Students must complete all core classes and the courses from the upper level baskets: All students must complete a minimum of 42 credits under the BIOL prefix to earn a degree.

3+1 BS MLS – Designed for transfers or incoming students entering with credits.
BS Biology with MLS Concentration – Designed for students that are not accepted into an MLS Internship.
4+1 BS Biology/MLS Double major – Complete 128 total hours to earn a Biology degree PLUS the MLS Internship

In order to graduate 128 credit hours must be completed. Last 30 credit hours must be completed in residency.

### General Education: 33 Credits

#### I. Skills/Processes for Literacy (3 courses)
- A. INTD 101 University Seminar
- B. ENGL 101 Composition: Theme Writing
- C. ENGL 104 Composition: The Essay

#### II. Humanities (5 courses)
- A. Fine Arts (1 course): Art Music, Performance
- B. Literature/Language (1 course): ENGL or Foreign Language
- C. Philosophy (1 course)
- D. Humanities Electives (2 courses)
  1. HUM 101/301 or HIST 131/331
  2. One additional elective from ENGL, The Arts/Aesthetics, Foreign Language, HUM, PHIL, REL

#### III. Social Science (3 courses)
- A. American History or Government
- B. Social Science Electives (2 courses from ECON, GEOG, HIST, PSCI, PSYC, SOC)

#### IV. Natural Science/Quantitative Reasoning (met through major)

#### V. General Education Electives (2 courses): From the College of Arts and Sciences

### Additional Course Choices (not required and not part of the baskets)

#### Timing
- ^ denotes that the course is offered every other year
- @ = 117/118
- # = 260
- & = 316
- % = 260
- ^ = 270
- $ = 270
- a = 394

#### Corequisites
- % = 260
- ^ = 270
- a = 394

#### Alternate Course Offerings

#### Fall Even Years: Conservation Biology, Comparative Vertebrate Anatomy

#### Fall Odd Years: Ecology, Zoology, Physical Chemistry 1

#### Spring Even Years: Pathophys, Ex Science, Plants and People, Immunology, Ornithology Physical Chemistry 2, Inorganic Chemistry

#### Spring Odd Years: Intro to Gross, Molecular Genetics, Botany

### Biology Core Requirements

- BIOL 117 General Biology I (4)
- BIOL 118 General Biology II (4)
- BIOL 260 General Genetics (4) @
- BIOL 270 Evolution (4) S
- BIOL 499 - MLS Internship (36) - Students must be accepted into an affiliated AND accredited program
- SCI 498 - Advanced Topics (2) S, BIOL 401 Research 1 (3) @

#### Upper Level Baskets: Required for All MLS Majors

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101 Anatomy and Physiology (4) ☐</td>
<td>BIOL 102 Anatomy and Physiology 2 (4) S ☐</td>
</tr>
<tr>
<td>BIOL 394 Advanced Physiology (3) F @ or &gt;</td>
<td>BIOL 351 Cell Biology (4) S @</td>
</tr>
<tr>
<td>BIOL 316 General Microbiology (4) # &amp;</td>
<td>BIOL 354 Immunology (3) S &amp;</td>
</tr>
<tr>
<td>CHEM 320 Biochemistry (4) F</td>
<td>One other course</td>
</tr>
</tbody>
</table>

#### Additional Courses

**Suggested choices for the 4+1 BS Biology and MLS Double Major**

**Optional choices for BS Biology with MLS Concentration**

Students may take other courses offered in the Biology or Chemistry programs rather than suggested or optional choices after discussion with advisor.

- Math, Biology and Chemistry courses must include a minimum of 84 credits.

**BIOL 390 Biotechnology (4) F #**
- CHEM 353 Quantitative Analysis (4) F
- CHEM 410 Instrumental Analysis (4) S

**BIOL 395 Pathophysiology (3) W*!** (optional but strongly recommended)
- BIOL 100 Intro to Clinical Lab Science (2) S (optional but strongly recommended)
- BIOL 391 Molecular Genetics (4) S * ^
- CHEM 321 Biochemistry II (3) S

**BIOL 101 Anatomy and Physiology (4) Ω**
- BIOL 351 Cell Biology (4) S @
- BIOL 354 Immunology (3) S &

Application to MLS Internship may occur up to one year prior to anticipated start of internship at the permission of the MLS Director

#### Non-Biology Science and Math Requirements

- MATH 151 Calculus I (4) F (recommended) OR MATH 125 College Algebra & Trigonometry (3) F/S
- CHEM 103 General Chemistry I (4)
- CHEM 104 General Chemistry II (4)
- CHEM 203 Organic Chemistry I (4)
- CHEM 204 Organic Chemistry II (4)
- MATH 141 Elementary Stats (3) F/S OR MATH 420 (3) Statistics for Sci Research OR PSYC 341 Understanding Statistical Inference
- PHYS 153 Calculus-Based Physics I (4) S (recommended) OR PHYS 103 Gen. Physics I (4) F
- PHYS 154 Calculus-Based Physics II (4) S (recommended) OR PHYS 104 Gen. Physics II (4) S

#### Popular Minors

- Chemistry Minor
- Psychology Minor
- Coaching Minor
- Computational Science Minor
- Education Minor
- Business Administration Minor
- Management Information Systems Minor