ZOOLOGY MAJOR

GRADUATION REQUIREMENTS
1. Complete all Zoology Core, Major Electives, Physical Sciences/Math, and AUCC Requirements.
2. Minimum of 120 total credits.
3. Minimum of 42 upper division credits (300 level or above).
   *30 upper division credits must be in-residence at CSU
4. Minimum of 2.0 CUMULATIVE GPA.

ALL UNIVERSITY CORE CURRICULUM (AUCC)
Must earn at least a 2.0 cumulative GPA in the AUCC courses.

Category 1
1A Written Communication: CO 150 (3 credits)
1C Diversity, Equity, and Inclusion (3 credits)

Category 2
Additional Communication (3 credits)
Advanced Writing

Category 3
3B Arts/Humanities (6)
3C Social/Behavioral (3)
3D Historical Perspectives (3)

Category 4: Depth and Integration
LIFE 320 and BZ 350 (see CORE Requirements below)

GRADE REQUIREMENTS
Must earn at least a C- in all Biology Core & Major Elective courses. This also applies to courses taken as substitutions for these requirements.

ZOOLGY CORE REQUIREMENTS
LIFE 102 Attributes of Living Systems (4)
LIFE 103 Biology of Organisms (4)
BZ 220 Introduction to Evolution (3)
BZ 212 Animal Bio: Invertebrates (4)
BZ 214 Animal Bio: Vertebrates (4)
BZ 310 Cell Biology (4)
BZ 350 Molecular & General Genetics (4)
LIFE 320 Ecology (3)

MAJOR ELECTIVES
Select a minimum of 15 credits of electives listed on back of the check sheet.

PHYSICAL SCIENCES/MATH

CHEMISTRY
CHEM 111 (4) _________ CHEM 112 (1) _________
   AND
CHEM 113 (3) _________ CHEM 114 (1) _________

ORGANIC CHEMISTRY
CHEM 245 (4) _________ CHEM 246 (1) _________
   OR
CHEM 341 (3) _________ CHEM 343 (3) _________
CHEM 344 (2) _________

BIOCHEMISTRY
BC 351 (4) _________
   OR
BC 401 (3) _________ BC 403 (3) _________

PHYSICS
PH 121 (5) _________ PH 122 (5) _________
   OR
PH 141 (5) _________ PH 142 (5) _________

CALCULUS
MATH 155 (4) _________ OR MATH 160 (4) _________

STATISTICS
STAT 301 (3) _________ OR STAT 307 (3) _________

*With approval of the Curriculum Committee, up to 3 credits of the following can be applied toward a student’s major electives:
*BZ 384 Supervised College Teaching
*BZ 487 Internship
*BZ 495 Independent Study
*BZ 498 Laboratory or Field Research
The following is a list of Zoology-related electives that can be used to fulfill the Major Electives requirement:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANEQ 320</td>
<td>Principles of Animal Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ANEQ 322</td>
<td>Pet Nutrition</td>
<td>2</td>
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<tr>
<td>ANEQ 323</td>
<td>Zoo Nutrition</td>
<td>2</td>
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<tr>
<td>ANTH 470</td>
<td>Paleontology Field School</td>
<td>4</td>
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<tr>
<td>BSPM 302</td>
<td>Applied &amp; Gen Entomology</td>
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<tr>
<td>BSPM 303A</td>
<td>Applied &amp; Gen Entomology Lab</td>
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<tr>
<td>BZ 300</td>
<td>Animal Behavior</td>
<td>3</td>
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<tr>
<td>BZ 311</td>
<td>Developmental Biology</td>
<td>4</td>
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<tr>
<td>BZ 329</td>
<td>Herpetology</td>
<td>4</td>
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<tr>
<td>BZ 330</td>
<td>Mammalogy</td>
<td>3</td>
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<tr>
<td>BZ 335</td>
<td>Ornithology</td>
<td>3</td>
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<tr>
<td>BZ 339</td>
<td>Field Practicum (summer only)</td>
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<tr>
<td>BZ 340</td>
<td>Field Mammalogy</td>
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<tr>
<td>BZ 342</td>
<td>Exploring Range Shifts in a Changing World</td>
<td>3</td>
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<tr>
<td>BZ 348</td>
<td>Theory of Pop. &amp; Evolutionary Ecology</td>
<td>4</td>
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<tr>
<td>BZ 349</td>
<td>Tropical Ecology &amp; Evolution</td>
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<tr>
<td>BZ 360</td>
<td>Bioinformatics &amp; Genomics</td>
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<td>BZ 401</td>
<td>Comparative Animal Physiology</td>
<td>3</td>
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<tr>
<td>BZ 415</td>
<td>Marine Biology</td>
<td>4</td>
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<tr>
<td>BZ 418</td>
<td>Ecology of Infectious Disease</td>
<td>4</td>
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<tr>
<td>BZ 420</td>
<td>Evolutionary Medicine</td>
<td>3</td>
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<tr>
<td>BZ 424</td>
<td>Principles of Systematic Zoology</td>
<td>3</td>
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<tr>
<td>BZ 425</td>
<td>Conservation &amp; Population Genomics</td>
<td>3</td>
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<tr>
<td>BZ 430</td>
<td>Animal Behavior &amp; Conservation</td>
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<td>BZ 433</td>
<td>Behavioral Genetics</td>
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<tr>
<td>BZ 435</td>
<td>Study Abroad-Honduras: Dolphin Behavior &amp; Physiology</td>
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<td>BZ 449A</td>
<td>Study Abroad-Ecuador: Ecology/Conservation-Ecuadorian Biodiversity</td>
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<td>BZ 455</td>
<td>Human Heredity &amp; Birth Defects</td>
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<td>BZ 460</td>
<td>Genome Evolution</td>
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<tr>
<td>BZ 471</td>
<td>Stream Biology &amp; Ecology</td>
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<tr>
<td>BZ 472</td>
<td>Stream Biology &amp; Ecology Lab</td>
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<td>BZ 475</td>
<td>Marine Mammalogy</td>
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<td>BZ 462</td>
<td>Parasitology &amp; Vector Biology</td>
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<tr>
<td>BZ 476</td>
<td>Genetics of Model Organisms</td>
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<tr>
<td>BZ 477</td>
<td>Genome Editing</td>
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<tr>
<td>BZ 478</td>
<td>Biology &amp; Behavior of Cats (online)</td>
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<tr>
<td>BZ 479</td>
<td>Biology &amp; Behavior of Dogs (online)</td>
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<tr>
<td>BZ 482C</td>
<td>Study Abroad-Mexico: Marine Biol. &amp; Ecology</td>
<td>3</td>
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<tr>
<td>BZ 482D</td>
<td>Study Abroad-Kenya: Behavior &amp; Biology of African Mammals</td>
<td>3</td>
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<tr>
<td>BZ 492A-G</td>
<td>Seminar (topic dependent on instructor)</td>
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<tr>
<td>BZ 496</td>
<td>Group Study – Biology (Honors)</td>
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<tr>
<td>BZ 510</td>
<td>Zoophysiological Ecology</td>
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<tr>
<td>BZ 515</td>
<td>Physiological Ecology of Marine Vertebrates</td>
<td>3</td>
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<tr>
<td>BZ 535</td>
<td>Behavioral &amp; Cognitive Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BZ 560</td>
<td>Teaching &amp; Communicating Science</td>
<td>3</td>
</tr>
<tr>
<td>BZ 565</td>
<td>Next Generation Sequencing</td>
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<tr>
<td>GEOL 342</td>
<td>Paleontology</td>
<td>3</td>
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<tr>
<td>FW 300</td>
<td>Biology &amp; Diversity of Fishes</td>
<td>2</td>
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<tr>
<td>FW 301</td>
<td>Ichthyology Lab</td>
<td>1</td>
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<tr>
<td>FW 400</td>
<td>Conservation of Fish in Aquatic Ecosystems</td>
<td>3</td>
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<tr>
<td>FW 405</td>
<td>Fish Physiology</td>
<td>3</td>
</tr>
<tr>
<td>NR 312</td>
<td>Applied Insect Technology</td>
<td>3</td>
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</table>

Up to 6 credits may be used from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BMS 300</td>
<td>Principles of Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BMS 305</td>
<td>Domestic Animal Gross Anatomy</td>
<td>4</td>
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<tr>
<td>MIP 300</td>
<td>General Microbiology</td>
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<td>MIP 302</td>
<td>General Microbiology Lab</td>
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<tr>
<td>MIP 315</td>
<td>Human &amp; Animal Disease</td>
<td>3</td>
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<tr>
<td>MIP 342</td>
<td>Immunology</td>
<td>4</td>
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<td>MIP 343</td>
<td>Immunology Lab</td>
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</tbody>
</table>

**TRACK 1 HONORS PROGRAM STUDENTS ARE REQUIRED TO TAKE THE FOLLOWING COURSES TO FULFILL THE AUCC CURRICULUM**

**Category 1: Basic Competencies**

HONR 192 First Year Seminar (4)
HONR 193 Seminar (3)

**Category 2: Additional Communication**

Advanced Writing (3)

**Category 3B: Arts/Humanities**

HONR 292 Seminar (3) (For students entering Fall 2015 and later)
OR
Additional Arts/Humanities (3) (For students entering before Fall 2015)

HONR 392 Seminar (3)

**Category 3C: Social/Behavioral**

HONR 492 Senior Seminar (3)

**Category 3D: Historical Perspectives and 1C: Diversity, Equity, and Inclusion**

HONR 399 Pre-Thesis (1)
HONR 499 Thesis (3)