

BIOLOGY (B.A. OR B.S.)

To graduate in this program, students must earn a minimum grade of 'C' in BIOL 114, BIOL 115, and BIOL 115L. Required course work includes the university requirements (see regulation J-3 (<https://catalog.uidaho.edu/general-requirements-academic-procedures/j-general-requirements-baccalaureate-degrees/#j3>)) and:

| Code | Title | Hours |
|--|--|-------|
| BIOL 101 | Opportunities in Biological Sciences | 1 |
| BIOL 114 | Organisms and Environments | 4 |
| BIOL 115 & 115L | Cells and the Evolution of Life and Cells and the Evolution of Life Laboratory | 4 |
| BIOL 213 | Structure and Function Across the Tree of Life | 4 |
| BIOL 300 or BIOL 380 | Survey of Biochemistry Biochemistry I | 3-4 |
| BIOL 310 | Genetics | 3 |
| BIOL 312 | Molecular and Cellular Biology | 3 |
| BIOL 313 | Molecular and Cellular Laboratory | 1 |
| BIOL 314 | Ecology and Population Biology | 4 |
| BIOL 315 | Genetics Lab | 1 |
| BIOL 400 | Seminar | 1-16 |
| BIOL 421 | Advanced Evolution/Population Dynamics | 3 |
| CHEM 111 & 111L | General Chemistry I and General Chemistry I Laboratory | 4 |
| CHEM 112 & 112L | General Chemistry II and General Chemistry II Laboratory | 5 |
| CHEM 277 & CHEM 278 | Organic Chemistry I and Organic Chemistry I: Lab | 4 |
| MATH 170 | Calculus I | 4 |
| STAT 251 or STAT 301 | Statistical Methods Probability and Statistics | 3 |
| Select one of the following Senior Experience courses: | | 2-3 |
| BIOL 401 | Undergraduate Research (Max 8 credits) | |
| BIOL 407 | Practicum in Biology Laboratory Teaching (Max 12 credits) | |
| BIOL 408 | Human Anatomy and Physiology Laboratory Pedagogy (Max 8 credits) | |
| BIOL 411 | Senior Capstone | |
| BIOL 425 | Experimental Field Ecology | |
| Select one of the following: | | 3 |
| ENGL 207 | Persuasive Writing | |
| ENGL 208 | Personal & Exploratory Writing | |
| ENGL 317 | Technical Writing II | |
| ENGL 318 | Science Writing | |
| Select one of the following: | | 4 |
| PHYS 111 & 111L | General Physics I and General Physics I Lab | |
| PHYS 211 & 211L | Engineering Physics I and Laboratory Physics I | |
| Select one of the following: | | 4 |
| PHYS 112 & 112L | General Physics II and General Physics II Lab | |

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|---|--|----|
| PHYS 212 & 212L | Engineering Physics II and Laboratory Physics II | |
| Select 14 credits of approved electives from the following: | | 14 |
| BIOL 425 | Experimental Field Ecology | |
| BIOL 428 | Microscopic Anatomy | |
| BIOL 432 | Immunology | |
| BIOL 433 | Pathogenic Microbiology | |
| BIOL 444 | Genomics | |
| BIOL 447 | Virology | |
| BIOL 456 | Computer Skills for Biologists | |
| BIOL 460 | Advanced Field Botany | |
| BIOL 461 | Neurobiology | |
| BIOL 474 | Developmental Biology | |
| BIOL 478 | Animal Behavior | |
| BIOL 482 | Protein Structure and Function | |
| BIOL 483 | Mammalogy | |
| BIOL 485 | Prokaryotic Molecular Biology | |
| BIOL 487 | Cellular and Molecular Basis of Disease | |
| BIOL 489 | Herpetology | |
| CHEM 473 | Intermediate Organic Chemistry | |
| ENT 411 | Veterinary & Medical Entomology | |
| ENT 438 | Pesticides in the Environment | |
| ENT 441 | Insect Ecology | |
| ENT 469 | Introduction to Forest Insects | |
| ENT 476 | Medical Parasitology | |
| MATH 437 | Mathematical Biology | |
| PLSC 440 | Advanced Laboratory Techniques | |
| PLSC 476 | Cell Biology | |
| PLSC 488 | Genetic Engineering | |
| WLF 440 | Conservation Biology | |
| WLF 448 | Fish and Wildlife Population Ecology | |
| WLF 482 | Ornithology | |

Total Hours 79-96

Biology B.A. Students must also complete:

| Code | Title | Hours |
|--|-------|-------------|
| Two humanities courses in addition to the minimum university-wide general education requirements ¹ | | 6 |
| One Social Science course in addition to the minimum university-wide general education requirements ¹ | | 3 |
| 0-16 credits in a foreign language ² | | 0-16 |
| Total Hours | | 9-25 |

¹

Courses satisfying the humanities requirement are those dealing with the arts, literature, and philosophy. Courses satisfying the social science requirement are those courses dealing with a person's social condition including social relations, institutions, history, and participation in an organized community. Refer to online degree audit system through Web registration system or your academic advisor for a listing of appropriate courses.

2

Foreign Languages 0-16 credits (zero-four courses) competence in one foreign language equivalent to that gained by the completion of four semesters of college courses through the intermediate level. This requirement may be satisfied by the completion of either of the following options

- 16 credits or four high-school units in one foreign language, or
- 12 credits in one foreign language, and one three-credit course in literature translated from the same language. The 12 credits may be satisfied by three high-school units in one foreign language.

Courses to total 120 credits for this degree

Biology (B.A.) Four-Year Plan

| | Hours |
|---|-----------|
| Fall Term 1 | |
| BIOL 101 Opportunities in Biological Sciences | 1 |
| BIOL 114 Organisms and Environments | 4 |
| CHEM 111 General Chemistry I | 3 |
| CHEM 111L General Chemistry I Laboratory | 1 |
| MATH 170 Calculus I | 4 |
| ENGL 101 Writing and Rhetoric I | 3 |
| Hours | 16 |
| Spring Term 1 | |
| BIOL 115 Cells and the Evolution of Life | 3 |
| BIOL 115L Cells and the Evolution of Life Laboratory | 1 |
| CHEM 112 General Chemistry II | 4 |
| CHEM 112L General Chemistry II Laboratory | 1 |
| ENGL 102 Writing and Rhetoric II | 3 |
| STAT 251 OR STAT 301 | 3 |
| Hours | 15 |
| Fall Term 2 | |
| BIOL 310 Genetics | 3 |
| BIOL 315 Genetics Lab | 1 |
| CHEM 277 Organic Chemistry I | 3 |
| CHEM 278 Organic Chemistry I: Lab | 1 |
| (PHYS 111 AND PHYS 111L) OR (PHYS 211 AND PHYS 211L) | 4 |
| B.A Course Requirement | 3 |
| Hours | 15 |
| Spring Term 2 | |
| BIOL 213 Structure and Function Across the Tree of Life | 4 |
| BIOL 314 Ecology and Population Biology | 4 |
| (PHYS 112 AND PHYS 112L) OR (PHYS 212 AND PHYS 212L) | 4 |
| BA Course Requirement | 3 |
| Hours | 15 |
| Fall Term 3 | |
| BIOL 300 OR BIOL 380 | 3 |
| ENGL 207 OR ENGL 208 OR ENGL 317 OR ENGL 318 | 3 |
| Major Elective Course | 3 |
| Humanistic and Artistic Ways of Knowing Course | 3 |
| Oral Communications Course | 3 |
| Hours | 15 |
| Spring Term 3 | |
| BIOL 312 Molecular and Cellular Biology | 3 |
| BIOL 313 Molecular and Cellular Laboratory | 1 |
| Major Elective Course | 4 |
| Social and Behavioral Ways of Knowing Course | 3 |
| Humanistic and Artistic Ways of Knowing Course | 3 |
| Hours | 14 |
| Fall Term 4 | |
| Major Elective Course | 3 |
| Major Elective Course | 3 |

| | |
|---|------------|
| B.A. Course Requirement | 3 |
| American Diversity Course | 3 |
| Social and Behavioral Ways of Knowing Course | 3 |
| Hours | 15 |
| Spring Term 4 | |
| BIOL 400 Seminar | 1 |
| BIOL 421 Advanced Evolution/Population Dynamics | 3 |
| International Course | 3 |
| B.A. Course Requirement | 3 |
| BIOL 401 OR BIOL 407 OR BIOL 408 OR BIOL 411 | 2 |
| Major Elective Course | 3 |
| Hours | 15 |
| Total Hours | 120 |

Biology (B.A.) Five-Year Plan

| | Hours |
|---|-----------|
| Fall Term 1 | |
| BIOL 101 Opportunities in Biological Sciences | 1 |
| MATH 143 College Algebra | 3 |
| ENGL 101 Writing and Rhetoric I | 3 |
| MATH 144 Analytic Trigonometry | 1 |
| Oral Communication Course | 3 |
| B.A. Course Requirement | 3 |
| Hours | 14 |
| Spring Term 1 | |
| ENGL 102 Writing and Rhetoric II | 3 |
| CHEM 111 General Chemistry I | 3 |
| CHEM 111L General Chemistry I Laboratory | 1 |
| MATH 170 Calculus I | 4 |
| B.A. Course Requirement | 3 |
| Hours | 14 |
| Fall Term 2 | |
| BIOL 114 Organisms and Environments | 4 |
| CHEM 112 General Chemistry II | 4 |
| CHEM 112L General Chemistry II Laboratory | 1 |
| B.A. Course Requirement | 3 |
| Hours | 12 |
| Spring Term 2 | |
| BIOL 115L Cells and the Evolution of Life Laboratory | 1 |
| BIOL 115 Cells and the Evolution of Life | 3 |
| B.A. Course Requirement | 3 |
| STAT 251 OR STAT 301 | 3 |
| Hours | 10 |
| Fall Term 3 | |
| CHEM 277 Organic Chemistry I | 3 |
| CHEM 278 Organic Chemistry I: Lab | 1 |
| BIOL 310 Genetics | 3 |
| BIOL 315 Genetics Lab | 1 |
| (PHYS 111 AND PHYS 111L) OR (PHYS 211 AND PHYS 211L) | 4 |
| Hours | 12 |
| Spring Term 3 | |
| BIOL 314 Ecology and Population Biology | 4 |
| BIOL 213 Structure and Function Across the Tree of Life | 4 |
| (PHYS 112 AND PHYS 112L) OR (PHYS 212 AND PHYS 212L) | 4 |
| Hours | 12 |
| Fall Term 4 | |
| Humanistic and Artistic Ways of Knowing Course | 3 |
| B.A. Course Requirement | 3 |
| BIOL 300 OR BIOL 380 | 3 |
| ENGL 207 OR ENGL 208 OR ENGL 317 OR ENGL 318 | 3 |
| Hours | 12 |

Spring Term 4

| | | |
|--|-----------------------------------|-----------|
| BIOL 312 | Molecular and Cellular Biology | 3 |
| BIOL 313 | Molecular and Cellular Laboratory | 1 |
| American Diversity Course | | 3 |
| Social and Behavioral Ways of Knowing Course | | 3 |
| B.A. Course Requirement | | 3 |
| Hours | | 13 |

Fall Term 5

| | | |
|--|--|-----------|
| Major Elective Course | | 3 |
| Major Elective Course | | 3 |
| Social and Behavioral Ways of Knowing Course | | 3 |
| B.A. Course Requirement | | 3 |
| Hours | | 12 |

Spring Term 5

| | | |
|--|--|------------|
| BIOL 400 | Seminar | 1 |
| BIOL 421 | Advanced Evolution/Population Dynamics | 3 |
| Major Elective Course | | 3 |
| International Course | | 3 |
| BIOL 401 OR BIOL 407 OR BIOL 408 OR BIOL 411 OR BIOL 425 | | 2 |
| Hours | | 12 |
| Total Hours | | 123 |

Biology (B.S.) Four-Year Plan

| Fall Term 1 | | Hours |
|--------------------|--------------------------------------|--------------|
| BIOL 101 | Opportunities in Biological Sciences | 1 |
| BIOL 114 | Organisms and Environments | 4 |
| CHEM 111 | General Chemistry I | 3 |
| CHEM 111L | General Chemistry I Laboratory | 1 |
| ENGL 101 | Writing and Rhetoric I | 3 |
| MATH 170 | Calculus I | 4 |
| Hours | | 16 |

Spring Term 1

| | | |
|----------------------|--|-----------|
| BIOL 115 | Cells and the Evolution of Life | 3 |
| BIOL 115L | Cells and the Evolution of Life Laboratory | 1 |
| CHEM 112 | General Chemistry II | 4 |
| CHEM 112L | General Chemistry II Laboratory | 1 |
| ENGL 102 | Writing and Rhetoric II | 3 |
| STAT 251 OR STAT 301 | | 3 |
| Hours | | 15 |

Fall Term 2

| | | |
|--|--------------------------|-----------|
| BIOL 310 | Genetics | 3 |
| BIOL 315 | Genetics Lab | 1 |
| CHEM 277 | Organic Chemistry I | 3 |
| CHEM 278 | Organic Chemistry I: Lab | 1 |
| Humanistic and Artistic Ways of Knowing Course | | 3 |
| (PHYS 111 AND PHYS 111L) OR (PHYS 211 AND PHYS 211L) | | 4 |
| Hours | | 15 |

Spring Term 2

| | | |
|--|--|-----------|
| BIOL 213 | Structure and Function Across the Tree of Life | 4 |
| BIOL 314 | Ecology and Population Biology | 4 |
| Social and Behavioral Ways of Knowing Course | | 3 |
| (PHYS 112 AND PHYS 112L) OR (PHYS 212 AND PHYS 212L) | | 4 |
| Hours | | 15 |

Fall Term 3

| | | |
|--|--|-----------|
| American Diversity Course | | 3 |
| Humanistic and Artistic Ways of Knowing Course | | 3 |
| Major Elective Course | | 3 |
| BIOL 300 OR BIOL 380 | | 3 |
| ENGL 207 OR ENGL 208 OR ENGL 317 OR ENGL 318 | | 3 |
| Hours | | 15 |

Spring Term 3

| | | |
|--|-----------------------------------|-----------|
| BIOL 312 | Molecular and Cellular Biology | 3 |
| BIOL 313 | Molecular and Cellular Laboratory | 1 |
| Social and Behavioral Ways of Knowing Course | | 3 |
| Major Elective Course | | 3 |
| Oral Communication Course | | 3 |
| Hours | | 13 |

Fall Term 4

| | | |
|-----------------------|--|-----------|
| Major Elective Course | | 3 |
| Major Elective Course | | 3 |
| International Course | | 3 |
| Elective Course | | 3 |
| Elective Course | | 3 |
| Hours | | 15 |

Spring Term 4

| | | |
|--|--|------------|
| BIOL 400 | Seminar | 1 |
| BIOL 421 | Advanced Evolution/Population Dynamics | 3 |
| Major Elective Course | | 4 |
| Elective Course | | 3 |
| Elective Course | | 3 |
| BIOL 401 OR BIOL 407 OR BIOL 408 OR BIOL 411 OR BIOL 425 | | 2 |
| Hours | | 16 |
| Total Hours | | 120 |

Biology (B.S.) Five-Year Plan

| Fall Term 1 | | Hours |
|--------------------|--------------------------------------|--------------|
| BIOL 101 | Opportunities in Biological Sciences | 1 |
| BIOL 114 | Organisms and Environments | 4 |
| MATH 143 | College Algebra | 3 |
| ENGL 101 | Writing and Rhetoric I | 3 |
| MATH 144 | Analytic Trigonometry | 1 |
| Hours | | 12 |

Spring Term 1

| | | |
|----------------------------|--------------------------------|-----------|
| ENGL 102 | Writing and Rhetoric II | 3 |
| CHEM 111 | General Chemistry I | 3 |
| CHEM 111L | General Chemistry I Laboratory | 1 |
| MATH 170 | Calculus I | 4 |
| Oral Communications Course | | 3 |
| Hours | | 14 |

Fall Term 2

| | | |
|--|--|-----------|
| CHEM 112 | General Chemistry II | 4 |
| CHEM 112L | General Chemistry II Laboratory | 1 |
| BIOL 115 | Cells and the Evolution of Life | 3 |
| BIOL 115L | Cells and the Evolution of Life Laboratory | 1 |
| Humanistic and Artistic Ways of Knowing Course | | 3 |
| Hours | | 12 |

Spring Term 2

| | | |
|--|--|-----------|
| General Education Course 2 cr. Elective Course | | 2 |
| American Diversity Course | | 3 |
| STAT 251 OR STAT 301 | | 3 |
| (PHYS 111 AND PHYS 111L) OR (PHYS 211 AND PHYS 211L) | | 4 |
| Hours | | 12 |

Fall Term 3

| | | |
|--|--------------------------|-----------|
| CHEM 277 | Organic Chemistry I | 3 |
| CHEM 278 | Organic Chemistry I: Lab | 1 |
| BIOL 310 | Genetics | 3 |
| BIOL 315 | Genetics Lab | 1 |
| Social and Behavioral Ways of Knowing Course | | 3 |
| Elective Course | | 1 |
| Hours | | 12 |

| | | |
|--|--|------------|
| Spring Term 3 | | |
| BIOL 314 | Ecology and Population Biology | 4 |
| BIOL 213 | Structure and Function Across the Tree of Life | 4 |
| (PHYS 112 AND PHYS 112L) OR (PHYS 212 AND PHYS 212L) | | 4 |
| Hours | | 12 |
| Fall Term 4 | | |
| Major Elective Course | | 3 |
| Humanistic and Artistic Ways of Knowing Course | | 3 |
| BIOL 300 OR BIOL 380 | | 3 |
| ENGL 207 OR ENGL 208 OR ENGL 317 OR ENGL 318 | | 3 |
| Hours | | 12 |
| Spring Term 4 | | |
| BIOL 312 | Molecular and Cellular Biology | 3 |
| BIOL 313 | Molecular and Cellular Laboratory | 1 |
| Major Elective Course | | 3 |
| Major Elective Course | | 3 |
| Social and Behavioral Ways of Knowing Course | | 3 |
| Hours | | 13 |
| Fall Term 5 | | |
| International Course | | 3 |
| Major Elective Course | | 3 |
| Major Elective Course | | 3 |
| B.S. Course Requirement | | 3 |
| Hours | | 12 |
| Spring Term 5 | | |
| BIOL 400 | Seminar | 1 |
| BIOL 421 | Advanced Evolution/Population Dynamics | 3 |
| Major Elective Course | | 3 |
| B.S. Course Requirement | | 3 |
| BIOL 401 OR BIOL 407 OR BIOL 408 OR BIOL 411 OR BIOL 425 | | 2 |
| Hours | | 12 |
| Total Hours | | 123 |

The degree map is a guide for the timely completion of your curricular requirements. Your academic advisor or department may be contacted for assistance in interpreting this map. This map is not reflective of your academic history or transcript and it is not official notification of completion of degree or certificate requirements. Please contact the Registrar's Office regarding your official degree/certificate completion status.

1. Learn and integrate: Through independent learning and collaborative study, students will attain, use, and develop knowledge in biology, chemistry, and related disciplines with specialization in biology. Students will be able to integrate biological and chemical information to understand living systems from the molecular to ecosystem level.
2. Think and create: Students will be able to use multiple thinking strategies to examine issues in biology, including the proposal of biological hypotheses and the design and analysis of biological experiments capable of testing hypotheses. Students will be able to apply biological knowledge to real world challenges, such as those that may be encountered in applied areas.
3. Communicate: Students will be able to acquire and analyze biological information from the scientific literature. Students will be able to communicate biological information via verbal, written, and other non-verbal methods such as appropriate graphics.
4. Clarify purpose and perspective: The program will allow students to explore biology in the context of their career and life's purpose as well as to apply perspectives to novel issues or problems within biology or other disciplines.

5. Practice citizenship: Students will understand and accept their roles as educated biologists and scientists in society. Students will be able to communicate with others, including non-scientists, from the special perspective of an educated biologist.