# BIOLOGY - ORGANISMAL BIOLOGY (BACHELOR OF SCIENCE)

Organismal Biology is intended for those majors who plan graduate study in organismal biology (plant or animal biology), or who plan to pursue careers in biological education or conservation biology or as a naturalist.

| Course | Title | Credits |
|---|---|---|
| **Jax MIX General Education Curriculum** | | **41** |

The requirements for the major in Biology are:

| Course | Title | Credits |
|---|---|---|
| **Freshman Biology Sequence** | | |
| BY 101 | Introductory Biology I | 3 |
| BY 102 | Introductory Biology II | 3 |
| BY 103 | Introductory Biology Lab I | 1 |
| BY 104 | Introductory Biology Lab II | 1 |
| **Biology Core Courses** | | |
| BY 322 | Genetics (WI) | 4 |
| BY 324 | Introduction to Evolutionary Biology | 3 |
| BY 332 | Ecology | 4 |
| BY 373 | Cell Biology | 4 |
| **Biology concentration (see requirements below)** | | **15** |
| **Senior Seminar** | | |
| BY 496 | Senior Seminar (WI) | 1 |
| **Freshman Chemistry Sequence** | | |
| CY 105 | General Chemistry I | 3 |
| CY 106 | General Chemistry II | 3 |
| CY 107 | General Chemistry Laboratory I | 1 |
| CY 108 | General Chemistry Laboratory II | 1 |
| **Organic Chemistry sequence** | | |
| CY 231 | Organic Chemistry I | 4 |
| CY 232 | Organic Chemistry II | 4 |
| **Mathematics** | | |
| Select one of the following: | | 3-4 |
| MS 113 | Precalculus Trigonometry | |
| MS 125 | Calculus I | |
| or higher | | |
| **Computer Science** | | |
| CS 201 | Introduction to Information Technology | 3 |
| **Physics Sequence** | | |
| PHS 201<br>& PHS 203 | College Physics I<br>and College Physics Laboratory Techniques I | 4 |
| PHS 202<br>& PHS 204 | College Physics II<br>and College Physics Laboratory Techniques II | 4 |
| **Total Hours** | | **69-70** |

The requirements for the concentration in Organismal Biology are:

| Course | Title | Credits |
|---|---|---|
| BY 300+ Electives | | 15 |
| **Total Hours** | | **15** |

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.* **More information about Jax MIX requirements (https://catalog.jsu.edu/undergraduate/jax-mix-requirements/) and Alabama Transfers equivalents (https://catalog.jsu.edu/undergraduate/alabama-transfers-equivalents/) can be found in their respective section of the catalog.**

**Freshman**

| **Fall** | | **Hours** |
|---|---|---|
| Jax MIX Communication: EH Composition sequence | | 3 |
| BY 101<br>& BY 103 | Introductory Biology I<br>and Introductory Biology Lab I (Jax MIX Inquiry) | 4 |
| MS 112 | Precalculus Algebra (or higher - Jax MIX Communication) | 3 |
| CY 105<br>& CY 107 | General Chemistry I<br>and General Chemistry Laboratory I | 4 |
| SSC 101 | First Year Experience | 0 |
| | **Hours** | **14** |
| **Spring** | | |
| Jax MIX Communication: EH Composition sequence | | 3 |
| BY 102<br>& BY 104 | Introductory Biology II<br>and Introductory Biology Lab II (Jax MIX Inquiry) | 4 |
| CY 106<br>& CY 108 | General Chemistry II<br>and General Chemistry Laboratory II | 4 |
| MS 113 | Precalculus Trigonometry (or higher) | 3 |
| | **Hours** | **14** |
| **Sophomore** | | |
| **Fall** | | |
| Jax MIX Expression: Literature | | 3 |
| Jax MIX Experience: History sequence | | 3 |
| CY 231 | Organic Chemistry I | 4 |
| Biology Core | | 4 |
| | **Hours** | **14** |
| **Spring** | | |
| Jax MIX Expression: Literature | | 3 |
| Jax MIX Experience: History sequence | | 3 |
| CS 201 | Introduction to Information Technology | 3 |
| CY 232 | Organic Chemistry II | 4 |
| Biology Core | | 4 |
| | **Hours** | **17** |
| **Junior** | | |
| **Fall** | | |
| EH 141 | Speech (Jax MIX Communication) | 3 |
| PHS 201<br>& PHS 203 | College Physics I<br>and College Physics Laboratory Techniques I [1] | 4 |
| Biology Core | | 4 |
| Biology Concentration Elective | | 4 |
| | **Hours** | **15** |
| **Spring** | | |
| Jax MIX Experience: Social/Behavioral Science | | 3 |
| PHS 202<br>& PHS 204 | College Physics II<br>and College Physics Laboratory Techniques II [1] | 4 |
| Biology Core | | 3 |
| Biology Concentration Elective | | 4 |
| | **Hours** | **14** |
| **Senior** | | |
| **Fall** | | |
| Jax MIX Expression: Fine Arts | | 3 |
| Jax MIX Experience: Social/Behavioral Science | | 3 |

| | | |
|---|---|---|
| Biology Concentration Elective | | 4 |
| Electives | | 6 |
| | **Hours** | **16** |
| **Spring** | | |
| BY 496 | Senior Seminar (WI) | 1 |
| Biology Concentration Elective | | 3 |
| Electives | | 12 |
| | **Hours** | **16** |
| | **Total Hours** | **120** |

1 Students may elect to take calculus-based PHS 221 Physics for Scientists and Engineers I w/Lab (4)/PHS 222 Physics for Scientists and Engineers II w/Lab (4) in place of PHS 201 College Physics I (3)/PHS 202 College Physics II (3).