## NATURAL RESOURCE ECOLOGY & MANAGEMENT: FISHERIES & AQUATIC ECOLOGY, BSAG

### Requirements for Students Matriculating in or before Academic Year 2020-2021

Learn more about University Academic Regulation 3.1 at [http://catalog.okstate.edu/university-academic-regulations/#matriculation](http://catalog.okstate.edu/university-academic-regulations/#matriculation).

**Minimum Overall Grade Point Average:** 2.00  
**Total Hours:** 125

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>English Composition</em></td>
<td></td>
</tr>
<tr>
<td>ENGL 1113</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Select one of the following:</td>
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<tr>
<td>ENGL 1213</td>
<td>Composition II</td>
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<tr>
<td>ENGL 1413</td>
<td>Critical Analysis and Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>American History &amp; Government</strong></td>
<td></td>
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<tr>
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<td>Select one of the following:</td>
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<tr>
<td>HIST 1103</td>
<td>Survey of American History</td>
<td>3</td>
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<tr>
<td>HIST 1483</td>
<td>American History to 1865 (H)</td>
<td>3</td>
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<tr>
<td>HIST 1493</td>
<td>American History Since 1865 (DH)</td>
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<tr>
<td>POLS 1113</td>
<td>American Government</td>
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<tr>
<td></td>
<td><em>Analytical &amp; Quantitative Thought (A)</em></td>
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<tr>
<td>MATH 1513</td>
<td>College Algebra (A)</td>
<td>3</td>
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<tr>
<td>or STAT 2013</td>
<td>Elementary Statistics (A)</td>
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<tr>
<td></td>
<td><strong>Humanities (H)</strong></td>
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<tr>
<td></td>
<td>Courses designated (H)</td>
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<tr>
<td></td>
<td><strong>Natural Sciences (N)</strong></td>
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<tr>
<td></td>
<td>Must include one Laboratory Science (L) course</td>
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<tr>
<td>BIOL 1114</td>
<td>Introductory Biology (LN)</td>
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<tr>
<td>Course designated (N)</td>
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<tr>
<td></td>
<td><strong>Social &amp; Behavioral Sciences (S)</strong></td>
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<tr>
<td>AGEC 1113</td>
<td>Introduction to Agricultural Economics (S)</td>
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<td></td>
<td><strong>Additional General Education</strong></td>
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<td></td>
<td>Courses designated (A), (H), (N), or (S)</td>
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<td><strong>Hours Subtotal</strong></td>
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### Major Requirements

**Core Courses**

Select one of the following: 3

- ANSI 3423 Animal Genetics
- BIOL 3023 General Genetics
- PLNT 3554 Plant Genetics and Biotechnology

**NREM 3012 Introduction to Natural Resource Ecology and Management** | 2

### Natural Sciences

- BIOL 1604 Animal Biology | 4
- CHEM 1215 Chemical Principles I (LN) | 4
- CHEM 1225 Chemical Principles II (LN) | 5
- CHEM 1314 Chemistry I (LN) | 4
- CHEM 1515 Chemistry II (LN) | 5
- GEOL 1114 Physical Geology (LN) | 4
- or PHYS 1014 Descriptive Physics (N) | 4

### Written and Oral Communications

Select one of the following: 3

- AGCM 3103 Written Communications in Agricultural Sciences and Natural Resources
- BCOM 3113 Written Communication
- ENGL 3323 Technical Writing

Select one of the following: 3

- AGCM 3203 Oral Communications in Agricultural Sciences & Natural Resources (S)
- SPCH 2713 Introduction to Speech Communication (S)
- SPCH 3733 Elements of Persuasion (S)

### Major Requirements

**Hours Subtotal** | 30

### Related Courses

Select courses from among the following or other courses in consultation with a faculty advisor for additional breadth, or to create a specialty emphasis area. 5

Select one of the following: 6

- AGEC 3503 Natural Resource Economics
- ENVR 4512 Environmental Impact Analysis
- ENVR 4813 Environmental Science Applications and Problem Solving

### Writing and Oral Communications

Select one of the following: 3

- AGCM 3103 Written Communications in Agricultural Sciences and Natural Resources
- BCOM 3113 Written Communication
- ENGL 3323 Technical Writing

Select one of the following: 3

- AGCM 3203 Oral Communications in Agricultural Sciences & Natural Resources (S)
- SPCH 2713 Introduction to Speech Communication (S)
- SPCH 3733 Elements of Persuasion (S)

### Hours Subtotal

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<tr>
<th>Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>NREM 1012</td>
<td>Introduction to Natural Resource Ecology and Management</td>
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<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
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<tr>
<td></td>
<td>BIOL 1604</td>
<td>Animal Biology</td>
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<tr>
<td></td>
<td>CHEM 1215</td>
<td>Chemical Principles I (LN)</td>
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<tr>
<td>or CHEM 1314</td>
<td>Chemistry I (LN)</td>
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<tr>
<td></td>
<td>CHEM 1225</td>
<td>Chemical Principles II (LN)</td>
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<tr>
<td>or CHEM 1515</td>
<td>Chemistry II (LN)</td>
<td>5</td>
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<tr>
<td></td>
<td>GEOL 1114</td>
<td>Physical Geology (LN)</td>
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<td>or PHYS 1014</td>
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<td><strong>Written and Oral Communications</strong></td>
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<td>Select one of the following:</td>
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<tr>
<td></td>
<td>AGCM 3103</td>
<td>Written Communications in Agricultural Sciences and Natural Resources</td>
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<tr>
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<td>BCOM 3113</td>
<td>Written Communication</td>
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<td>ENGL 3323</td>
<td>Technical Writing</td>
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<td>Select one of the following:</td>
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<tr>
<td></td>
<td>AGCM 3203</td>
<td>Oral Communications in Agricultural Sciences &amp; Natural Resources (S)</td>
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<td></td>
<td>SPCH 2713</td>
<td>Introduction to Speech Communication (S)</td>
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<tr>
<td></td>
<td>SPCH 3733</td>
<td>Elements of Persuasion (S)</td>
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### Diversity (D) & International Dimension (I)

May be completed in any part of the degree plan

Select at least one Diversity (D) course

Select at least one International Dimension (I) course

### College Requirements

**Agricultural Sciences and Natural Resources**

- AG 1011 First Year Seminar 1

### Natural Sciences

- BIOL 1604 Animal Biology 4
- CHEM 1215 Chemical Principles I (LN) 4
- CHEM 1225 Chemical Principles II (LN) 5
- CHEM 1314 Chemistry I (LN) 4
- CHEM 1515 Chemistry II (LN) 5
- GEOL 1114 Physical Geology (LN) 4
- or PHYS 1014 Descriptive Physics (N) 4

### Written and Oral Communications

Select one of the following: 3

- AGCM 3103 Written Communications in Agricultural Sciences and Natural Resources
- BCOM 3113 Written Communication
- ENGL 3323 Technical Writing

Select one of the following: 3

- AGCM 3203 Oral Communications in Agricultural Sciences & Natural Resources (S)
- SPCH 2713 Introduction to Speech Communication (S)
- SPCH 3733 Elements of Persuasion (S)
GEOG 3153 Conservation of Natural Resources (S)
HIST 4523 American Environmental History (H)
NREM 4043 Natural Resource Administration and Policy
NREM 4053 Natural Resource Recreation
POLS 4363 Environmental Law And Policy
POLS 4593 Natural Resources and Environmental Policy
SOC 4433 Environmental Sociology (S)

Select 7 hours of the following: 7

ANSI 3543 Principles of Animal Nutrition
BIOL 3023 General Genetics
BIOL 3114 Vertebrate Zoology
BIOL 3153 Animal Behavior
BIOL 3513 Principles of Conservation Biology
BIOL 4113 Conservation Genetics
BIOL 4133 Evolution
BIOL 4174 Mammalogy
BIOL 4273 Environmental Physiology
BIOL 4303 Organismal Ecotoxicology
BIOL 4363 Principles of Toxicology
GEOG 4343 Geographic Information Systems: Resource Management Applications
NREM 2013 Ecology of Natural Resources
NREM 2083 Geospatial Technologies for Natural Resources
NREM 3091 Field Applications of Geospatial Technologies for Natural Resources
NREM 3101 Forest Resource Field Studies
NREM 3111 Natural Resource Field Studies
NREM 3224 Silviculture
NREM 3502 Wildlife Law Enforcement
NREM 3503 Principles of Wildlife Ecology and Management
NREM 3613 Principles of Rangeland Management
NREM 4023 Restoration Ecology
NREM 4033 Ecology Of Invasive Species
NREM 4043 Natural Resource Administration and Policy
NREM 4053 Natural Resource Recreation
NREM 4093 Natural Resources, People and Sustainable Development (I)
NREM 4403 Wetland Ecology and Management
NREM 4524 Wildlife Management Techniques
NREM 4533 Wildlife Management for Game Species
NREM 4543 Wildlife Management for Biodiversity
NREM 4960 Undergraduate Internship
NREM 4980 Undergraduate Research
NREM 4990 Special Topics in Natural Resource Ecology and Management
PBIO 4005 Field Botany

Select 0 hours or hours to complete required total for degree 0

Total Hours

1. College & Departmental requirements that may be used to meet GE requirements.
2. If used as (N) course above, then hours are reduced by course hours.
3. If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.
4. If used as (S) course above, then hours are reduced by three.
5. May not use a course used above in Core Courses. Also may not use the same class for credit in both groups below.

Other Requirements

- Students must earn minimum grades of “C” or “P” in each course listed in Major Requirements.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2026.