DEPARTMENT AND ADVISING INFORMATION

Contacts:
- Department of Integrative Biology, 3029 Cordley Hall, 541-737-2993, ib@oregonstate.edu
- The Biosphere student lounge, 3019 Cordley Hall
- Integrative Biology Club (IBC): All zoology students are automatically members. Contact integrativebiologyclub@oregonstate.edu or see Facebook for details on upcoming events.

<table>
<thead>
<tr>
<th>First year student must meet each term</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>X</td>
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</table>

<table>
<thead>
<tr>
<th>Sophomores must meet winter OR spring term</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<tbody>
<tr>
<td>X</td>
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</table>

<table>
<thead>
<tr>
<th>Juniors must meet winter OR spring term</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<tbody>
<tr>
<td>X</td>
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<table>
<thead>
<tr>
<th>Transfer students meet their first term after transferring</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<table>
<thead>
<tr>
<th>Seniors meet as needed to review for graduation</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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Tools
- **Degree Checklists:** See MyDegrees in your Student Online Services to view your major checklist.
- **Listserv:** Current students are auto-subscribed to the major listserv and receive posts in their ONID account.
- **IB Website:** see information about student clubs, study abroad, internship, and research opportunities [http://ib.oregonstate.edu/undergraduates](http://ib.oregonstate.edu/undergraduates).

Rules:
- **GPA requirement:** The Zoology major requires a 2.0 cumulative OSU and major GPA to graduate.
- **C- requirement for Biology (BI 21x), Math (MTH) and Chemistry (CH):** All students must receive a C- or better in any math (MTH) and BI 211, 212 and 213 or CH 23x/26x series and CH 331 to continue on to courses that have these courses as prerequisites (e.g. MTH 251, CH 232/262, BI 370).
- **Double counting courses:** Minor and Baccalaureate Core courses may be shared with major requirements.
- **S/U and withdraw (W):** Zoology students cannot S/U major courses and are only allowed 12 withdraws.
- **Chemistry Minor:** The Chemistry Minor can be completed by taking one additional course – talk to the Chemistry Department for approval and details.
- **Restricted double or dual majors** are not allowed in Biology, Biochemistry and Biophysics, Biochemistry and Molecular Biology, Biohealth Sciences, Fisheries and Wildlife, Microbiology or Zoology.
- **Class Retakes:** OSU academic regulations often result in retakes not working the way students expect in terms of their GPA and requirements. If you are considering repeating a course you first completed at OSU or another school or you are repeating any OSU course for the third time, you should bring this to the attention of your advisor. Students should also review the retake information at [https://ib.oregonstate.edu/advising/faq/retake-gpa](https://ib.oregonstate.edu/advising/faq/retake-gpa).
ZOOLOGY FOUR-YEAR PLANS

- Major courses are listed in order of priority. Students planning to finish in four years should average 15 credits a term.
- OSU math sequences for Zoology students: MTH 065, 103, 111, 112, & [MTH 227 & 228] or [MTH 251 & 252]

<table>
<thead>
<tr>
<th>Track I</th>
<th>Placed MTH 103, 111 or 112</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Year</strong></td>
<td></td>
</tr>
<tr>
<td>- BI 198 in fall, BI 298 in spring</td>
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</tr>
<tr>
<td>- Start math (MTH) fall term and each term forward</td>
<td></td>
</tr>
<tr>
<td>- CH 231 &amp; 261, 232 &amp; 262, 233 &amp; 263 (OR 121x)</td>
<td></td>
</tr>
<tr>
<td>- Two or more Baccalaureate Core (Bacc Core) courses a term - COMM 111 and other skills courses as priority</td>
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</tr>
<tr>
<td><strong>2nd Year</strong></td>
<td></td>
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<tr>
<td>- BI 211, 212, 213</td>
<td></td>
</tr>
<tr>
<td>- CH 331, 332</td>
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</tr>
<tr>
<td>- One Bacc. Core a quarter - WR 327 or 362 as priority</td>
<td></td>
</tr>
<tr>
<td>- Finish MTH course then fill in with Bacc. Core.</td>
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<tr>
<td><strong>3rd Year</strong></td>
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<tr>
<td>- CH 337 or 390</td>
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<tr>
<td>- ST 351, 352</td>
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<tr>
<td>- Z 371, 372</td>
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<tr>
<td>- Z 361 and 362 OR Z 461</td>
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<tr>
<td>- Writing Intensive Course</td>
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</tr>
<tr>
<td>- One Bacc. Core a term until finished</td>
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</tr>
<tr>
<td>- One course a quarter from: Z 423, BI 370, BI 311, BI 445</td>
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<tr>
<td>- Complete course(s) not taken 2nd year (above) then fill with elective areas of major</td>
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<tr>
<td><strong>4th Year</strong></td>
<td></td>
</tr>
<tr>
<td>- BB 314 and BI 483</td>
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<tr>
<td>- Complete major course(s) not taken 3rd year</td>
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<tr>
<td>- Complete elective areas of major</td>
<td></td>
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<tr>
<td>- Complete 180/60 upper div. credits</td>
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<tr>
<td>- BI 498 Senior Biology Major Field Test</td>
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<table>
<thead>
<tr>
<th>Track II</th>
<th>Placed MTH 251 placement/credit</th>
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</thead>
<tbody>
<tr>
<td><strong>1st Year</strong></td>
<td></td>
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<tr>
<td>- BI 198 in fall, BI 298 in spring</td>
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<tr>
<td>- BI 211, 212, 213</td>
<td></td>
</tr>
<tr>
<td>- CH 231 &amp; 261, 232 &amp; 262, 233 &amp; 263 (OR 121x)</td>
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<tr>
<td>- One Baccalaureate Core (Bacc. Core) course a term - COMM 111 and other skills courses as priority</td>
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<tr>
<td>- Math (MTH) in winter or spring</td>
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<tr>
<td><strong>2nd Year</strong></td>
<td></td>
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<tr>
<td>- CH 331, 332</td>
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<tr>
<td>- Finish MTH then ST 351, 352</td>
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<tr>
<td>- One Bacc. Core a term</td>
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<tr>
<td>- WR 327 or 362 as priority</td>
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<tr>
<td>- One course a quarter from: Z 423, BI 370, BI 311</td>
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<tr>
<td>- BI 445</td>
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<tr>
<td><strong>3rd Year</strong></td>
<td></td>
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<tr>
<td>- CH 337 or CH 390</td>
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<tr>
<td>- Z 371, 372</td>
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<tr>
<td>- Z 361 and 362 OR Z 461</td>
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<tr>
<td>- Writing Intensive Course</td>
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<tr>
<td>- BB 314 and BI 483</td>
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<tr>
<td>- One Bacc. Core a term until finished</td>
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<tr>
<td>- Complete course(s) not taken 2nd year (above) then fill with elective areas of major</td>
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<tr>
<td><strong>4th Year</strong></td>
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<tr>
<td>- Complete major course(s) not taken 3rd year</td>
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<tr>
<td>- Complete elective areas of major</td>
<td></td>
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<tr>
<td>- Complete 180/60 upper div. credit</td>
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BACCALAUREATE CORE REQUIREMENTS

<table>
<thead>
<tr>
<th>Category</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td><strong>Skills</strong></td>
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</tr>
<tr>
<td>Fitness (HHS 231) &amp; Fitness Lab (HHS Lab or PAC)</td>
<td></td>
</tr>
<tr>
<td>Math (C- or better required in math course prerequisites)</td>
<td>Completed as part of major; must complete in 1st 45 OSU credits</td>
</tr>
<tr>
<td>Writing I = WR 121 (A-G Fall, H-N Winter, O-Z Spring)</td>
<td>Must complete in 1st 45 OSU credits</td>
</tr>
<tr>
<td>Writing II = WR 327 or 362 major</td>
<td>Completed as listed here; must complete 1st 90 credits (45 if transfer)</td>
</tr>
<tr>
<td>Speech = COMM 111</td>
<td>Completed as listed here; must complete 1st 45 credits (45 if transfer)</td>
</tr>
<tr>
<td><strong>Perspectives</strong></td>
<td>No more than two courses from any one department may be used to satisfy the perspectives requirement</td>
</tr>
<tr>
<td>Biological and Physical Science and second course</td>
<td>Completed as part of major</td>
</tr>
<tr>
<td>Cultural Diversity</td>
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<tr>
<td>Literature and the Arts</td>
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<tr>
<td>Social Processes and Institutions</td>
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<tr>
<td>Western Culture</td>
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<tr>
<td><strong>Difference, Power and Discrimination</strong></td>
<td></td>
</tr>
<tr>
<td>Difference, Power and Discrimination</td>
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<tr>
<td><strong>Synthesis Courses</strong></td>
<td>Courses used to fulfill the synthesis requirements may not be from the same department</td>
</tr>
<tr>
<td>Contemporary Global Issues (CGI)</td>
<td>Taken junior/senior year, some count toward major or options</td>
</tr>
<tr>
<td>Science, Technology, and Society (STS)</td>
<td>Taken junior/senior year, some count toward major or options</td>
</tr>
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</table>
### Major Core Coursework

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 198</td>
<td>Professional Development I: Biology &amp; Zoology</td>
<td>X</td>
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</tr>
<tr>
<td>BI 298</td>
<td>Professional Development for Biologists II</td>
<td>X</td>
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</table>

Zoology majors must complete one of two calculus series. Choose from

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Term Offered</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MTH 227</td>
<td>Calculus and Probability for Life Sci. 1 (4) AND</td>
<td>X</td>
<td>C - or better in MTH 112 (complete 227 and 228 as series)</td>
</tr>
<tr>
<td>MTH 228</td>
<td>Calculus and Probability for Life Sci. 2 (4)</td>
<td>X</td>
<td>C - or better in MTH 112 (complete 227 and 228 as series)</td>
</tr>
</tbody>
</table>

**OR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 251</td>
<td>Calculus (4) AND MTH 252 Calculus (4)</td>
<td>X X X X X 251</td>
<td>C - or better in MTH 112, 252: C - or better in MTH 251</td>
</tr>
<tr>
<td>CH 231 &amp; 261</td>
<td>General Chemistry and Lab (4+1)</td>
<td>X X</td>
<td>Placement &amp; HS chemistry</td>
</tr>
<tr>
<td>CH 232 &amp; 262</td>
<td>General Chemistry and Lab (4+1)</td>
<td>X X X</td>
<td>C - or better in CH 231 and 261</td>
</tr>
<tr>
<td>CH 233 &amp; 263</td>
<td>General Chemistry and Lab (4+1)</td>
<td>X X X</td>
<td>C - or better in CH 232 and 262</td>
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</table>

*NOTE: CH 121, 122 & 123 are taught the same terms at CH 231, 232 & 233 and also meet major requirements.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 211</td>
<td>Principles of Biology (4)</td>
<td>X</td>
<td>C - or better in BI 211</td>
</tr>
<tr>
<td>BI 212</td>
<td>Principles of Biology (4)</td>
<td>X</td>
<td>CH 121 or 231 &amp; 261; C - or better in BI 212</td>
</tr>
<tr>
<td>BI 213</td>
<td>Principles of Biology (4)</td>
<td>X</td>
<td>CH 121 or 231 &amp; 261; C - or better in 213</td>
</tr>
<tr>
<td>CH 331</td>
<td>Organic Chemistry (4)</td>
<td>X</td>
<td>C - in CH 233/263 or 123</td>
</tr>
<tr>
<td>CH 332</td>
<td>Organic Chemistry (4)</td>
<td>X X X</td>
<td>C - in CH 331</td>
</tr>
<tr>
<td>CH 337</td>
<td>Organic Chemistry Lab (4)</td>
<td>X X X</td>
<td>C - in CH 332</td>
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**OR**

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<tr>
<th>Course Code</th>
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<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
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</thead>
<tbody>
<tr>
<td>Z 361</td>
<td>Invertebrate Biology and Z 362 Lab (3-2)</td>
<td>X X X</td>
<td>C - in BI 211, 212, 213</td>
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**OR**

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<tr>
<th>Course Code</th>
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<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
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<tbody>
<tr>
<td>Z 461</td>
<td>Marine and Estuarine Invertebrates (4)</td>
<td>X</td>
<td>*taught at Hatfield</td>
</tr>
<tr>
<td>Z 371</td>
<td>Vertebrate Biology AND Z 372 Lab (3)</td>
<td>X</td>
<td>C - in BI 211, 212, 213</td>
</tr>
<tr>
<td>Z 423</td>
<td>Environmental Physiology (3)</td>
<td>X</td>
<td>C in BI 211, 212, 213, CH 123 or 233/263</td>
</tr>
<tr>
<td>BI 445</td>
<td>Evolution (3)</td>
<td>X X</td>
<td>BI 311</td>
</tr>
<tr>
<td>BI 483</td>
<td>Population Biology</td>
<td>X</td>
<td>BI 311 or 370; MTH 251; ST 351 &amp; 352*</td>
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**BI 498 Senior Biology Major Field Test** – 2 hours exam taken FINAL TERM or spring if graduating summer term

### Writing Intensive Course – Select one course below

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 319</td>
<td>Critical Thinking &amp; Communication in Life Sci. (3)</td>
<td>X X X</td>
<td>BI 211, 212, 213, ST 351</td>
</tr>
<tr>
<td>BI 371</td>
<td>Ecological Methods (3)</td>
<td>X</td>
<td>BI 370</td>
</tr>
<tr>
<td>BI 373</td>
<td>Field Methods in Marine Ecology (3)</td>
<td>X</td>
<td>BI 370 or BI 351</td>
</tr>
<tr>
<td>BI 450</td>
<td>Marine Biology &amp; Ecology (15) (by application)</td>
<td>*</td>
<td>BI 370, ST 351, ST 352; JR standing; *taught at Hatfield</td>
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</table>

### Elective Courses – Zoology students must complete two courses from each of the four categories below

#### Organismal/Physiology/Systematics (OPS) electives (select two 3+ credit courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 358</td>
<td>Symbiosis and the Environment (3)</td>
<td>*</td>
<td>C - in BI 21x, CH 233/263 or 123; *taught alternate years</td>
</tr>
<tr>
<td>BI 485</td>
<td>Monster Biology (3)</td>
<td>X</td>
<td>BI 311, BI 370 (may be concurrent)</td>
</tr>
<tr>
<td>BOT 321</td>
<td>Plant Systematics (4)</td>
<td>X</td>
<td>BI 211, 212, 213</td>
</tr>
<tr>
<td>FW 302</td>
<td>Biol. &amp; Conservation of Marine Mammals (4)</td>
<td>X</td>
<td>BI 211, 212, 213</td>
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**OR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR FW 311</td>
<td>Ornithology (3)</td>
<td>X</td>
<td>BI 211, 212, 213</td>
</tr>
<tr>
<td>OR FW 315</td>
<td>Ichthyology (3)</td>
<td>X</td>
<td>BI 211, 212, 213</td>
</tr>
<tr>
<td>OR FW 317</td>
<td>Mammalogy (3)</td>
<td>X</td>
<td>BI 211, 212, 213</td>
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</table>

**OR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Requisites) / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR FW 331</td>
<td>Ecology of Marine and Estuarine Birds (4)</td>
<td>X</td>
<td>BI 211, 212, 213</td>
</tr>
<tr>
<td>MB 480</td>
<td>General Parasitology (3)</td>
<td>X</td>
<td>C - in BI 211, 212, 213</td>
</tr>
<tr>
<td>Z 350</td>
<td>Animal Behavior (3)</td>
<td>X</td>
<td>C - in BI 211, 212, 213</td>
</tr>
<tr>
<td>Z 365</td>
<td>Biology of Insects (4)</td>
<td>*</td>
<td>C - in BI 211, 212, 213; *taught alternate years</td>
</tr>
<tr>
<td>Z 422</td>
<td>Comparative/Functional Vertebrate Anatomy (5)</td>
<td>X</td>
<td>C - in BI 211, 212, 213; CH 332 (may be concurrent)</td>
</tr>
<tr>
<td>Z 431</td>
<td>Vertebrate Physiology I (3)</td>
<td>X</td>
<td>C - in BI 211, 212, 213 &amp; CH 332*</td>
</tr>
<tr>
<td>Z 438</td>
<td>Behavioral Neurobiology (3)</td>
<td>X</td>
<td>C - in BI 211, 212, 213, CH 123 or CH 233/263</td>
</tr>
<tr>
<td>Z 440</td>
<td>Insect Physiology (3)</td>
<td>*</td>
<td>C - in BI 211, 212, 213; *taught alternate years</td>
</tr>
<tr>
<td>Z 473</td>
<td>Herpetology (3) (Z 474 currently not taught)</td>
<td>* * *</td>
<td>C - in BI 211, 212, 213; *see catalog</td>
</tr>
<tr>
<td>Z 477</td>
<td>Aquatic Entomology (4)</td>
<td>X</td>
<td>C - in BI 211, 212, 213</td>
</tr>
<tr>
<td>Course Title</td>
<td>Term Offered</td>
<td>Pre(Co*)Requisites / Comments</td>
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<tr>
<td><strong>Ecology/Evolution/Conservation (EEC) electives (select two 3+ credit courses)</strong></td>
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<tr>
<td>BI 301 Human Impacts on Ecosystems. (3)</td>
<td>F</td>
<td>C- BI 21x or CH 23x/26x or 12x; JR standing</td>
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<tr>
<td><strong>OR</strong> BI 348 Human Ecology (3)</td>
<td>X</td>
<td><strong>taught online only</strong></td>
<td></td>
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<tr>
<td>BI 351 Marine Ecology (3)</td>
<td>X</td>
<td>C- in BI 211, 212, 213; JR standing; <strong>taught at Hatfield</strong></td>
<td></td>
</tr>
<tr>
<td><strong>OR</strong> BI 450 Marine Biol. &amp; Ecology (15) (by application)</td>
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<tr>
<td>BI 375 Field Methods in Ecological Restoration (4)</td>
<td>X</td>
<td>*Taught in and around Cascades campus (Bend)</td>
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<tr>
<td>BI 427 Paleobiology (4)</td>
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<tr>
<td>BI 481 Biogeography (3)</td>
<td></td>
<td>BI 370, <strong>taught alternate years</strong></td>
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</tr>
<tr>
<td>BI 495 Disease Ecology (3)</td>
<td></td>
<td>BI 370, <strong>taught alternate years</strong></td>
<td></td>
</tr>
<tr>
<td>BOT 341 Plant Ecology (4)</td>
<td></td>
<td>C- in BI 211, 212, 213, BOT 321 recommended</td>
<td></td>
</tr>
<tr>
<td>FES 440. Wildland Fire Ecology (3)</td>
<td>X</td>
<td>BI 370</td>
<td></td>
</tr>
<tr>
<td><strong>FES/FW 445 Ecological Restoration (3)</strong></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>FW 320 Introductory Population Dynamics (3)</td>
<td>X</td>
<td>BI 370, MTH 251 or 227 or higher, ST 351</td>
<td></td>
</tr>
<tr>
<td><strong>OR</strong> FW 421 Aquatic Biological Invasions (4)</td>
<td></td>
<td>C- in BI 211, 212, 213; JR standing; <strong>taught at Hatfield</strong></td>
<td></td>
</tr>
<tr>
<td><strong>OR</strong> FW 427 Principles of Wildlife Diseases (4)</td>
<td>*</td>
<td>C- in BI 211, 212, 213; <strong>taught online only</strong></td>
<td></td>
</tr>
<tr>
<td><strong>OR</strong> FW 479 Wetlands and Riparian Ecology (3)</td>
<td>X</td>
<td>C- in BI 211, 212, 213; JR standing</td>
<td></td>
</tr>
<tr>
<td>Z 349 Biodiversity: Causes, Consequences &amp; Conservation (3)</td>
<td>X</td>
<td>BI 211 or 213 and junior standing</td>
<td></td>
</tr>
</tbody>
</table>

**Natural Resources/Management/Policy (NRMP) electives (select two 3+ credit courses)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Co*)Requisites / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEC 250 Intro. Env. Economics &amp; Policy (3)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>OR</strong> AEC 253 Env. Law, Policy &amp; Econ. (4)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>AEC 432 Environmental Law (4)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ANS 280 Companion Animal Management (3)</td>
<td>X</td>
<td>JR standing and Z 350</td>
</tr>
<tr>
<td>BI 347 Oceans in Peril (3)</td>
<td>X</td>
<td>BI 150, 211 or 213; JR standing</td>
</tr>
<tr>
<td>BI 348 Human Ecology (3)</td>
<td></td>
<td>See EEC list <strong>Cannot also be used in EEC list above</strong> – see EEC list for course details</td>
</tr>
<tr>
<td><strong>OR</strong> BI 301 Human Impacts on Ecosystems (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FES 355 Management for Multiple Resources (3)</td>
<td>*</td>
<td>*Taught online only</td>
</tr>
<tr>
<td>FES 412 Forest Entomology (3)</td>
<td>X</td>
<td>C- in BI 211, 212, 213</td>
</tr>
<tr>
<td>FES/FW 452 Biodiversity Conservation Managed Forests (3)</td>
<td>X</td>
<td>BI 370</td>
</tr>
<tr>
<td>FES 485 Consensus and Natural Resources (3)</td>
<td>X</td>
<td>9 credits of upper-division biological sciences</td>
</tr>
<tr>
<td>FOR 436 Wildland Fire Science &amp; Management (4)</td>
<td>X</td>
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</tr>
<tr>
<td>FOR 462 Natural Resource Policy and Law (3)</td>
<td>X</td>
<td>Junior standing</td>
</tr>
<tr>
<td>FW 350 Endangered Species, Society &amp; Sustainability (3)</td>
<td>*</td>
<td>Junior standing, *see catalog</td>
</tr>
<tr>
<td>FW 451 Avian Conservation and Management (3)</td>
<td>X</td>
<td>FW 311; <strong>taught online only</strong></td>
</tr>
<tr>
<td>FW 458 Mammal Conservation and Management (4)</td>
<td>X</td>
<td>9 credits of upper-division biological sciences</td>
</tr>
<tr>
<td>FW 462 Ecosystem Services (3)</td>
<td>*</td>
<td>BI 370; <strong>taught online only</strong></td>
</tr>
<tr>
<td>GEOG 450 Land Use in the American West (3)</td>
<td>?</td>
<td>Junior standing</td>
</tr>
<tr>
<td>PS 475 Environmental Politics and Policy (4)</td>
<td>*</td>
<td>*Taught online only</td>
</tr>
<tr>
<td>PS 477 International Environmental Politics and Policy (4)</td>
<td>X</td>
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<tr>
<td>SOC 481 Society and Natural Resources (4)</td>
<td>X</td>
<td>SOC 204</td>
</tr>
<tr>
<td>TRAL 352 Wilderness Management (3)</td>
<td>*</td>
<td>*Taught online only</td>
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<tr>
<td><strong>OR</strong> TRAL 357 Parks &amp; Protected Areas Manage. (3)</td>
<td>X</td>
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</tbody>
</table>

**Upper Division Science Elective (Complete one of the two tracks below—continued on next page)**

**Track I: Experiential Credits (complete any combination of three credits of the following):**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Term Offered</th>
<th>Pre(Co*)Requisites / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 309 Teaching Practicum (1-3 credits)</td>
<td>*</td>
<td>By approval - see office or website for documents</td>
</tr>
<tr>
<td>BI 401 Research and Scholarship (1-3 credits)</td>
<td>*</td>
<td>By approval - see office or website for documents</td>
</tr>
<tr>
<td>BI 406 Projects: Curatorial Assistant (1-3 credits)</td>
<td>*</td>
<td>By approval - see office or website for documents</td>
</tr>
<tr>
<td>BI 409 Advanced Teaching Practicum (1-3 credits)</td>
<td>*</td>
<td>By approval - see office or website for documents</td>
</tr>
<tr>
<td>BI 410 Internship (1-3 credits)</td>
<td>*</td>
<td>By approval - see office or website for documents</td>
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</tbody>
</table>

**Track II of Upper Division Science Elective Listed on Following Page**
### Track II: Skills Course (select one course that meets the constraints below):

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Offered</th>
<th>Workshops</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS 435 Applied Animal Behavior</td>
<td>X</td>
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<tr>
<td>BI 375 Field Methods in Ecological Restoration</td>
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<tr>
<td>BI 450 Marine Biology and Ecology</td>
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<tr>
<td>BOT 425 Flora of the Pacific Northwest</td>
<td>X</td>
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<tr>
<td>BOT 440 Field Methods in Plant Ecology</td>
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<tr>
<td>CS 161 Introduction to Computer Science I</td>
<td>X</td>
<td>X</td>
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<tr>
<td>FES 430 Forest as Classroom</td>
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<tr>
<td>FW 255 Field Sampling of Fish and Wildlife</td>
<td>X</td>
<td>X</td>
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<tr>
<td>FW 493 Field Methods for Marine Research</td>
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<tr>
<td>GEOG 360 GIScience I: Geographic Info. System &amp; Theory</td>
<td>X</td>
<td>X</td>
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<tr>
<td>GRAD 430 Introduction to Scientific Diving</td>
<td>X</td>
<td>X</td>
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<tr>
<td>KIN 232 Backcountry Leadership</td>
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<tr>
<td>NR 325 Scientific Methods for Analyzing Nat. Res. Problems</td>
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<tr>
<td>RNG 353 Wildland Plant Identification</td>
<td>X</td>
<td>X</td>
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<tr>
<td>RNG 441 Rangeland Analysis</td>
<td>X</td>
<td>X</td>
<td></td>
<td>ST 351</td>
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<tr>
<td>SED 435 Commun. Ocean Science to Informal Audiences</td>
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<tr>
<td>TRAL 493 Environmental Interpretation</td>
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</tbody>
</table>

**OSU GRADUATION REQUIREMENTS**

Complete the BI 498 Biology Major Field Test your final term or during spring term if planning to graduate in summer.

Complete 180 total credits (major and Bacc. Core courses do not total 180) and 60 upper division credits (300-400 level).

No more than 11 PAC, 12 MUP, 15 ALS, 16 BI 309, 406 & 409 credits can be used to reach the required 180 credits.

Maintain a 2.0 average GPA for your degree AND major unless otherwise required for your option -- see MyDegrees for these numbers.