ENVIROMENTAL SCIENCE:
WATER RESOURCES, BSAG

Requirements for Students Matriculating in or before Academic
Year 2018-2019. Learn more about University Academic Regulation
3.1 ([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: 124

**Code** | **Title** | **Hours**
--- | --- | ---
**General Education Requirements**

**English Composition**
See Academic Regulation 3.5 ([http://catalog.okstate.edu/university-academic-regulations/#english-composition](http://catalog.okstate.edu/university-academic-regulations/#english-composition))

- ENGL 1113  Composition I  3
- or ENGL 1313  Critical Analysis and Writing I

Select one of the following:
- ENGL 1213  Composition II
- ENGL 1413  Critical Analysis and Writing II
- ENGL 3323  Technical Writing

**American History & Government**
Select one of the following:
- HIST 1103  Survey of American History
- HIST 1483  American History to 1865
- HIST 1493  American History Since 1865
- POLS 1113  American Government  3

**Analytical & Quantitative Thought (A)**

- STAT 2013  Elementary Statistics (A)  3

**Humanities (H)**

Courses designated (H)  6

**Natural Sciences (N)**

Must include one Laboratory Science (L) course

- BIOL 1114  Introductory Biology (LN)  4

Course designated (N)  3

**Social & Behavioral Sciences (S)**

- AGEC 1113  Introduction to Agricultural Economics (S)  3
- AGCM 3203  Oral Communications in Agricultural Sciences & Natural Resources (S)  3
  - or SPCH 2713  Introduction to Speech Communication (S)

**Additional General Education**

Courses designated (A), (H), (N), or (S)  6

Hours Subtotal  40

**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/Departmental Requirements**

**Agricultural Sciences and Natural Resources**

- AG 1011  First Year Seminar  1
- ENVR 1113  Elements of Environmental Science  3
- SOIL 2124  Fundamentals of Soil Science (N)  4

Select one of the following:
- CHEM 3013  Survey of Organic Chemistry
- BIOC 2344  Chemistry and Applications of Biomolecules
- CHEM 3015  Survey of Organic Chemistry

**Additional Requirements**

If CHEM 1414 taken, then must have both CHEM 3015 and BIOC 2344

- PBIO 1404  Plant Biology (LN)  4
- or BIOL 1604  Animal Biology
- CHEM 1314  Chemistry I (LN)  4
  - or CHEM 1215  Chemical Principles I (LN)
- CHEM 1515  Chemistry II (LN)  5
  - or CHEM 1225  Chemical Principles II (LN)
- PHYS 1114  College Physics I (LN)  4

Select one of the following:
- PBIO 1214  College Physics II (LN)
- MATH 2144  Calculus I (A)
- GEOL 1114  Physical Geology (LN)

Select one of the following:
- MATH 1715  Precalculus (A)
- MATH 1513 & MATH 1613  College Algebra (A) and Trigonometry (A)

**Written and Oral Communications**

Select one of the following:
- BCOM 3113  Written Communication
- AGCM 3103  Written Communications in Agricultural Sciences and Natural Resources
- ENGL 3323  Technical Writing  2

Hours Subtotal  40

**Major Requirements**

**Core Courses**

- AGEC 3503  Natural Resource Economics  3
- BIOL 3034  General Ecology  4
- ENVR 3113  Sampling and Analyses for Solving Environmental Problems  3
- ENVR 4811  Professional and Capstone Planning  1
- ENVR 4813  Environmental Science Applications and Problem Solving  3

Select one of the following:
- NREM 4043  Natural Resource Administration and Policy  3
- ENVR 4512  Environmental Impact Analysis
- POLS 4363  Environmental Law And Policy
- NREM 4443  Watershed Hydrology and Water Quality  3
- ENVR 4893  Soil Chemistry and Environmental Quality  3
  - or BIOL 4303  Organismal Ecotoxicology

**Additional Core Courses**

- ENVR 4363  Environmental Soil Science
- ENVR 4893  Soil Chemistry and Environmental Quality
- ENVR 4913  Animal Waste Management
- SOIL 4683  Soil, Water, and Weather  3

Select one of the following:
- AGEC 3053  Water Use and Conservation
- AGEC 3113  Agricultural Water Resources
- AGEC 3152  Watershed Hydrology and Water Quality
Select one of the following:  
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4434</td>
<td>Limnology</td>
</tr>
<tr>
<td>GEOL 4453</td>
<td>Hydrogeology</td>
</tr>
</tbody>
</table>

**Related Courses**

Select 12 hours of the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>AGEC 3713</td>
<td>Agricultural Law</td>
</tr>
<tr>
<td>AGEC 4503</td>
<td>Environmental Economics and Resource Development</td>
</tr>
<tr>
<td>ANTH 3353</td>
<td>Cultural Anthropology (IS)</td>
</tr>
<tr>
<td>BCOM 3223</td>
<td>Oral Communication</td>
</tr>
<tr>
<td>CHEM 2113</td>
<td>Principles of Analytical Chemistry</td>
</tr>
<tr>
<td>CHEM 2122</td>
<td>Quantitative Analysis Laboratory</td>
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<tr>
<td>CIVE 3853</td>
<td>Environmental Engineering Laboratory</td>
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<tr>
<td>ECON 2103</td>
<td>Introduction to Microeconomics (S)</td>
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<tr>
<td>ECON 3903</td>
<td>Economics of the Environment</td>
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<tr>
<td>ENTO 2003</td>
<td>Insects and Society (N)</td>
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<tr>
<td>ENTO 2223</td>
<td>Insects in Global Public Health (N)</td>
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<tr>
<td>ENTO 2993</td>
<td>Introduction to Entomology (LN)</td>
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<tr>
<td>ENTO 4223</td>
<td>Ecological Methodology</td>
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<td>ENTO 4484</td>
<td>Aquatic Entomology</td>
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<td>ENV 2343</td>
<td>Environmental Soil Science</td>
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<tr>
<td>ENV 4893</td>
<td>Soil Chemistry and Environmental Quality</td>
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<td>ENV 4913</td>
<td>Animal Waste Management</td>
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<tr>
<td>GEOG 2344</td>
<td>Digital Tools for Environmental Exploration (LN)</td>
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<tr>
<td>GEOG 4203</td>
<td>Fundamentals of Geographic Information Systems</td>
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<tr>
<td>GEOL 3503</td>
<td>Environmental Geology</td>
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<tr>
<td>GEOL 4453</td>
<td>Hydrogeology</td>
</tr>
<tr>
<td>HORT 2123</td>
<td>Environmental Issues in Horticultural Science</td>
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<tr>
<td>LA 4423</td>
<td>Sustainable Planning and Design</td>
</tr>
<tr>
<td>LA 4433</td>
<td>Land Use and City Planning</td>
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<tr>
<td>MATH 2133</td>
<td>Calculus for Technology Programs II (A)</td>
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<tr>
<td>or MATH 2153</td>
<td>Calculus II (A)</td>
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<tr>
<td>MICR 2123</td>
<td>Introduction to Microbiology</td>
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<tr>
<td>MICR 2132</td>
<td>Introduction to Microbiology Laboratory</td>
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<tr>
<td>NREM 3083</td>
<td>Geospatial Technologies for Natural Resources</td>
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<tr>
<td>NREM 3613</td>
<td>Principles of Rangeland Management</td>
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<td>NREM 4033</td>
<td>Restoration Ecology</td>
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<td>NREM 4033</td>
<td>Ecology Of Invasive Species</td>
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<tr>
<td>NREM 4403</td>
<td>Wetland Ecology and Management</td>
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<tr>
<td>PBIO 3253</td>
<td>Environment and Society (N)</td>
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<tr>
<td>PBIO 3263</td>
<td>Plants and People (N)</td>
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<tr>
<td>PHYS 1214</td>
<td>College Physics II (LN)</td>
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<tr>
<td>or PHYS 2114</td>
<td>University Physics II (LN)</td>
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<tr>
<td>SOC 1113</td>
<td>Introductory Sociology (S)</td>
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<td>SOC 4433</td>
<td>Environmental Sociology (S)</td>
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<tr>
<td>SOIL 3433</td>
<td>Soil Genesis, Morphology, and Classification</td>
</tr>
<tr>
<td>SOIL 4234</td>
<td>Soil Nutrient Management</td>
</tr>
<tr>
<td>SOIL 4463</td>
<td>Soil and Water Conservation</td>
</tr>
</tbody>
</table>

**SOIL 4483**  
Soil Microbiology

**SOIL 4683**  
Soil, Water, and Weather

**BIOL 4303**  
Organismal Ecotoxicology

**BIOL 4434**  
Limnology

**Hours Subtotal**  
44

**Electives**

Select 0 hours or hours to complete required total for degree  

0  

Total Hours  
124

**Other Requirements**

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

**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 2024.

1. College & Departmental requirements that may be used to meet GE requirements.
2. If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above then hours in this block are 0.