College of Science  
Department of Biological Sciences  
For students graduating in calendar year 2022  
and for student date of entry under UG Catalog 2020-2021  
Bachelor of Science in Biological Sciences  
Major: Biological Sciences  
Option: Ecology, Evolution, and Behavior (EEB)

Pathways to General Education Requirements (45 credits)

Concept 1: Discourse (9 credits = 6 foundational + 3 advanced/applied writing and/or speaking courses)

   ENGL 1105 First-Year Writing (3)   ENGL 1106 First-Year Writing (3)
   ___________ (3) Advanced Discourse

Concept 2: Critical Thinking in the Humanities (6 credits)

   ___________ (3)   ___________ (3)

Concept 3: Reasoning in the Social Sciences (6 credits)

   ___________ (3)   ___________ (3)

Concept 4: Reasoning in the Natural Sciences (6 credits)

   BIOL 1105 Principles of Biology\textsuperscript{*} (3)   BIOL 1106 Principles of Biology\textsuperscript{*} (3)

Concept 5: Quantitative and Computational Thinking (9 credits = 6 foundational + 3 advanced/applied)

   MATH 1025 Elementary Calculus\textsuperscript{*} (3)   MATH 1026 Elementary Calculus\textsuperscript{*} (3)
   STAT 3615 Biological Statistics\textsuperscript{a} (3)

Concept 6: Critique and Practice in Design and the Arts (6 credits = 3 design + 3 arts, or 6 integrated design/arts)

   ___________ (3) Arts   ___________ (3) Design

Concept 7: Critical Analysis of Identity and Equity in the United States (3 credit hours)

   ___________ (3)

BIOL Degree Core Requirements (20 credits)

   BIOL 1115 Principles of Biology Lab\textsuperscript{*} (1)   BIOL 2704 Evolutionary Biology\textsuperscript{a} (3)
   BIOL 1116 Principles of Biology Lab\textsuperscript{*} (1)   BIOL 2804 Ecology\textsuperscript{a} (3)
   BIOL 2004 Genetics\textsuperscript{a} (3)   CHEM 1035 General Chemistry\textsuperscript{*} (3)
   BIOL 2134 Cell Function and Differentiation\textsuperscript{a} (3)   CHEM 1036 General Chemistry\textsuperscript{*} (3)
### Biological Sciences Major Requirements (19 credits)

- BIOL 1004 Biology Orientation Seminar (1)
- CHEM 1045 General Chemistry Lab* (1)
- CHEM 1046 General Chemistry Lab* (1)
- CHEM 2535 Organic Chemistry* (3)
- CHEM 2536 Organic Chemistry* (3)
- CHEM 2545 Organic Chemistry Lab** (1)
- CHEM 2546 Organic Chemistry Lab** (1)
- PHYS 2205 General Physics* (3)
- PHYS 2206 General Physics* (3)
- PHYS 2215 General Physics Lab** (1)
- PHYS 2216 General Physics Lab** (1)

### EEB Option Electives (at least 21 credits)

1. Complete **one** of BIOL 2304, BIOL 2504, or BIOL 2604

   - BIOL 2304 Plant Biology* (3)  
   - BIOL 2504 General Zoology* (3)  
   - BIOL 2604 General Microbiology* (3)

2. Complete at least **9 credits** of the following organismal biology, behavior, and physiology courses:

   - BIOL 1034 Biology of Sex (3)
   - BIOL 1074 How Animals Think (3)
   - BIOL 3014 Insect Biology* (2)
   - BIOL 3204 Plant Taxonomy* (3)
   - BIOL 3404 Introductory Animal Physiology* (3)
   - BIOL 3454 Introductory Parasitology* (4)
   - BIOL 4354 Aquatic Entomology* (4)
   - BIOL 4404 Ornithology* (4)
   - BIOL 4454 Invertebrate Zoology* (4)
   - BIOL 4474 Ethology* (3)
   - BIOL 4554 Neurochemical Regulation* (3)
   - BIOL 4574 Social Behav Birds & Mammals* (3)
   - BIOL 4994 Undergraduate Research (A-F)* (3)
   - FIW 4334 Mammalogy* (4)
   - FIW 4344 Herpetology* (4)
   - FIW 4424 Ichthyology** (4)
   - FIW 4454 Freshwater Biomonitoring* (4)
   - BIOL 4594 EEB Senior Seminar* (3)
   - BIOL 4824 Bioinformatics Methods* (3)
   - BIOL 4994 Undergraduate Research (A-F)* (3)
   - CSES 3114 Soils* (3)
   - FIW 4614 Fish Ecology* (3)
   - FIW 4624 Marine Ecology* (3)

3. Complete at least **9 credits** of the following ecology and evolution courses:

   - BIOL 1064 Plants and Civilization (3)
   - BIOL 3254 Med & Vet Entomology* (3)
   - BIOL 4004 Freshwater Ecology* (4)
   - BIOL 4114 Global Change Ecology* (3)
   - BIOL 4134 Evolutionary Genetics* (3)
   - BIOL 4164 Environmental Microbiology* (3)
   - BIOL 4314 Plant Ecology* (4)
   - BIOL 4334 Chemical Ecology* (3)
   - BIOL 4484 Freshwater Biomonitoring* (4)
   - BIOL 4594 EEB Senior Seminar* (3)
   - BIOL 4824 Bioinformatics Methods* (3)
   - BIOL 4994 Undergraduate Research (A-F)* (3)
   - CSES 3124 Soils Laboratory* (1)
   - FIW 4334 Mammalogy* (4)
   - FIW 4344 Herpetology* (4)
   - FIW 4424 Ichthyology** (4)
   - FIW 4614 Fish Ecology* (3)
   - FIW 4624 Marine Ecology* (3)

4. Students must complete at least three laboratory courses from the following list (1-12 credits):

   - BIOL 2614 General Microbiology Laboratory* (2)
   - BIOL 3024 Insect Biology Laboratory* (2)
   - BIOL 3114 Field and Laboratory Ecology* (1)
   - BIOL 3204 Plant Taxonomy* (3)
   - BIOL 3264 Med & Vet Entomology Lab* (1)
   - BIOL 3454 Introductory Parasitology* (4)
   - BIOL 4004 Freshwater Ecology* (4)
   - BIOL 4314 Plant Ecology* (4)
   - BIOL 4354 Aquatic Entomology* (4)
   - BIOL 4404 Ornithology* (4)
   - BIOL 4454 Invertebrate Zoology* (4)
   - BIOL 4484 Freshwater Biomonitoring* (4)
   - BIOL 4824 Bioinformatics Methods* (3)
   - BIOL 4994 Undergraduate Research (A-F)* (3)
   - CSES 3124 Soils Laboratory* (1)
   - FIW 4334 Mammalogy* (4)
   - FIW 4344 Herpetology* (4)
   - FIW 4424 Ichthyology** (4)

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**Degree Core Requirements**

- Biological Science Major Requirements: 19 Credits
- EEB Option Electives: 21-30 Credits
- Pathways to General Education Requirements: 45 Credits
- Total Free Electives: 9-21 Credits
- Total Credits Required for Graduation: 120 Credits
Notes:

Students must have an in-major and overall GPA of 2.0 to graduate.

All BIOL courses (except 1004), any course taken to fulfill EEB Option elective credit, and all required CHEM, MATH, PHYS and STAT courses will be used to calculate in-major GPA.

1 Students must earn a grade of "C" or better in BIOL 1105, 1106, 1115, 1116, CHEM 1035, CHEM 1036, or the equivalent. Only two attempts, including course withdrawals with grade of "W", are allowed for each course.

2 BIOL 1004 is required but will not be used to calculate in-major GPA.

3 Courses used to complete the laboratory requirement may also count as EEB Option electives (sections 1-2).

4 A 3-credit BIOL 4994 experience taken for grade of A-F may count for EITHER EEB Elective Option group 1 OR 2.

^ Course has major restriction: students may ask FIW to be added if seats are available.

# Some courses listed on this checksheet may have prerequisites, please consult the University Course Catalog, or check with your advisor.

*Acceptable Substitutions

<table>
<thead>
<tr>
<th>Required Course</th>
<th>Acceptable Substitution(s)</th>
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<tbody>
<tr>
<td>BIOL 1105:</td>
<td>BIOL 1005 General Biology</td>
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<tr>
<td>BIOL 1106:</td>
<td>BIOL 1006 General Biology</td>
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<tr>
<td>BIOL 1115:</td>
<td>BIOL 1015 General Biology Lab OR BIOL 1125 Biological Principles Lab</td>
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<tr>
<td>BIOL 1116:</td>
<td>BIOL 1016 General Biology Lab OR BIOL 1126 Biological Principles Lab</td>
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<tr>
<td>BIOL 1105, 1115:</td>
<td>BIOL 1205H Honors Biology (4)</td>
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<tr>
<td>BIOL 1106, 1116:</td>
<td>BIOL 1206H Honors Biology (4)</td>
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<tr>
<td>BIOL 2134:</td>
<td>BIOL 2104 Cell and Molecular Biology</td>
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<tr>
<td>BIOL 2604:</td>
<td>BIOL 2604H Honors General Microbiology</td>
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<tr>
<td>BIOL 2704:</td>
<td>BIOL 2704H Honors Evolutionary Biology</td>
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<tr>
<td>BIOL 2804:</td>
<td>BIOL 2804H Honors Ecology</td>
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<tr>
<td>BIOL 4474:</td>
<td>PSYC 2074 Animal Behavior</td>
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<tr>
<td>CHEM 1035-1036:</td>
<td>CHEM 1055 -1056 General Chemistry for Majors</td>
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<td>CHEM 1045-1046:</td>
<td>CHEM 1065-1066 General Chemistry Lab for Majors</td>
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<tr>
<td>CHEM 2535-2536:</td>
<td>CHEM 2565-2566 Principles of Organic Chemistry</td>
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<tr>
<td>CHEM 2545-2546:</td>
<td>CHEM 2555-2556 Organic Synthesis and Techniques Lab</td>
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<tr>
<td>PHYS 2205, 2215:</td>
<td>PHYS 2305 Foundations of Physics</td>
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<td>PHYS 2206, 2216:</td>
<td>PHYS 2306 Foundations of Physics</td>
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<tr>
<td>MATH 1025:</td>
<td>MATH 1225 Calculus of a Single Variable</td>
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<tr>
<td>MATH 1026:</td>
<td>MATH 1226 Calculus of a Single Variable</td>
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</tbody>
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Cross-listed Courses on this Checksheet

ALS/BIOL 4554: Neurochemical Regulation
BIOL/HORT 2304: Plant Biology
CSES/ENT/BIOL 4164: Environmental Microbiology
CSES/ENSC/GEOS 3114: Soils
CSES 3124 / ENSC 3124 / GEOS 3624: Soils Laboratory
ENT/BIOL 3014: Insect Biology
ENT/BIOL 3024: Insect Biology Laboratory
ENT/BIOL 3254: Med and Vet Entomology
ENT/BIOL 3264: Med and Vet Ent Lab
ENT/BIOL 4354: Aquatic Entomology
ENT/FIW/BIOL 4484: Freshwater Biomonitoring
Satisfactory Progress Toward Degree
1. Students must earn a grade of "C" or better in BIOL 1105, 1106, 1115, 1116, CHEM 1035, CHEM 1036 or equivalent upon attempting 45 credit hours (including transfer credit, advance placement or IB credit, advance standing credit, credit by examination, courses taken P/F, and courses completed with a grade of "W"). Only two attempts are allowed for each course.

2. Students must achieve an overall GPA of 2.0 and in-major GPA of 2.2 after attempting 45 credit hours (including transfer credit, advanced placement or IB credit, advance standing credit, credit by examination, courses taken P/F, and courses completed with a grade of "W").

3. All BIOL courses (except 1004), any course taken to fulfill Biological Sciences elective credit, and all required CHEM, MATH, PHYS, and STAT courses will be used to calculate in-major GPA.

4. The following courses must be completed by the time the student has attempted 72 hours.
   - BIOL 1105, 1106, 1115, 1116 (or equivalents)
   - CHEM 1035, 1036, 1045, 1046 (or equivalents)
   - MATH 1025, 1026 (or equivalents)

College of Science Foreign Language Requirement:
Students who did not successfully complete at least two years of a single foreign, classical, or sign language during high school must successfully complete six semester hours of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement do not count toward the hours required for graduation. Please consult the Undergraduate Catalog for details.