Graduation Writing Assessment Requirement (GW) (EO 665 (https://calstate.policystat.com/policy/9585618/latest/)). Students must earn a C- or higher to receive GW credit. The GE Written Communication (A2) (https://catalog.csuchico.edu/colleges-departments/undergraduate-education/general-education/#A2) requirement must be completed before a student is permitted to register for a GW course.