

# NATURAL RESOURCE ECOLOGY & MANAGEMENT: WILDLIFE BIOLOGY & PREVETERINARY SCIENCE, BSAG

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about University Academic Regulation 3.1 (<http://catalog.okstate.edu/university-academic-regulations/#matriculation>).

**Minimum Overall Grade Point Average: 2.00**

**Total Hours: 130**

| Code  | Title   | Hours     |
|---|---|-----------|
| <b>General Education Requirements</b>   |   |           |
| <i>English Composition</i>  |   |           |
| See Academic Regulation 3.5 ( <a href="http://catalog.okstate.edu/university-academic-regulations/#english-composition/">http://catalog.okstate.edu/university-academic-regulations/#english-composition/</a> ) |   |           |
| ENGL 1113   | Composition I   | 3         |
| or ENGL 1313  | Critical Analysis and Writing I                         |           |
| Select one of the following:  |   | 3         |
| ENGL 1213   | Composition II  |           |
| ENGL 1413   | Critical Analysis and Writing II                        |           |
| ENGL 3323   | Technical Writing                                       |           |
| <i>American History &amp; Government</i>  |   |           |
| Select one of the following:  |   | 3         |
| HIST 1103   | Survey of American History                              |           |
| HIST 1483   | American History to 1865 (H)                            |           |
| HIST 1493   | American History Since 1865 (DH)                        |           |
| POLS 1113   | American Government                                     | 3         |
| <i>Analytical &amp; Quantitative Thought (A)</i>  |   |           |
| MATH 2103   | Business Calculus (A) <sup>1</sup>                      | 3         |
| STAT 2013   | Elementary Statistics (A) <sup>1</sup>                  | 3         |
| <i>Humanities (H)</i>   |   |           |
| Courses designated (H)  |   | 6         |
| <i>Natural Sciences (N)</i>   |   |           |
| Must include one Laboratory Science (L) course  |   |           |
| Select four hours from the following:   |   | 4         |
| BIOL 1113   | Introductory Biology (N)                                |           |
| & BIOL 1111   | and Introductory Biology Laboratory (LN) <sup>1</sup>   |           |
| BIOL 1114   | Introductory Biology (LN) <sup>1</sup>                  |           |
| Course designated (N)   |   | 3         |
| <i>Social &amp; Behavioral Sciences (S)</i>   |   |           |
| AGEC 1113   | Introduction to Agricultural Economics (S) <sup>1</sup> | 3         |
| <i>Additional General Education</i>   |   |           |
| Courses designated (A), (H), (N), or (S)  |   | 6         |
| <b>Hours Subtotal</b>   |   | <b>40</b> |
| <b>Diversity (D) &amp; International Dimension (I)</b>  |   |           |
| 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

|                                  |   |           |
|----------------------------------|---|-----------|
| CHEM 1314                        | Chemistry I (LN) <sup>2</sup>   | 4         |
| or CHEM 1215                     | Chemical Principles I (LN)  |           |
| Select one of the following:     |   | 3         |
| AGCM 3103                        | Written Communications in Agricultural Sciences and Natural Resources             |           |
| BCOM 3113                        | Written Communication   |           |
| ENGL 3323                        | Technical Writing <sup>3</sup>  |           |
| Select one of the following:     |   | 3         |
| AGCM 3203                        | Oral Communications in Agricultural Sciences & Natural Resources (S) <sup>4</sup> |           |
| SPCH 2713                        | Introduction to Speech Communication (S) <sup>4</sup>                             |           |
| SPCH 3733                        | Elements of Persuasion (S) <sup>4</sup>   |           |
| AG 1011                          | First Year Seminar  | 1         |
| Select one of the following:     |   | 4         |
| SOIL 2124                        | Fundamentals of Soil Science (N)  |           |
| ENTO 4484                        | Aquatic Entomology  |           |
| NREM 3013                        | Applied Ecology and Conservation  | 3         |
| <b>Departmental Requirements</b> |   |           |
| Select one of the following:     |   | 4         |
| BIOL 1604                        | Animal Biology  |           |
| NREM 2134                        | Dendrology  |           |
| NREM 1012                        | Introduction to Natural Resource Ecology and Management                           | 2         |
| NREM 2083                        | Geospatial Technologies for Natural Resources                                     | 3         |
| NREM 3012                        | Applied Ecology Laboratory  | 2         |
| NREM 3503                        | Principles of Wildlife Ecology and Management                                     | 3         |
| NREM 4001                        | Issues In Global Change   | 1         |
| NREM 4043                        | Natural Resource Administration and Policy  | 3         |
| PBIO 1404                        | Plant Biology (LN) <sup>2</sup>   | 4         |
| <b>Hours Subtotal</b>            |   | <b>40</b> |
| <b>Major Requirements</b>        |   |           |
| <i>Core Courses</i>              |   |           |
| ANSI 3543                        | Principles of Animal Nutrition  | 3         |
| Select one of the following:     |   | 3         |
| BIOC 3653                        | Survey of Biochemistry  |           |
| BIOC 3713                        | Biochemistry I  |           |
| BIOC 3723                        | Biochemistry and Molecular Biology Laboratory                                     |           |
| BIOL 3023                        | General Genetics  | 3         |
| CHEM 1515                        | Chemistry II (LN) <sup>2</sup>  | 5         |
| Select one of the following:     |   | 5         |
| CHEM 3013                        | Survey of Organic Chemistry   |           |
| & CHEM 3012                      | and Survey of Organic Chemistry Laboratory  |           |

or

|  |   |            |
|--|---|------------|
| CHEM 3053<br>& CHEM 3153<br>& CHEM 3112  | Organic Chemistry I<br>and Organic Chemistry II<br>and Organic Chemistry Laboratory |            |
| NREM 4522  | Wildlife Management Applications and<br>Planning                                    | 2          |
| NREM 4523  | Wildlife Management Techniques  | 3          |
| BIOL 3204  | Physiology  | 4          |
| MICR 2123  | Introduction to Microbiology  | 3          |
| MICR 2132  | Introduction to Microbiology Laboratory   | 2          |
| PHYS 1114  | College Physics I (LN) <sup>2</sup>   | 4          |
| PHYS 1214  | College Physics II (LN) <sup>2</sup>  | 4          |
| <i>Related Courses</i>   |   |            |
| Select courses from among the options, or other courses in<br>consultation with a faculty advisor for additional breadth, or to<br>create a specialty emphasis area <sup>5</sup> |   | 9          |
| Select an option (p. 2)  |   |            |
| <b>Hours Subtotal</b>  |   | <b>50</b>  |
| <i>Electives</i>   |   |            |
| Select 0 hours or hours to complete required total for degree  |   | 0          |
| <b>Total Hours</b>   |   | <b>130</b> |

1

College & Departmental requirements that may be used to meet General Education 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.

## Options

### Option 1

| Code                             | Title  | Hours |
|----------------------------------|--|-------|
| Select two of the following:     |  | 7     |
| NREM 4464                        | Ornithology                                      |       |
| BIOL 4184                        | Herpetology                                      |       |
| BIOL 4413                        | Biology of Fishes                                |       |
| BIOL 4174                        | Mammalogy  |       |
| Select 2 hours of the following: |  | 2     |
| AG 3010                          | Internships in Agriculture                       |       |
| ANSI 1124                        | Introduction to the Animal Sciences              |       |
| ANSI 3444                        | Animal Reproduction                              |       |
| ANSI 3653                        | Applied Animal Nutrition                         |       |
| ANSI 3753                        | Basic Nutrition for Pets                         |       |
| BIOC 3713                        | Biochemistry I <sup>3</sup>                      |       |
| BIOC 3723                        | Biochemistry and Molecular Biology<br>Laboratory |       |
| BIOC 3813                        | Biochemistry II                                  |       |
| BIOL 3114                        | Vertebrate Zoology                               |       |

|           |  |
|-----------|--|
| BIOL 3153 | Animal Behavior  |
| BIOL 3163 | Environmental Biology  |
| BIOL 3513 | Principles of Conservation Biology                                     |
| BIOL 4104 | General Parasitology   |
| BIOL 4113 | Conservation Genetics  |
| BIOL 4215 | Mammalian Physiology   |
| BIOL 4223 | Mammalian Physiology Capstone<br>Laboratory                            |
| BIOL 4273 | Environmental Physiology   |
| BIOL 4283 | Endocrinology  |
| BIOL 4293 | Behavioral Neuroendocrinology  |
| BIOL 4303 | Organismal Ecotoxicology   |
| BIOL 4363 | Principles of Toxicology   |
| ENTO 2993 | Introduction to Entomology (LN)  |
| ENTO 3003 | Livestock Entomology   |
| ENTO 4854 | Medical and Veterinary Entomology                                      |
| GEOG 4203 | Fundamentals of Geographic Information<br>Systems                      |
| GEOG 4343 | Geographic Information Systems: Resource<br>Management Applications    |
| MICR 3033 | Cell and Molecular Biology   |
| MICR 3143 | Medical Mycology   |
| MICR 3223 | Advanced Microbiology  |
| MICR 4123 | Virology   |
| NREM 3091 | Field Applications of Geospatial<br>Technologies for Natural Resources |
| NREM 3101 | Forest Resource Field Studies  |
| NREM 3111 | Natural Resource Field Studies   |
| NREM 3143 | Forest Biology   |
| NREM 3153 | Forest Health and Disturbance Ecology                                  |
| NREM 3224 | Silviculture   |
| NREM 3502 | Wildlife Law Enforcement   |
| NREM 3613 | Principles of Rangeland Management                                     |
| NREM 4023 | Restoration Ecology  |
| NREM 4033 | Ecology Of Invasive Species  |
| NREM 4093 | Natural Resources, People and Sustainable<br>Development (I)           |
| NREM 4403 | Wetland Ecology and Management   |
| NREM 4414 | Fisheries Management   |
| NREM 4424 | Fisheries Techniques   |
| NREM 4452 | Pond Management  |
| NREM 4453 | Aquaculture  |
| NREM 4464 | Ornithology  |
| NREM 4533 | Wildlife Management for Game Species                                   |
| NREM 4543 | Wildlife Management for Biodiversity                                   |
| NREM 4613 | Rangeland Resources Planning   |
| NREM 4783 | Prescribed Fire  |
| NREM 4793 | Advanced Prescribed Fire   |
| NREM 4960 | Undergraduate Internship   |
| NREM 4980 | Undergraduate Research   |
| NREM 4990 | Special Topics in Natural Resource Ecology<br>and Management           |

|           |  |
|-----------|--|
| PBIO 4005 | Field Botany                           |
| PLNT 1213 | Introduction to Plant and Soil Systems |

## Option 2

Complete the first year of professional program.

With the approval of the advisor, department head, and dean, a maximum of 9 hours from an accredited dental, medical, optometry, osteopathic, pharmacy, podiatry, or veterinary medical school may be used to complete hours.

## 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.
- 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 2028.