

**Degree Title**  
**Arkansas State University - Jonesboro**  
**Bachelor of Science**  
**Major: Wildlife, Fisheries & Conservation—Wildlife Emphasis**  
**2023-2024**

Students requiring developmental course work based on low entrance exam scores (ACT, SAT, ASSET, COMPASS) may not be able to complete this program of study in eight (8) semesters. Developmental courses do not count toward total degree hours. **Students having completed college level courses prior to enrollment will be assisted by their advisor in making appropriate substitutions. In most cases, general education courses may be interchanged between semesters.** A minimum of 45 hours of upper division credit (3000-4000 level) is required for this degree. It is important to note that some upper-level degree requirements may be courses that are only offered once every two years. Students and advisors must become familiar with the cycle of teaching these courses. Students and advisors must also be aware that some courses may be taught only in Fall or Spring semesters. Mandatory state and institutional assessment exams will be required during your degree program. **Failure to participate in required assessments may delay graduation.**

Pre-requisites that dictate the sequence of some courses:

- **CHEM 1011 & CHEM 1013 General Chemistry I and the lab** require **MATH 1023 College Algebra** or an ACT composite  $\geq 23$ .
- **MATH 1023 College Algebra** requires ACT Math  $\geq 21$
- **MATH 1054 Precalculus** requires **MATH 1023 College Algebra** or ACT Math  $\geq 23$ .
- **MATH 2194 Survey of Calculus** requires **MATH 1023 College Algebra** or **MATH 1054 Precalculus** or ACT Math  $\geq 26$ .
- **MATH 2204 Calculus I** requires **MATH 1023 College Algebra** or **MATH 1054 Precalculus** or ACT  $\geq 26$ .
- **BIO 4043 Biometry** requires **MATH 1023 College Algebra**.
- **STAT 3233 Applied Statistics I** requires **MATH 1023 College Algebra**.
- **PSSC 2811 & PSSC 2813 Soils and the lab** require **CHEM 1011 & CHEM 1013 General Chemistry I and the lab**.
- **BIO 2011 & BIO 2013 Biology of the Cell and the lab** require **CHEM 1011 & CHEM 1013 General Chemistry I and the lab**.
- **BIO 3011 & BIO 3013 Genetics and the lab** require **BIO 2011 & BIO 2013 Biology of the Cell and the lab**.
- Most botany, aquatic, wildlife, and zoology electives require **BIO 1301 & BIO 1303 Biology of Animals and the lab** and/or **BIO 1501 & BIO 1503 Biology of Plants and the lab**. However, some electives (e.g., BIO 4301 & BIO 4302 Aquatic Entomology and the lab, BIO 4372 Applied Fisheries) have additional pre-requisites.
- **BIO 4651 & BIO 4653 Wildlife Management and the lab** require **BIO 1301 & BIO 1303 Biology of Animals and the lab**.
- **BIO 4661 & BIO 4663 Wildlife Management Investigational Techniques and the lab** require **BIO 1301 & BIO 1303 Biology of Animals and the lab**.
- **BIO 4704 Plant Systematics** requires **BIO 1501 & BIO 1503 Biology of Plants and the lab**.
- **BIO 3023 Principles of Ecology** requires **BIO 1301 & BIO 1303 Biology of Animals and the lab** **and** **BIO 1501 & BIO 1503 Biology of Plants and the lab**.
- **BIO 4371 & BIO 4373 Animal Ecology and the lab** require **BIO 3023 Principles of Ecology**.
- **BIO 4613 Conservation Biology** requires **BIO 3023 Principles of Ecology**.
- **AGST 3543 Fundamentals of GIS and GPS** requires **COMS 1203 Oral Communication**, **ENG 1013 Composition I**, **MATH 1023 College Algebra**, and **BIO 3203 Principles of Ecology**.

The following examples do not account for the foreign language requirement. Two semesters of a foreign language are required unless taken in high school. This should be discussed with your advisor. If you need to take foreign language courses, choose the lightest semesters.

**If the first semester is an odd-year fall semester (e.g., Fall 2023)**

| Year 1                   |   |       |        | Year 1                    |                           |       |        |  |
|--------------------------|---|-------|--------|---------------------------|---------------------------|-------|--------|--|
| Fall Semester            |   |       |        | Spring Semester           |                           |       |        |  |
| Course No.               | Course Name   | Hrs   | Gen Ed | Course No.                | Course Name               | Hrs   | Gen Ed |  |
| BIO 1013                 | Biology Making Connections  | 3     |        | BIO 1503 +<br>BIO 1501    | Biology of Plants + Lab   | 3 + 1 |        |  |
| BIO 1303 +<br>BIO 1301   | Biology of Animals + Lab  | 3 + 1 |        | CHEM 1013 +<br>CHEM 1011  | General Chemistry I + Lab | 3 + 1 | X      |  |
| ENG 1003                 | Composition I   | 3     | X      | ENG 1013                  | Composition II            | 3     | X      |  |
| MATH 1054                | Precalculus (if ACT Math $\geq$ 24)                               | 3-4   | X      | MATH 2194                 | Survey of Calculus        | 4     | X      |  |
|                          | OR  |       |        |                           |                           |       |        |  |
| MATH 1023                | College Algebra   |       |        |                           |                           |       |        |  |
|                          | Elective (1000-4000 level)  | 1-2   |        |                           |                           |       |        |  |
| <b>Total Hours</b>       |   | 14-16 |        | <b>Total Hours</b>        |                           | 15    |        |  |
| Year 2                   |   |       |        | Year 2                    |                           |       |        |  |
| Fall Semester            |   |       |        | Spring Semester           |                           |       |        |  |
| Course No.               | Course Name   | Hrs   | Gen Ed | Course No.                | Course Name               | Hrs   | Gen Ed |  |
| BIO 2013 +<br>BIO 2011   | Biology of the Cell + Lab   | 3 + 1 | X      | BIO 3023                  | Principles of Ecology     | 3     |        |  |
| ENG 3063                 | Writing for STEM (communication elective that goes with BIO 2011) | 3     |        | PSSC 2813 +<br>PSSC 2811  | Soils + Lab               | 4     |        |  |
| COMS 1203                | Oral Communication  | 3     | X      | Choose one the following: |                           |       |        |  |
| CHEM 1023 +<br>CHEM 1021 | General Chemistry II + Lab  | 3 + 1 |        | BIO 4312 +<br>BIO 4311    | Fisheries Biology + Lab   | 3-4   |        |  |
|                          | Fine Arts   | 3     | X      | BIO 4402 +<br>BIO 4401    | Ichthyology + Lab         |       |        |  |
|                          |   |       |        |                           | Zoology elective #1       |       |        |  |
|                          |   |       |        |                           | Social Science #2         | 3     | X      |  |
|                          |   |       |        |                           |                           |       |        |  |
| <b>Total Hours</b>       |   | 14    |        | <b>Total Hours</b>        |                           |       |        |  |

| Year 3                   |   |           |        | Year 3                    |                                      |                              |        |  |
|--------------------------|---|-----------|--------|---------------------------|--------------------------------------|------------------------------|--------|--|
| Fall Semester            |   |           |        | Spring Semester           |                                      |                              |        |  |
| Course No.               | Course Name   | Hrs       | Gen Ed | Course No.                | Course Name                          | Hrs                          | Gen Ed |  |
|                          | Choose one of the following:                            | 3-4       |        | BIO 4613                  | Conservation Biology                 | 3                            |        |  |
| BIO 4352 +<br>BIO 4351   | Mammalogy + Lab   |           |        |                           | OR                                   |                              |        |  |
|                          | Zoology elective #1 or #2                               |           |        | POSC 4533                 | Environmental Law and Administration |                              |        |  |
|                          | Freshwater Mussels                                      |           |        | BIO 3013 +<br>BIO 3011    | Genetics + Lab                       | 3 + 1                        |        |  |
|                          | Botany elective   | 3-4       |        | BIO 4663 +<br>BIO 4661    | Wildlife Management Techniques + Lab | 3 + 1                        |        |  |
| BIO 4413                 | Wildlife Internship                                     | 3         |        |                           | Choose one of the following:         | 3-4                          |        |  |
| BIO 3673                 | Human Dimensions in Wildlife                            | 3         |        | BIO 4453 +<br>BIO 4411    | Herpetology + Lab                    |                              |        |  |
|                          | US History (to or since 1876) or<br>American Government | 3         | X      | BIO 4423 +<br>BIO 4421    | Ornithology + Lab                    |                              |        |  |
|                          |   |           |        |                           | Zoology elective #1 or #2            |                              |        |  |
| <b>Total Hours</b>       |   | 14-16     |        | <b>Total Hours</b>        |                                      | 14-15                        |        |  |
| <b>Year 4</b>            |   |           |        | <b>Year 4</b>             |                                      |                              |        |  |
| <b>Fall Semester</b>     |   |           |        | <b>Spring Semester</b>    |                                      |                              |        |  |
| Course No.               | Course Name   | Hrs       | Gen Ed | Course No.                | Course Name                          | Hrs                          | Gen Ed |  |
|                          | Upper Level Elective + lab (3000-4000<br>Level)         | 3 + 1     |        | BIO 4021                  | Biological Seminar                   | 1                            |        |  |
| BIO 4653 +<br>BIO 4651   | Wildlife Management + Lab                               | 3 + 1     |        | BIO 4704                  | Plant Systematics                    | 4                            |        |  |
| BIO 4043                 | Biometry  | 3         |        | AGRI 3543                 | Fundamentals of GIS/GPS              | 3                            |        |  |
|                          | OR  |           |        |                           |                                      | Choose two of the following: | 7-8    |  |
| STAT 3233                | Applied Stat I  |           |        | BIO 4453 +<br>BIO 4411    | Herpetology + Lab                    |                              |        |  |
|                          | Humanities  | 3         | X      | BIO 4423 +<br>BIO 4421    | Ornithology + Lab                    |                              |        |  |
|                          |   |           |        |                           | Zoology elective #2                  |                              |        |  |
| <b>Total Hours</b>       |   | 14        |        | <b>Total Hours</b>        |                                      | 15-16                        |        |  |
| <b>Total Jr/Sr Hours</b> |   | <b>59</b> |        | <b>Total Degree Hours</b> |                                      | <b>120</b>                   |        |  |

If the first semester is an even-year Spring semester (e.g., Spring 2024)

| Year 1                   |   |       |        | Year 1                    |                           |       |        |  |
|--------------------------|---|-------|--------|---------------------------|---------------------------|-------|--------|--|
| Fall Semester            |   |       |        | Spring Semester           |                           |       |        |  |
| Course No.               | Course Name   | Hrs   | Gen Ed | Course No.                | Course Name               | Hrs   | Gen Ed |  |
| BIO 1013                 | Biology Making Connections  | 3     |        | BIO 1503 +<br>BIO 1501    | Biology of Plants + Lab   | 3 + 1 |        |  |
| BIO 1303 +<br>BIO 1301   | Biology of Animals + Lab  | 3 + 1 |        | CHEM 1013 +<br>CHEM 1011  | General Chemistry I + Lab | 3 + 1 | X      |  |
| ENG 1003                 | Composition I   | 3     | X      | ENG 1013                  | Composition II            | 3     | X      |  |
| MATH 1054                | Precalculus (if ACT Math $\geq$ 24)                               | 3-4   | X      | MATH 2194                 | Survey of Calculus        | 4     | X      |  |
|                          | OR  |       |        |                           |                           |       |        |  |
| MATH 1023                | College Algebra   |       |        |                           |                           |       |        |  |
|                          | Elective (1000-4000 level)  |       |        |                           |                           |       |        |  |
| <b>Total Hours</b>       |   | 15    |        | <b>Total Hours</b>        |                           | 15    |        |  |
| Year 2                   |   |       |        | Year 2                    |                           |       |        |  |
| Fall Semester            |   |       |        | Spring Semester           |                           |       |        |  |
| Course No.               | Course Name   | Hrs   | Gen Ed | Course No.                | Course Name               | Hrs   | Gen Ed |  |
| BIO 2013 +<br>BIO 2011   | Biology of the Cell + Lab   | 3 + 1 | X      | BIO 3023                  | Principles of Ecology     | 3     |        |  |
| ENG 3063                 | Writing for STEM (communication elective that goes with BIO 2011) | 3     |        | PSSC 2813 +<br>PSSC 2811  | Soils + Lab               | 4     |        |  |
| COMS 1203                | Oral Communication  | 3     | X      | Choose one the following: |                           |       |        |  |
| CHEM 1023 +<br>CHEM 1021 | General Chemistry II + Lab  | 3 + 1 |        | BIO 4353 +<br>BIO 4411    | Herpetology + Lab         | 3-4   |        |  |
|                          | Social Science #1   | 3     | X      | BIO 4423 +<br>BIO 4421    | Ornithology + Lab         |       |        |  |
|                          |   |       |        |                           | Zoology elective #1       |       |        |  |
|                          |   |       |        |                           | Social Science #2         | 3     | X      |  |
|                          |   |       |        |                           | Fine Arts                 | 3     | X      |  |
| <b>Total Hours</b>       |   | 17    |        | <b>Total Hours</b>        |                           | 16-17 |        |  |

| Year 3                   |   |       |           | Year 3                    |                                      |       |                                      |
|--------------------------|---|-------|-----------|---------------------------|--------------------------------------|-------|--------------------------------------|
| Fall Semester            |   |       |           | Spring Semester           |                                      |       |                                      |
| Course No.               | Course Name   | Hrs   | Gen Ed    | Course No.                | Course Name                          | Hrs   | Gen Ed                               |
| BIO 4043                 | Biometry  | 3     |           | BIO 4613                  | Conservation Biology                 | 3     |                                      |
|                          | OR  |       |           |                           | OR                                   |       |                                      |
| STAT 3233                | Applied Stat I  |       |           |                           | POSC 4533                            |       | Environmental Law and Administration |
| BIO 4373 +<br>BIO 4371   | Animal Ecology + Lab                                    | 3 + 1 |           | BIO 3013 +<br>BIO 3011    | Genetics + Lab                       | 3 + 1 |                                      |
| BIO 4413                 | Wildlife Internship                                     | 3     |           | BIO 4663 +<br>BIO 4661    | Wildlife Management Techniques + Lab | 3 + 1 |                                      |
| BIO 3673                 | Human Dimensions in Wildlife                            | 3     |           |                           | Choose one of the following:         | 3-4   |                                      |
|                          | US History (to or since 1876) or<br>American Government | 3     | X         | BIO 4312 +<br>BIO 4311    | Fisheries Biology + Lab              |       |                                      |
|                          |   |       |           | BIO 4402 +<br>BIO 4401    | Ichthyology + Lab                    |       |                                      |
|                          |   |       |           |                           | Zoology elective #1 or #2            |       |                                      |
| <b>Total Hours</b>       |   | 16    |           | <b>Total Hours</b>        |                                      | 14-15 |                                      |
| Year 4                   |   |       |           | Year 4                    |                                      |       |                                      |
| Fall Semester            |   |       |           | Spring Semester           |                                      |       |                                      |
| Course No.               | Course Name   | Hrs   | Gen Ed    | Course No.                | Course Name                          | Hrs   | Gen Ed                               |
| BIO 4653 +<br>BIO 4651   | Wildlife Management + Lab                               | 3 + 1 |           | BIO 4021                  | Biological Seminar                   | 1     |                                      |
|                          | Botany elective   | 3-4   |           | BIO 4704                  | Plant Systematics                    | 4     |                                      |
|                          | Choose two of the following:                            | 6-8   |           | AGRI 3543                 | Fundamentals of GIS/GPS              | 3     |                                      |
| BIO 4352 +<br>BIO 4351   | Mammalogy + Lab   |       |           |                           | Choose one or two of the following*: | 3-8   |                                      |
|                          | Freshwater Mussels                                      |       |           | BIO 4453 +<br>BIO 4411    | Herpetology + Lab                    |       |                                      |
|                          | Zoology elective #1 or #2                               |       |           | BIO 4423 +<br>BIO 4421    | Ornithology + Lab                    |       |                                      |
|                          | Humanities  | 3     | X         |                           | Zoology elective #2                  |       |                                      |
| <b>Total Hours</b>       |   | 16-18 |           | <b>Total Hours</b>        |                                      | 11-16 |                                      |
| <b>Total Jr/Sr Hours</b> |   |       | <b>59</b> | <b>Total Degree Hours</b> |                                      |       | <b>120</b>                           |

\*Depending on the scenario, they may only need one option in that last semester for only ~11 hrs, which is not ideal:

| Scenario | Spring of Year 2                                      | Spring of Year 3  | Fall of Year 4   | Spring of Year 4                                      | Total        |
|----------|---|---|--|---|--------------|
| 1        | Herpetology or<br>Ornithology<br><b>Total hrs: 17</b> | Ichthyology or<br>Fisheries Biology<br><b>Total hrs: 14</b> | Mammalogy +<br>Zoology elective 1<br><b>Total hrs: 16-18</b>                   | Zoology elective 2<br><b>Total hrs: 11-12</b>         | <b>58-61</b> |
| 2        | Herpetology or<br>Ornithology<br><b>Total hrs: 17</b> | Ichthyology or<br>Fisheries Biology<br><b>Total hrs: 14</b> | Fresh. Mussel as zoo elective 1 +<br>Zoo elective 2<br><b>Total hrs: 16-18</b> | Herpetology or<br>Ornithology<br><b>Total hrs: 12</b> | <b>59-61</b> |
| 3        | Herpetology or<br>Ornithology<br><b>Total hrs: 17</b> | Zoology elective 1<br><b>Total hrs: 14-15</b>               | Mammalogy +<br>Fresh. Mussel<br><b>Total hrs: 16-17</b>                        | Zoology elective 2<br><b>Total hrs: 11-12</b>         | <b>58-61</b> |
| 4        | Herpetology or<br>Ornithology<br><b>Total hrs: 17</b> | Zoology elective 1<br><b>Total hrs: 14-15</b>               | Fresh. Mussel +<br>Zoology elective 2<br><b>Total hrs: 16-18</b>               | Herpetology or<br>Ornithology<br><b>Total hrs: 12</b> | <b>59-62</b> |

|   |  |  |   |  |       |
|---|--|--|---|--|-------|
| 5 | Herpetology or<br>Ornithology<br>Total hrs: 17 | Zoology elective 1<br>Total hrs: 14-15               | Mammalogy +<br>Zoology elective 2<br>Total hrs: 16-17 | Let's hope there is<br>an aquatic<br>elective.** |       |
| 6 | Zoology elective 1<br>Total hrs: 16-17         | Ichthyology or<br>Fisheries Biology<br>Total hrs: 14 | Mammalogy +<br>Zoology elective 2<br>Total hrs: 16-18 | Herpetology or<br>Ornithology<br>Total hrs: 12   | 58-61 |
| 7 | Zoology elective 1<br>Total hrs: 16-17         | Ichthyology or<br>Fisheries Biology<br>Total hrs: 14 | Zoology elective 2<br>Total hrs: 12-14                | Herpetology +<br>Ornithology<br>Total hrs: 16    | 58-61 |
| 8 | Zoology elective 1<br>Total hrs: 16-17         | Zoology elective 2<br>Total hrs: 14-15               | Mammalogy +<br>Fresh. Mussel<br>Total hrs: 16-17      | Herpetology or<br>Ornithology<br>Total hrs: 12   | 58-62 |

\*\* Odd-year springs general don't have any but maybe Applied Aquaculture or Applied Fisheries