apply the scientific method to questions
access the primary literature, identify

demonstrate proficiency in the experi-
mental techniques and methods of analysis
appropriate for their area of specialization
within biology.

Zoology students at Humboldt can take ad-
vantage of our well-developed vertebrate and
invertebrate museums. Nearby coastlines,
forests, and mountains offer opportunities
for studying animals in their native habitats;
we also house animals in on-campus quar-
ters. Molecular biology facilities and electron
microscopes are available for student use.

Students interested in marine life have use
of Humboldt’s marine laboratory, located
in nearby Trinidad, and the university’s re-
search vessel, the Coral Sea.

Zoology graduates pursue such careers as:
technical writer, zookeeper, environmental
consultant, entomologist, herpetologist,
mammalogist, health technician, animal
nutritionist, laboratory technician, museum
curator, science librarian.

Preparation
In high school take biology, chemistry, and
physics (with labs, if possible) plus algebra,
geometry, and trigonometry.

REQUIREMENTS FOR THE MAJOR
For a description of degree requirements to
be fulfilled in addition to those listed below
for the major, please see “The Bachelor’s
Degree” section of the catalog, pp. 67-82.

Unit Requirements
Total units in the major: 72-78
Total units required for the degree: 120

Special Grade Requirement
Students who receive a grade below a C- in
any prerequisite course will require instruc-
tor approval for enrollment.

Lower Division (34-37 units)

BIOL 105 [4] Principles of Biology
CHEM 110 [5] General Chemistry II
MATH 105 [3] Calculus for the Biological
Sciences & NR, or

Modern Physics, or
PHYX 118 [1] College Physics: Biological
Applications

STAT 109 [4] Introductory Biostatistics
ZOOL 110 [4] Introductory Zoology

Upper Division (38-41 units)

BIOL 350 [3] Cell Biology

Animal Structure & Function
Complete one course:

Invertebrate Diversity
Complete one course:
ZOOL 314 [5] Invertebrate Zoology
ZOOL 316 [3] Freshwater Aquatic Invertebrates

Vertebrate Diversity
Complete one course.
FISH 310 [4] Ichthyology

Upper Division Life Sciences Electives
Complete two courses, totaling at least 5
units, chosen in consultation with your advis-
or. Possible courses include the following
list, or any animal structure & function;
invertebrate or vertebrate diversity course
listed above, if not already taken.
BIOL 433 [3] Microbial Ecology and
Discussion
BIOL 440 [2] Molecular Genetics Lab
BIOL 450 [2] Cell Biology Lab
BIOL 490 [1-2] Senior Thesis
BIOL 499 [1-2] Directed Study
BIOL 554 [3] Plant/Animal Interactions
Electron Microscopy
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BOT 350</td>
<td>(4) Plant Taxonomy</td>
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<tr>
<td>CHEM 438</td>
<td>(4) Biochemistry</td>
<td></td>
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<tr>
<td>FISH 380</td>
<td>(3) Techniques in Fishery Biology</td>
<td></td>
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<tr>
<td>FISH 434</td>
<td>(4) Ecology of Freshwater Fish</td>
<td></td>
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<tr>
<td>FISH 435</td>
<td>(4) Ecology of Marine Fish</td>
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<tr>
<td>FISH 471</td>
<td>(3) Fish Disease</td>
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<tr>
<td>FISH 474</td>
<td>(4) Conservation Genetics of Fish and Wildlife</td>
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<tr>
<td>WLDF 450</td>
<td>(3) Principles of Wildlife Diseases</td>
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<tr>
<td>WLDF 460</td>
<td>(3) Conservation Biology</td>
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<tr>
<td>ZOOL 325</td>
<td>(4) Advanced Behavioral Neuroscience</td>
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<tr>
<td>ZOOL 530</td>
<td>(3) Benthic Ecology</td>
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<tr>
<td>ZOOL 552</td>
<td>(3) Advanced Invertebrate Zoology</td>
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<tr>
<td>ZOOL 556</td>
<td>(4) Marine Mammalogy</td>
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<tr>
<td>ZOOL 560</td>
<td>(4) Advanced Mammalogy</td>
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**REQUIREMENTS FOR THE MINOR**

Total units required for the minor: **22**

**Lower Division (8 units)**

<table>
<thead>
<tr>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>(4) Principles of Biology</td>
<td></td>
</tr>
<tr>
<td>ZOOL 110</td>
<td>(4) Introductory Zoology</td>
<td></td>
</tr>
</tbody>
</table>

**Upper Division (14 units)**

*Complete 14 units of upper division zoology courses approved by the zoology minor advisor. Of these 14 units, a minimum of 6 units must be courses NOT used to satisfy major requirements.*