# Fisheries Sciences

## Training the Next Generation of Fisheries Professionals

The Bachelor of Science in Fisheries Sciences focuses on the ecology, conservation, and management of fish species and aquatic ecosystems. In this degree offered through the Department of Fish and Wildlife Sciences, our students learn to apply the principles of biology and ecology to understand how fish populations interact with each other and with their environment and how to address management challenges associated with a growing human population. Our degree emphasizes critical thinking through coursework and hands-on field and laboratory experiences, and our graduates are equipped to be successful natural resource managers, conservation officers and scientists in a rapidly changing world. Our graduates pursue careers with state, federal, tribal and private organizations involved with: managing recreationally and commercially important fish populations, conservation law enforcement, biological monitoring, environmental impact assessment, con-servation of endangered fish and ecosystems, aquaculture and hatchery operation, control and prevention of fish diseases, and management of stream or lake ecosystems.

## Recommended 4-Year Plan | 2022/2023

### FRESHMAN

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
<th>FALL</th>
<th>CREDITS</th>
<th>SPRING</th>
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</thead>
<tbody>
<tr>
<td>BIOL 114 - Organisms &amp; Environments</td>
<td>4</td>
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<tr>
<td>COMM 101 - Fundamentals of Oral Communication</td>
<td>3</td>
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<tr>
<td>ENGL 101* - Writing &amp; Rhetoric I</td>
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<td>MATH 143 - Pre-Calculus Algebra</td>
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<tr>
<td>NR 101 - Exploring Natural Resources</td>
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**TOTAL 15**

### SOPHOMORE

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<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td>WLF 201 - Fish &amp; Wildlife Applications</td>
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<tr>
<td>WLF 220 OR FOR 221 - Principles of Ecology</td>
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<td>FOR 235 - Society &amp; Natural Resources</td>
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<tr>
<td>BIOL 115/115L - Cells &amp; the Evolution of Life &amp; Lab</td>
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<td>CHEM 275 - Carbon Compounds OR CHEM 277</td>
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**TOTAL 15**
**FISHERIES SCIENCES**

### JUNIOR

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<th>COURSE</th>
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<tr>
<td>FISH 314 - Fish Ecology</td>
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<tr>
<td>FISH 315 - Fish Ecology Field Techniques &amp; Methods</td>
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</tr>
<tr>
<td>Emphasis Area Course</td>
<td>5</td>
</tr>
<tr>
<td>Emphasis Area Course</td>
<td>3</td>
</tr>
<tr>
<td>General Education Requirement</td>
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**TOTAL 16**

### SENIOR

<table>
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<th>COURSE</th>
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<tr>
<td>FISH 415* - Limnology</td>
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<td>FISH 418 - Fisheries Management</td>
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<tr>
<td>FOR/NRS 375 - Intro to Spatial Analysis for NR Mgmt</td>
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<tr>
<td>General Education Requirement</td>
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**TOTAL 14**

### EMPHASIS AREAS:

A. CONSERVATION LAW ENFORCEMENT
   - CRIM 101 - Introduction to Criminology (3cr)
   - PHIL 103 - Introduction to Ethics (3cr)
   - PSYC 101 - Introduction to Psychology (3cr)
   - SOC 101 - Introduction to Sociology (3cr)
   - WLF 205 - Wildlife Law Enforcement (3cr)
   - Fisheries and Wildlife Electives (3cr) Select two of the following:
     - FISH 411 OR FISH 422 OR FISH 424 OR FISH 425 OR FISH 451 OR WLF 314 OR WLF 315 OR WLF 411 OR WLF 440
     - Select one of the following:
       - BIO 205 OR BIOL 311 OR GEN 316
     - Select one of the following:
       - COMM 230 OR COMM 305 OR COMM 410 OR COMM 430 OR COMM 454 OR COMM 480 OR COMM 500 OR SOC 201 OR SOC 303 OR SOC 340 OR SOC 420

B. FISHERIES SCIENCE AND MANAGEMENT
   - BIO 310 - Genetics (3cr) OR GENE 314
   - BIOL 250/355 - General Microbiology & Lab (5 or BIO 101 or 111)
   - FISH 411 - Fish Physiology (3cr)
   - FISH 422 - Concepts in Aquaculture (4cr) OR FISH 424
   - MATH 160 - Survey of Calculus (4cr) OR MATH 170
   - Fish Science Electives (3 or)
     - FISH 420 OR FISH 425 OR FISH 451 OR FISH 497 OR FISH 499.
     - Select one of the following:
       - COMM 230 OR COMM 305 OR COMM 410 OR COMM 430 OR COMM 454 OR COMM 480 OR COMM 500 OR SOC 201 OR SOC 303 OR SOC 340 OR SOC 420

Students pursuing a B.S. degree in Fisheries Science must have received a grade of 'C' or better in each of the following four indicator courses to register for FISH or WLF upper-division courses and to graduate with a B.S.: BIOL 114, BIOL 219, FOR 221, and STAT 251.

To graduate, students must achieve a grade of 'C' or better in each FISH or WLF upper-division course listed in the requirements for the B.S. Degree.

### REQUIRED INTERNSHIP

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<tr>
<th>COURSE</th>
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<tr>
<td>FISH/WLF 298 - Renewable Natural Resources Internship (Fall, Spring, or Summer)</td>
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### MINORS:

#### Requirements for Aquaculture Minor (23 credits):
- BIOL 250/255 - General Microbiology & Lab (3cr)
- FISH 422 - Concepts in Aquaculture (4cr)
- FISH 424 - Fish Health Management (4cr)
- FISH 481 - Ichthyology (4cr)

Plus select two of the following:
- ASM 107 - Beginning Welding (2cr)
- AVS 305 - Animal Nutrition (3cr)
- MKTG 291 - Marketing (3cr)
- ENTR 414 - Entrepreneurship (3cr)
- FISH 498 - Internship (3cr)

#### Requirements for Wildlife Resources Minor (18 credits):
- WLF 220 OR FOR 221 OR BIOL 314 - Principles of Ecology (3cr)
- WLF 314 - Ecology of Terrestrial Vertebrates (3cr)
- WLF 315 - Techniques Lab (2cr)

Plus select any 9-12 credit combination of the following:
- BIOL 483 - Mammalogy (3cr)
- BIOL 489 - Herpetology (3cr)
- WLF 311 - Physiological Ecology of Wildlife (3cr)
- WLF 411 - Wildlife Habitat Ecology and Assessment (3cr)
- WLF 418 - Wildlife Monitoring (1cr)
- WLF 440 - Conservation Biology (3cr)
- WLF 448 - Fish & Wildlife Population Ecology (4cr)
- WLF 482 - Ornithology (4cr)
- WLF 492 - Wildlife Management (4cr)

### Ready to Get Started?

Email cnradvising@uidaho.edu

- This academic plan is intended as a guideline only and does not replace academic advising.
- 120 credits minimum are required for a B.S. in Fisheries Science.
- Minimum of 36 upper-division credits required to graduate.
- See course catalog and department website for complete degree requirements and additional information.
- Both Online & In-Person options are offered
- Online only offered

University of Idaho
Department of Fish and Wildlife Sciences