

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^{1*} (3)

BIOL 1106 Principles of Biology^{1*} (3)

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

MATH 1025 Elementary Calculus* (3)

MATH 1026 Elementary Calculus* (3)

STAT 3615 Biological Statistics[#] (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^{1*} (1)

BIOL 1116 Principles of Biology Lab^{1*} (1)

BIOL 2004 Genetics[#] (3)

BIOL 2134 Cell Function and Differentiation[#] (3)

BIOL 2704 Evolutionary Biology[#] (3)

BIOL 2804 Ecology[#] (3)

CHEM 1035 General Chemistry^{1*} (3)

CHEM 1036 General Chemistry^{1*} (3)

Biological Sciences Major Requirements (19 credits)

BIOL 1004 Biology Orientation Seminar ² (1)	CHEM 2546 Organic Chemistry Lab ^{**} (1)
CHEM 1045 General Chemistry Lab* (1)	PHYS 2205 General Physics ^{**} (3)
CHEM 1046 General Chemistry Lab* (1)	PHYS 2206 General Physics ^{**} (3)
CHEM 2535 Organic Chemistry ^{**} (3)	PHYS 2215 General Physics Lab ^{**} (1)
CHEM 2536 Organic Chemistry ^{**} (3)	PHYS 2216 General Physics Lab ^{**} (1)
CHEM 2545 Organic Chemistry Lab ^{**} (1)	

EEB Option Electives (at least 21 credits)³

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

BIOL 2304 Plant Biology [#] (3)	BIOL 2604 General Microbiology [#] (3)
BIOL 2504 General Zoology [#] (3)	

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

BIOL 1034 Biology of Sex (3)	BIOL 4454 Invertebrate Zoology [#] (4)
BIOL 1074 How Animals Think (3)	BIOL 4474 Ethology [#] (3)
BIOL 3014 Insect Biology [#] (2)	BIOL 4554 Neurochemical Regulation [#] (3)
BIOL 3204 Plant Taxonomy [#] (3)	BIOL 4574 Social Behav Birds & Mammals [#] (3)
BIOL 3404 Introductory Animal Physiology [#] (3)	BIOL 4994 Undergraduate Research (A-F) ⁴ (3)
BIOL 3454 Introductory Parasitology [#] (4)	FIW 4334 Mammalogy [#] (4)
BIOL 4354 Aquatic Entomology [#] (4)	FIW 4344 Herpetology [#] (4)
BIOL 4404 Ornithology [#] (4)	FIW 4424 Ichthyology ^{#^} (4)

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

BIOL 1064 Plants and Civilization (3)	BIOL 4484 Freshwater Biomonitoring [#] (4)
BIOL 3254 Med & Vet Entomology [#] (3)	BIOL 4564 Infectious Disease Ecology [#] (3)
BIOL 4004 Freshwater Ecology [#] (4)	BIOL 4594 EEB Senior Seminar [#] (3)
BIOL 4114 Global Change Ecology [#] (3)	BIOL 4824 Bioinformatics Methods [#] (3)
BIOL 4134 Evolutionary Genetics [#] (3)	BIOL 4994 Undergraduate Research (A-F) ⁴ (3)
BIOL 4164 Environmental Microbiology [#] (3)	CSES 3114 Soils [#] (3)
BIOL 4314 Plant Ecology [#] (4)	FIW 4614 Fish Ecology [#] (3)
BIOL 4334 Chemical Ecology [#] (3)	FIW 4624 Marine Ecology [#] (3)

4. Students must complete **at least three** laboratory courses from the following list (1-12 credits)³:

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

Degree Core Requirements
Biological Science Major Requirements
EEB Option Electives
Pathways to General Education Requirements
Total Free Electives
Total Credits Required for Graduation

20 Credits
19 Credits
21-30 Credits
45 Credits
9-21 Credits
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**

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

Cross-listed Courses on this Checksheet

ALS/BIOL 4554: Neurochemical Regulation
 BIO/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.