**Weber State University – ZOOLOGY MAJOR – Ecosystems Biology**

*Bachelor of Science Degree (BS) 2023-Current*

### Required Zoology Courses:
- **ZOOL 1110** LS Principles of Zoology (4)
- **ZOOL 2220** Diversity of Animals (4)
- **ZOOL 3200** Cell Biology (4)
- **ZOOL 3300** Genetics (4)
- **ZOOL 3450** Ecology (4)
- **ZOOL 3600** Comparative Physiology (4)
- **ZOOL 3720** Evolution (3)
- **ZOOL 4990** Seminar (1)

**Total Credit Hours: 28**

### Upper-division Zoology Electives (minimum 4 courses):
- **ZOOL 3470** Zoogeography (3)
- **ZOOL 3500** Conservation Biology (3)
- **ZOOL 3730** Population Biology (3)
- **ZOOL 3820** Biology of Cancer (3)
- **ZOOL 4050** Comparative Vertebrate Anatomy (4)
- **ZOOL 4110** Vertebrate Embryology (4)
- **ZOOL 4120** Histology (4)
- **ZOOL 4210** Advanced Human Physiology (4)
- **ZOOL 4220** Endocrinology (4)
- **ZOOL 4300** Research Applications in Genetics (4)
- **ZOOL 4350** Animal Behavior (4)
- **ZOOL 4470** Wildlife Ecology and Management (4)
- **ZOOL 4480** Aquatic Ecology (4)
- **ZOOL 4490** Marine Ecology (4)
- **ZOOL 4500** Parasitology (4)
- **ZOOL 4640** Entomology (4)
- **ZOOL 4650** Ichthyology (4)
- **ZOOL 4660** Herpetology (4)
- **ZOOL 4670** Ornithology (4)
- **ZOOL 4680** Mammalogy (4)
- **ZOOL 4700** Topics in Zoology* (3-4)

**Total credit hours: 12-16**

**Experience in Zoology (minimum 2 credit hours – may be taken in the same or separate semesters - or select a 5th course from upper-division electives above):**
- **ZOOL 3099** Teaching the Human Anat. Lab. (3)
- **ZOOL 3100** Advanced Human Anatomy (3)
- **ZOOL 4800** Problems in Zoology (1-4)
- **ZOOL 4820** Human Anatomy Lab. Teach. Assist. (1-4)
- **ZOOL 4830** Readings in Zoology (1)
- **ZOOL 4890** Cooperative Work Experience (1-4)
- **ZOOL 4920** Short Courses (1-4)
- **ZOOL 4950** Field Zoology (1-3)
- **ZOOL 4970** Thesis (2)
- **ZOOL 4980** Research Design (2)

**Total credit hours: 2**

### Required Chemistry Courses:
- **CHEM 1210** Organic Chemistry I (4)
- **CHEM 1215** Principles of Chemistry I Lab (1)
- **CHEM 1220** Principles of Chemistry II (4)
- **CHEM 1225** Principles of Chemistry II Lab (1)

**Total credit hours: 10**

### Required Math Courses (minimum 1 course):
- **MATH 1150** Calculus I (4)
- **MATH 1210** Calculus II (4)
- **MATH 1220** Calculus III (4)
- **MATH 2210** Probability and Statistics I (3)
- **SOC 3600** Social Statistics (3)
- **PSY 3600** Statistics in Psychology (3)

**Total Credit Hours: 3**

### Required Statistics Courses (minimum 1 course):
- **MATH 1160** (1040) QL Introduction to Statistics (3)
- **MATH 3410** Probability and Statistics I (3)
- **SOC 3600** Social Statistics (3)
- **PSY 3600** Statistics in Psychology (3)

**Total Credit Hours: 3-5**

### Required Physics Courses (minimum 1 course):
- **PHYS 1010** PS Elementary Physics (3)
- **PHYS 2010** PS College Physics I w/lab (5)
- **PHYS 2210** PS Physics for Sci. and Eng. I w/lab (5)

**Total Credit Hours: 3-5**

### Elective Support Courses (minimum 4 courses, must include at least 1 BTNY or MICR; Courses taken with separate labs counts as 1 course):
- **BTNY 2104** Plant Form and Function* (4)
- **BTNY 2114** Evolutionary Survey of Plants* (4)
- **BTNY 2303** Ethnobotany (3)
- **BTNY 3105** Anatomy of Vascular Plants (4)
- **BTNY 3204** Plant Physiology (4)
- **BTNY 3214** Soils (4)
- **BTNY 3454** Plant Ecology (4)
- **BTNY 3504** Mycology (4)
- **BTNY 3624** Taxonomy of Vascular Plants (4)

### Chemistry
- **CHEM 2310** Organic Chemistry I (4)
- **CHEM 2315** Organic Chemistry I Lab (1)
- **CHEM 2320** Organic Chemistry II (4)
- **CHEM 2325** Organic Chemistry II Lab (1)
- **CHEM 3070** Biochemistry I (3)

### Earth and Environmental Sciences
- **GEO 1110** PS Dynamic Earth: Physical Geology* (3)
- **GEO 1115** Physical Geology Lab* (1)
- **GEO 1220** Historical Geology* (4)
- **GEO 3150** Geomorphology* (4)
- **GEO 3710** Intro to Geographic Information Systems* (4)

### Biology
- **MATH 3450** Advanced Statistical Methods* (4)

### Microbiology
- **MICR 2054** LS Principles of Microbiology (4)
- **MICR 3053** Microbiological Procedures (3)
- **MICR 3203** Immune System in Health & Disease (3)
- **MICR 3254** Immunology (4)
- **MICR 3305** Medical Microbiology (5)
- **MICR 3484** Environmental Microbiology (4)
- **MICR 3853** Food Microbiology (3)
- **MICR 4054** Microbial Physiology (4)
- **MICR 4554** Virology (4)
- **NEUR 2050** Introduction to Neuroscience* (3)
- **PHYS 2020** College Physics II w/lab (5)
- **PHYS 2220** Physics for Sci. and Eng. II w/lab (5)
- **ZOO 2100** Human Anatomy (4)
- **ZOO 2200** LS Human Physiology (4)

**Total credit hours: 12-20**

**Note:**
- *Pre-Requisites for most upper-division Botany courses
- *Class may not show in CatTracks; please see Department Chair.

Please check the Catalog and CatTracks for Pre-Requisites & Co-Requisites

Please meet with a **Zoology** advisor (Dr. Hoagstrom) for course planning.

*Worksheet is for Zoology major coursework and does not include minor or university coursework. 40 credit hours must be 3000 level or higher (upper division) for the Bachelor of Science degree.