BIOLOGY, B.S.

Through Saint Louis University’s biology major, students gain a better understanding of living organisms and how they interact with the environment. Biological research seeks to answer a broad range of questions, from factors that affect human health to ecological issues.

Saint Louis University’s biology program offers courses that emphasize concepts over facts and aim to provide a foundation for careers in the life sciences, health professions, K-12 education and advanced postgraduate study in various disciplines. Five B.S. degree concentrations allow students to focus on specific disciplinary areas. SLU also offers a B.A. in Biology (https://www.slu.edu/arts-and-sciences/academics/degrees/undergraduate/biology-ba.php).

- The program is enriched by interactions with the School of Medicine, Missouri Botanical Garden, Donald Danforth Plant Science Center, Saint Louis Zoo and many St. Louis-based life science companies. Research experiences and internships provide students with opportunities to study biology beyond the classroom.
- SLU’s Department of Biology (https://www.slu.edu/arts-and-sciences/biology/) has a field station (https://www.slu.edu/arts-and-sciences/biology/reis-biological-station/) that provides unique opportunities for students to explore ecology, conservation and environmental science in an Ozark forest ecosystem. The field station offers students opportunities to take a summer class, conduct undergraduate research and participate in a semester-long program of field biology coursework.
- Students are encouraged to participate in co-curricular activities. Groups such as Beta Beta Beta, the biology honorary society, and Alpha Epsilon Delta, the pre-professional honor society, are social and academic organizations that further students’ interest in biology while exposing them to its relationship with other scientific disciplines.

Curriculum Overview

The undergraduate curriculum in the Department of Biology is diverse and will meet a variety of interests in the rapidly expanding fields of the biological sciences. It is also designed to provide an intensive educational experience for students in other disciplines who are interested in biology. In addition to courses offered in Macelwane Hall, the department offers courses at the University’s Reis Biological Station (https://www.slu.edu/arts-and-sciences/biology/reis-biological-station/), located by the Huzzah Creek in the Ozarks.

B.S. students may choose one of five concentrations:

**Biological Science**

This concentration provides students with a strong foundation in biology and prepares students for entry-level employment in the life sciences, health professions, K-12 education and graduate school.

**Biological Chemistry and Molecular Biology**

This concentration focuses on the latest advances in biochemistry, genomics, molecular and cell biology. It is designed for students interested in careers involving biomedical research or biotechnology.

**Cell Biology and Physiology**

This concentration provides students with a strong foundation in the structure and function of organ systems and the tissues that comprise them. It is a good choice for students planning careers in medicine, pharmacology or health care.

**Ecology, Evolution and Conservation**

This concentration is designed for students interested in various aspects of organismal biology. It is a good choice for students preparing for graduate study or planning a career as a research biologist or wildlife specialist.

**Plant Science**

This concentration is designed for students interested in various aspects of plant biology. It prepares students for careers in agricultural industries, botanical research institutes or advanced training in graduate degree programs.

**Fieldwork and Research Opportunities**

The benefits of SLU’s biology program include several internship and career opportunities. Advanced undergraduate students with good academic records are encouraged to apply for teaching or learning assistant positions. In addition to a stipend, students gain teaching experience and the opportunity to help others become interested in biology.

Biology majors can enroll in courses that provide credit for structured internships through collaborations with various local organizations, including the Missouri Botanical Garden, Saint Louis Zoo, Sigma Aldrich, Monsanto and firms in the growing biotechnology field.

**Careers**

The biology major develops strong critical thinking and problem-solving skills that provide excellent preparation for professional schools, such as:

- Medical school
- Veterinary science school
- Dental school
- Optometry school
- Graduate school in a broad range of disciplines

The skills biology majors gain also open the door to a wide variety of career options in health care, biotechnology, environmental management, conservation, education and the pharmaceutical industry.

Recent biology majors have been awarded grants from Sigma Xi and the National Science Foundation and prestigious fellowships from the NSF, Fulbright Scholar Program, Mayo Clinic, Smithsonian Institution, NeuroSURF and the American Society for Microbiology.

**Admission Requirements**

**Begin Your Application** (http://www.slu.edu/apply.php)

Saint Louis University also accepts the Common Application.

**Freshman**

All applications are thoroughly reviewed with the highest degree of individual care and consideration to all credentials that are submitted. Solid academic performance in college preparatory coursework is a primary concern in reviewing a freshman applicant’s file.

To be considered for admission to any Saint Louis University undergraduate program, applicants must be graduating from an
accredited high school, have an acceptable HiSET exam score or take the General Education Development (GED) test.

**Transfer**

Applicants must be a graduate of an accredited high school or have an acceptable score on the GED.

Students who have attempted fewer than 24 semester credits (or 30 quarter credits) of college credit must follow the above freshmen admission requirements. Students who have completed 24 or more semester credits (or 30 quarter credits) of college credit must submit transcripts from all previously attended college(s).

In reviewing a transfer applicant’s file, the Office of Admission holistically examines the student’s academic performance in college-level coursework as an indicator of the student’s ability to meet the academic rigors of Saint Louis University. Where applicable, transfer students will be evaluated on any courses outlined in the continuation standards of their preferred major.

**International Applicants**

All admission policies and requirements for domestic students apply to international students along with the following:

- Demonstrate English Language Proficiency ([https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/](https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/))
- Proof of financial support must include:
  - A letter of financial support from the person(s) or sponsoring agency funding the time at Saint Louis University
  - A letter from the sponsor's bank verifying that the funds are available and will be so for the duration of study at the University
- Academic records, in English translation, of students who have undertaken postsecondary studies outside the United States must include the courses taken and/or lectures attended, practical laboratory work, the maximum and minimum grades attainable, the grades earned or the results of all end-of-term examinations, and any honors or degrees received. WES and ECE transcripts are accepted.
- **Scholarships:** Scholarships are awarded based on academic achievement, service, leadership and financial need.
- **Financial Aid:** Financial aid is provided through grants and loans, some of which require repayment.

Saint Louis University makes every effort to keep our education affordable. In fiscal year 2022, 99% of first-time freshmen and 90% of all students received financial aid ([https://www.slu.edu/financial-aid/](https://www.slu.edu/financial-aid/)) and students received more than $445 million in aid University-wide.

For priority consideration for merit-based scholarships, apply for admission by December 1 and complete a Free Application for Federal Student Aid (FAFSA) by March 1.

For information on other scholarships and financial aid, visit [www.slu.edu/financial-aid](https://www.slu.edu/financial-aid).

**Learning Outcomes**

1. Graduates will be able to effectively apply core biological concepts to solve problems.
2. Graduates will be able to critically evaluate scientific information from multiple sources, including that from the primary literature.
3. Graduates will be able to apply biological principles to global societal issues.
4. Graduates will be able to draw valid conclusions from quantitative data.
5. Graduates will be able to formulate hypotheses that address research questions.
6. Graduates will be able to correctly perform common laboratory and/or field techniques.
7. Graduates will be able to effectively apply the scientific method to test hypotheses.

**Requirements**

Biology students must complete a minimum total of 74 credits for the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<td>BIOL</td>
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<td>BIOL</td>
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<tr>
<td>1240</td>
<td>General Biology: Information Flow and Evolution</td>
<td>4</td>
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<tr>
<td>&amp;</td>
<td>and Principles of Biology I Laboratory</td>
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<tr>
<td>BIOL</td>
<td>General Biology: Transformations of Energy and</td>
<td>4</td>
</tr>
<tr>
<td>1260</td>
<td>Matter and Principles of Biology II Laboratory</td>
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<tr>
<td>&amp;</td>
<td>Evolutionary Biology</td>
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<tr>
<td>BIOS</td>
<td>Biochemistry and Molecular Biology</td>
<td>3</td>
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<tr>
<td>3020</td>
<td>Principles of Genetics</td>
<td>3</td>
</tr>
<tr>
<td>3030</td>
<td>General Chemistry 1</td>
<td>4</td>
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<tr>
<td>CHEM</td>
<td>and General Chemistry 1 Laboratory</td>
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<tr>
<td>1110</td>
<td>General Chemistry 2</td>
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<td>&amp;</td>
<td>and General Chemistry 2 Laboratory</td>
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<tr>
<td>CHEM</td>
<td>Calculus I</td>
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<tr>
<td>1120</td>
<td>Elementary Statistics with Computers</td>
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<td>or</td>
<td>Biometry</td>
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<td>BIOL</td>
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**Statistics Course**

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[315x372] Graduates will be able to test hypotheses.
**Additional Science Lab Courses**

Complete four of the following seven combinations:

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Organic Chemistry 1 and Organic Chemistry 1 Laboratory</td>
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<tr>
<td>CHEM 2420 &amp; CHEM 2425</td>
<td>Organic Chemistry 2 and Organic Chemistry 2 Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS 1310 &amp; PHYS 1320</td>
<td>Physics I and Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS 1330 &amp; PHYS 1340</td>
<td>Physics II and Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>EAS 1420 &amp; EAS 1425</td>
<td>Introduction to Atmospheric Science and Introduction to Atmospheric Science Lab</td>
<td></td>
</tr>
<tr>
<td>EAS 1430 &amp; EAS 1435</td>
<td>Introduction to the Solid Earth and Introduction to the Solid Earth Lab</td>
<td></td>
</tr>
<tr>
<td>EAS 1450 &amp; EAS 1455</td>
<td>Introduction to Oceanography and Intro to Oceanography Lab</td>
<td></td>
</tr>
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</table>

**Concentrations**

Select one of the following Concentrations:

- Biological Chemistry and Molecular Biology (p. 3)
- Biological Sciences (p. 3)
- Cell Biology & Physiology (p. 3)
- Ecology, Evolution & Conservation (p. 4)
- Plant Science (p. 4)

**Senior Inquiry**

Select one of the following:

- BIOL 4910 Internship in Conservation
- BIOL 4911 Integrated Bioinformatics Internship
- BIOL 4912 Internship in Plant Science
- BIOL 4970 Library Project
- BIOL 4980 Advanced Independent Study
- BIOL 5xxx BIOL 5000-level elective

**General Electives**

35-39

**Total Credits**

120

**Biological Chemistry and Molecular Biology Concentration**

**Code** | **Title** | **Credits**
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**Required Course**

<table>
<thead>
<tr>
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<td>Cell Structure &amp; Function</td>
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</table>

Select two courses with a ‘Biological Chemistry/Molecular Biology Elective’ attribute.

**Select two courses with a ‘Biological Chemistry/Molecular Biology Lab’ attribute.**

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<td>Advanced Biological Chemistry</td>
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<tr>
<td>BIOL 4030</td>
<td>Introduction to Genomics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4430</td>
<td>Principles of Virology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4520</td>
<td>Biochemical Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4650</td>
<td>General Microbiology Laboratory</td>
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</tr>
<tr>
<td>BIOL 4720</td>
<td>Cancer Biology</td>
<td>3</td>
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</tbody>
</table>

**Code** | **Title** | **Credits**
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‘Biological Chemistry/Molecular Biology Elective’ Attribute

<table>
<thead>
<tr>
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<tbody>
<tr>
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</table>

**Code** | **Title** | **Credits**
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‘Biological Chemistry/Molecular Biology Lab’ Attribute

<table>
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<tr>
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<th>Title</th>
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<tr>
<td>BIOL 3060</td>
<td>Cell Structure &amp; Function Laboratory</td>
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<tr>
<td>BIOL 3100</td>
<td>Experiments in Genetics Lab</td>
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<tr>
<td>BIOL 4050</td>
<td>Molecular Technique Lab</td>
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<tr>
<td>BIOL 4160</td>
<td>Microbial Ecology and Molecular Evolution</td>
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<td>BIOL 4650</td>
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**Total Credits**

26

**Biological Sciences Concentration**

**Code** | **Title** | **Credits**
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**Required Course**

<table>
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<tr>
<td>BIOL 3040</td>
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**Cellular, Molecular & Developmental Biology Elective with Lab**

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<tbody>
<tr>
<td>BIOL 3060</td>
<td>Cell Structure &amp; Function Laboratory</td>
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<tr>
<td>BIOL 4030</td>
<td>Introduction to Genomics</td>
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<tr>
<td>BIOL 4430</td>
<td>Principles of Virology</td>
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</table>

**Code** | **Title** | **Credits**
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**Ecology, Evolutionary and Organismal Biology Elective with Lab**

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<tbody>
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<td>Cell Structure &amp; Function</td>
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<td>BIOL 4520</td>
<td>Biochemical Pharmacology</td>
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<tr>
<td>BIOL 4650</td>
<td>General Microbiology Laboratory</td>
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</table>

**Additional Cellular, Molecular & Developmental Biology or Ecology, Evolutionary and Organismal Biology Lab or BIOL 4790**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 3040</td>
<td>Cell Structure &amp; Function</td>
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<tr>
<td>BIOL 4070</td>
<td>Advanced Biological Chemistry</td>
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<td>Introduction to Genomics</td>
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**Total Credits**

26

**Cell Biology and Physiology Concentration**

**Code** | **Title** | **Credits**
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**Required Courses**

<table>
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<td>BIOL 3040</td>
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<td>BIOL 4520</td>
<td>Biochemical Pharmacology</td>
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</tr>
<tr>
<td>BIOL 4650</td>
<td>General Microbiology Laboratory</td>
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**Laboratory Requirement**

All B.S. students must either:

1. Complete at least three structured laboratory experiences with at least one from the cellular, molecular and developmental biology category and one from the ecology, evolutionary and organismal biology category of courses (see below).

   OR

2. Complete four structured laboratory experiences without regard to category type.

In addition, B.S. students must complete at least one plant science course and one of several senior inquiry options.

**Independent Research**

A total of 4 credits of BIOL 4960 Independent Research, BIOL 4970 Library Project, and/or BIOL 4980 Advanced Independent Study can be counted toward the B.S. degree. These courses do not count as structured lab courses.
Select one course with a 'Cell Biology-Related Lab' attribute 1-4
Select one course with a 'Physiology-Related Lab' attribute 1-5
Ecology, Evolutionary and Organismal Biology Elective with Lab (p. 5) 4-5
Select two courses with a 'Cell Biology & Physiology Elective' attribute 6-9

Ecology, Evolutionary and Conservation Concentration

Select one course with an 'Ecology Elective' attribute. 3-5
Cellular, Molecular & Developmental Biology Elective with Lab 4-5
Select one course with an 'Evolution Elective' attribute. 3-5
Select one course with an 'Organismal Elective' attribute. 3-5
Select one course with a 'Tools Elective' attribute 2-4
Ecology, Evolutionary and Organismal Biology Elective with Lab (p. 5) 4-5
Plant Elective (p. 5) 3-5
Biography Elective Courses (a minimum of 26 credits is required for the concentration) 0-5

Total Credits 26-34

<table>
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<tr>
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<tr>
<td>BIOL 3400X</td>
<td>Introduction to Neuroscience 1: Cellular, Molecular and Systemic</td>
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<td>BIOL 3420</td>
<td>Comparative Anatomy of the Vertebrates</td>
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<td>BIOL 4160</td>
<td>Microbial Ecology and Molecular Evolution</td>
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<td>BIOL 4250</td>
<td>Neurobiology of Disease</td>
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<td>BIOL 4410</td>
<td>Comparative Animal Physiology</td>
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<td>Principles of Virology</td>
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<td>Vertebrate Histology: Structure and Function of Tissues</td>
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<td>BIOL 4460</td>
<td>Exercise Physiology</td>
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<td>BIOL 4510</td>
<td>Behavioral Endocrinology</td>
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<td>Developmental Biology</td>
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<td>BIOL 4630</td>
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<td>BIOL 4640</td>
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Total Credits 26-37

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<tr>
<td>BIOL 3260</td>
<td>Biology of Plants &amp; Fungi</td>
<td>4</td>
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<td>BIOL 3450</td>
<td>Economic Botany</td>
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<td>BIOL 4100</td>
<td>Natural History of Vertebrates</td>
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<td>BIOL 4130</td>
<td>Field Mammalogy</td>
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<td>BIOL 4140</td>
<td>Field Ornithology</td>
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<td>BIOL 4240</td>
<td>General and Medical Entomology</td>
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<td>BIOL 4260</td>
<td>Biology of Amphibians and Reptiles</td>
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<td>BIOL 4280</td>
<td>Biology of Fishes</td>
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<tr>
<td>BIOL 4330</td>
<td>Spring Flora of the Ozarks</td>
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<td>BIOL 4410</td>
<td>Comparative Animal Physiology</td>
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<td>BIOL 4640</td>
<td>General Microbiology</td>
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Total Credits 26-37

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<td>BIOL 4200</td>
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<td>Animal Behavior</td>
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<td>Biology of Plants &amp; Fungi</td>
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Plant Science Concentration

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<td>BIOL 4090</td>
<td>Plant Ecology with Lab</td>
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Additional Cellular, Molecular & Developmental Biology or Ecology, Evolutionary and Organismal Biology Lab or BIOL 4790

Biology Elective Courses (a minimum of 26 credits is required for the concentration)

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<td>BIOL 3100</td>
<td>Experiments in Genetics Lab</td>
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<td>Comparative Anatomy of the Vertebrates</td>
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<td>BIOL 3470</td>
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<td>BIOL 4050</td>
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<td>Microbial Ecology and Molecular Evolution</td>
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<td>Comparative Animal Physiology</td>
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<td>Vertebrate Histology: Structure and Function of Tissues</td>
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<td>BIOL 4640</td>
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Total Credits: 26

**Program Notes:**

Ecology, Evolutionary and Organismal Biology Elective with Lab

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<td>Biology of Plants &amp; Fungi</td>
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<td>Forest Park Living Lab Field Ecology Techniques</td>
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<td>BIOL 4160</td>
<td>Microbial Ecology and Molecular Evolution</td>
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<td>Aquatic Ecology</td>
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<td>Biology of Amphibians and Reptiles (with Lab)</td>
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<td>Biology of Fishes</td>
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<td>BIOL 4320</td>
<td>Cave Biology</td>
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<td>BIOL 4330</td>
<td>Spring Flora of the Ozarks</td>
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Plant Elective*

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<tr>
<td>BIOL 4330</td>
<td>Spring Flora of the Ozarks</td>
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<tr>
<td>BIOL 4120</td>
<td>Field Botany</td>
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* Plant electives with labs may also fulfill the Ecology, Evolutionary, and Organismal Biology elective requirement or Cell, Molecular, and Developmental Biology elective requirement.

**Non-Course Requirements**

All biology majors are required to participate in first- and second-year mentoring sessions and meet with their mentor when in residence.

**Continuation Standards**

Students must have a minimum of a 2.00 GPA in their major courses (BIOL) and required related credits (chemistry, mathematics and statistics, physics, etc.) by the conclusion of their freshman year. Students who fall below a 2.00 GPA will be placed on probation. If a student fails to obtain at least a 2.00 GPA in their major courses (BIOL) and required related credits by the conclusion of their sophomore year they will not be allowed to continue in the program.

**Graduation Requirements**

- Complete a minimum of 120 credits (excluding pre-college level courses numbered below 1000).
- Complete the University Undergraduate Core curriculum requirements.
- Complete major requirements: minimum of 30 credits required.
- Complete remaining credits with a second major, minor, certificate and/or electives to reach the minimum of 120 credits required for graduation.
- Achieve at least a 2.00 cumulative grade point average, a 2.00 grade point average in the major(s), and a 2.00 grade point average in the minor/certificate, or related elective credits.
- Complete department/program-specific academic and performance requirements.
- Complete at least 50% of the coursework for the major and 75% for the minor/certificate through Saint Louis University or an approved study abroad program.
- Complete 30 of the final 36 credits through Saint Louis University or an approved study abroad program.
- Complete an online degree application by the required University deadline.

**Roadmap**

**Biological Chemistry and Molecular Biology**

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<th>Credits</th>
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<td>BIOL 1240 &amp; BIOL 1245 General Biology: Information Flow and Evolution and Principles of Biology I Laboratory (BIOL 1240 satisfies CORE 3800)</td>
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<td>CHEM 1110 &amp; CHEM 1115 General Chemistry 1 and General Chemistry 1 Laboratory</td>
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<td>Course</td>
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<td>CORE 1000</td>
<td>Ignite First Year Seminar (Must be taken in first 36 credit hours at SLU / Cannot carry attributes)</td>
<td>2-3</td>
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<tr>
<td>CORE 1500</td>
<td>Cura Personalis 1: Self in Community (Must be taken in first 36 credit hours at SLU / Cannot carry attributes / Must be taken at SLU)</td>
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<td>CORE 1900</td>
<td>Eloquenta Perfecta 1: Written and Visual Communication (Should be taken in first 36 credit hours at SLU / Cannot carry attributes)</td>
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<td>BIOL 1260 &amp; BIOL 1265</td>
<td>General Biology: Transformations of Energy and Matter and Principles of Biology II Laboratory</td>
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<td>CHEM 1120 &amp; CHEM 1125</td>
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<td>BIOL 3010</td>
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### Biological Sciences

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**Credits:** 15

### Year Two

#### Fall

- Participation in Second-year Mentoring
- BIOL 3020 Biochemistry and Molecular Biology
- CHEM, EAS, or PHYS course w/lab
- CORE 1200 Eloquentia Perfecta 2: Oral and Visual Communication
- CORE 2500 Cura Personalis 2: Self in Contemplation
- General Electives

**Credits:** 15

#### Spring

- BIOL 3040 Cell Structure & Function
- CHEM, EAS, or PHYS course w/lab
- Statistics
- CORE 2800 Eloquentia Perfecta 3: Creative Expression
- General Electives

**Credits:** 15

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**Cell Biology & Physiology**

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<td>General Chemistry 1 and General Chemistry 1 Laboratory</td>
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<td>CORE 1500</td>
<td>Cura Personalis 1: Self in Community (Must be taken in first 36 credit hours at SLU / Cannot carry attributes)</td>
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**General Electives:** 1

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<td>Evolutionary Biology</td>
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<td>BIOL 3030</td>
<td>Principles of Genetics</td>
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<td>CORE 3400</td>
<td>Ways of Thinking: Aesthetics, History, and Culture</td>
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**Credits:** 15-17

#### Spring

- Biology Elective
- Laboratory CMDB Elective
- CHEM, EAS, or PHYS course w/lab
- CORE 3600 Ways of Thinking: Social and Behavioral Sciences
- CORE 4000 Collaborative Inquiry
- General Electives

**Credits:** 16

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<tr>
<td>BIOL 1260 &amp; BIOL 1265</td>
<td>General Biology: Transformations of Energy and Matter and Principles of Biology II Laboratory</td>
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<td>CHEM 1120 &amp; CHEM 1125</td>
<td>General Chemistry 2 and General Chemistry 2 Laboratory</td>
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<tr>
<td>MATH 1510</td>
<td>Calculus I (satisfies CORE 3200)</td>
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<td>CORE 1600</td>
<td>Ultimate Questions: Theology</td>
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**Credits:** 15

#### Fall

- Participation in Second-year Mentoring
- BIOL 3020 Biochemistry and Molecular Biology
- CHEM, EAS, or PHYS course w/lab
- CORE 1200 Eloquentia Perfecta 2: Oral and Visual Communication
- CORE 2500 Cura Personalis 2: Self in Contemplation
- General Electives

**Credits:** 15

#### Spring

- BIOL 3040 Cell Structure & Function
- CHEM, EAS, or PHYS course w/lab

**Credits:** 15-19
Statistics Elective
MATH 1300 or BIOL 4790 3-4

CORE 2500 Cura Personalis 2: Self in Contemplation 0
CORE 2800 Eloquencia Perfecta 3: Creative Expression 2-3
General Electives 3

Credits 15-17

Year Three
Fall
BIOL 3010 Evolutionary Biology 3
Course with 'Cell Biology/Physiology Elective' attribute 3
BIOL 4540 Human Systemic Physiology 3
CHEM, EAS, or PHYS course w/lab 4
CORE 3400 Ways of Thinking: Aesthetics, History, and Culture 3

Credits 16

Spring
BIOL 3030 Principles of Genetics 3
Course with 'Cell-Related' attribute 1
Course with 'Physiology-Related Lab' attribute 2-5
CHEM, EAS, or PHYS course w/lab 4
CORE 4000 Collaborative Inquiry 2-3

Credits 15-19

Year Four
Fall
Course with 'Cell Biology/Physiology Elective' attribute 3
BIOL Elective 3
Plant Elective 3
CORE 3500 Cura Personalis 3: Self in the World 1
General Electives 5

Credits 15

Spring
Laboratory EEOB Elective 4-5
Laboratory CMDB or EEOB Elective 1-5
Senior Inquiry 1-3
General Electives 9-2

Credits 15

Total Credits 121-128

Ecology, Evolution & Conservation

Course Year One
Fall
BIOL 1240 General Biology: Information Flow and Evolution 4
& BIOL 1245 (BIOL 1240 satisfies CORE 3800)
CHEM 1110 General Chemistry 1 4
& CHEM 1115 and General Chemistry 1 Laboratory
CORE 1000 Ignite First Year Seminar (Must be taken in first 36 credit hours at SLU / Cannot carry attributes) 2-3

Credits 17

Year Three
Fall
BIOL 3010 Evolutionary Biology 3
BIOL 3030 Principles of Genetics 3
BIOL 4750 General Ecology & BIOL 4760 and General Ecology Laboratory 4
CHEM, EAS, or PHYS course w/lab 4
CORE 3400 Ways of Thinking: Aesthetics, History, and Culture 3

Credits 17

Spring
Course with a 'Evolution Elective' attribute 3-4
Course with a 'Organismal Elective' attribute 3-4
Laboratory CMDB Elective 1-2
CHEM, EAS, or PHYS course w/lab 4
### Plant Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td><strong>Fall</strong></td>
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<tr>
<td>BIOL 1240</td>
<td>General Biology: Information Flow and Evolution</td>
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<td>CHEM 1110</td>
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<td>CORE 1500</td>
<td>Cura Personalis 1: Self in Community (Must be taken in first 36 credit hours at SLU / Cannot carry attributes)</td>
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<td>Eloquentia Perfecta 1: Written and Visual Communication (Should be taken in first 36 credit hours at SLU / Cannot carry attributes)</td>
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<td>Participation in First-year Mentoring Events</td>
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<td>BIOL 1260</td>
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<td>Participation in Second-year Mentoring</td>
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<td>Many Plant Science concentration students chose to take BIOL 3450 as a BIOL elective</td>
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<td>BIOL Elective</td>
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<td>BIOL 3260</td>
<td>Biology of Plants &amp; Fungi</td>
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<tr>
<td>Senior Inquiry</td>
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<td>1-3</td>
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### Core Courses

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<td>CORE 3600</td>
<td>Ways of Thinking: Social and Behavioral Sciences</td>
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<td>CORE 4000</td>
<td>Collaborative Inquiry</td>
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### Year Four

| **Fall** | Course with a 'Tools Elective' attribute | 2-4 |
| Plant Elective | 3 |
| CORE 3500 | Cura Personalis 3: Self in the World | 1 |
| General Electives | 9 |
| **Credits** | | 15-17 |
| **Spring** | Course with a 'Ecology Elective' attribute | 3 |
| Laboratory CMDB or EEOB Elective | 1-5 |
| Senior Inquiry | 1-3 |
| General Electives | 7 |
| **Credits** | | 12-18 |

### Year Three

| **Fall** | BIOL Elective | Many Plant Science concentration students chose to take BIOL 3450 as a BIOL elective | 3 |
| Laboratory CMDB or EEOB Elective | 1-2 |
| CORE 3500 | Cura Personalis 3: Self in the World | 1 |
| General Electives | 7 |
| **Credits** | | 15-16 |
| **Spring** | BIOL 3260 | Biology of Plants & Fungi | 4 |
| BIOL Elective | | 3 |
| Senior Inquiry | | 1-3 |
| General Electives | | 7 |
| **Credits** | | 15-17 |
| **Total Credits** | | 120-128 |
2+SLU

2+SLU programs are formal transfer agreements for students seeking an associate degree at a partner institution.

- Biology, B.S. (STLCC 2+SLU) (https://catalog.slu.edu/academic-policies/office-admission/undergraduate/2plusslu/stlcc/biology-bs/)