

FOUR-YEAR PLAN

Biology—Molecular Biology, B.S.

15% Finish



Semester 1

| Course | Credits | Grade | | ✓ |
|------------------------------------------------------|-----------|-------|--|--------------------------|
| ENGL 101: Composition & Rhetoric I | 3 | C* | | <input type="checkbox"/> |
| BIOL 121/L: Foundations of Biology I with Lab | 4 | C | | <input type="checkbox"/> |
| BIOL 130: Freshmen Biology Seminar | 1 | C | | <input type="checkbox"/> |
| CHEM 101/111: General Chemistry I with Lab | 4 | C | | <input type="checkbox"/> |
| MATH 103: College Algebra | 3 | C | | <input type="checkbox"/> |
| UNIV 100: CU Foundations | 1 | | | <input type="checkbox"/> |
| | 16 | | | |

Semester 2

| Course | Credits | Grade | | ✓ |
|-------------------------------------------------------|-----------|-------|--|--------------------------|
| ENGL 102: Composition & Rhetoric II | 3 | C* | | <input type="checkbox"/> |
| BIOL 122/L: Foundations of Biology II with Lab | 4 | C | | <input type="checkbox"/> |
| CHEM 102/112: General Chemistry II with Lab | 4 | C | | <input type="checkbox"/> |
| MATH 104: College Trigonometry | 3 | | | <input type="checkbox"/> |
| | 14 | | | |

Semester 3

| Course | Credits | Grade | | ✓ |
|------------------------------------------------|-----------|-------|--|--------------------------|
| CHEM 331: Organic Chemistry I | 4 | | | <input type="checkbox"/> |
| MATH 105: Elementary Statistics | 3 | | | <input type="checkbox"/> |
| Directed Elective | 4 | | | <input type="checkbox"/> |
| General Education Course (PSY 101 recommended) | 3 | | | <input type="checkbox"/> |
| General Education Course | 3 | | | <input type="checkbox"/> |
| | 16 | | | |

Semester 4

| Course | Credits | Grade | | ✓ |
|------------------------------------------------------------|-----------|-------|--|--------------------------|
| BIOL 230: Sophomore Biology Seminar | 1 | | | <input type="checkbox"/> |
| BIOL 202: Animals as Organisms or Directed Elective | 4 | | | <input type="checkbox"/> |
| Directed Elective | 4 | | | <input type="checkbox"/> |
| General Education Course (SOC 101 recommended) | 3 | | | <input type="checkbox"/> |
| Elective/Minor | 3 | | | <input type="checkbox"/> |
| | 15 | | | |



The **Bachelor of Science in Biology** degree with Molecular Biology emphasis is designed for students planning to attend a graduate school (in fields such as agriculture, biochemistry, cell biology, ecology, environmental science, genetics, etc.), veterinary school, or a human health professional school (such as medical, dental, chiropractic, or pharmacy).



MILESTONE COURSES

Courses marked as Milestone Courses are crucial for staying on track to complete your degree in four years. Take them in the recommended semester to stay on track! If you see a recommended minimum grade, this is the grade you need to earn to have the best chance for success in this degree! Grades marked with an asterisk are required to pass.



LANDMARKS

Points where you see a landmark icon on the four-year plan indicate you have reached a point of action outside regular coursework! See the Helpful Hints for information on each landmark.

Helpful Hints

- Use this plan in consultation with your Academic Advisor.
- This four-year plan assumes you begin your degree in the Fall semester. Courses in **bold** are only offered during the semester shown.
- Semesters 1 & 2: MATH 103 and MATH 104 are *not* required for this degree, but are recommended. Also, MATH 103 & 104 or equivalent proficiency is required for PHYS 101.
- See the [Academic Catalog](#) and discuss with your advisor about courses that fulfill the Directed Elective requirements and align with your career goals.

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Semester 5

| Course | Credits | Grade | ✓ |
|--------------------------------------|---------|-------|--------------------------|
| BIOL 302: Cell and Molecular Biology | 4 | | <input type="checkbox"/> |
| PHYS 101: Introductory Physics | 4 | | <input type="checkbox"/> |
| Directed Elective | 4 | | <input type="checkbox"/> |
| General Education Course | 3 | | <input type="checkbox"/> |
| | 15 | | |

Semester 6

| Course | Credits | Grade | ✓ |
|-------------------------------------|---------|-------|--------------------------|
| BIOL 401: Genetics | 4 | | <input type="checkbox"/> |
| CHEM 341/347: Biochemistry with Lab | 4 | | <input type="checkbox"/> |
| PHYS 102: Intermediate Physics | 4 | | <input type="checkbox"/> |
| Elective/Minor | 3 | | <input type="checkbox"/> |
| | 15 | | |

Semester 7

| Course | Credits | Grade | ✓ |
|------------------------------------------------------------|---------|-------|--------------------------|
| BIOL 201: Ecology and Field Methods or BIOL 369: Evolution | 3-4 | | <input type="checkbox"/> |
| BIOL 301: Plants as Organisms or Directed Elective | 4 | | <input type="checkbox"/> |
| General Education Course | 3 | | <input type="checkbox"/> |
| General Education Course | 3 | | <input type="checkbox"/> |
| | 13-14 | | |

Semester 8

| Course | Credits | Grade | ✓ |
|----------------------------|---------|-------|--------------------------|
| BIOL 455: Biology Capstone | 2 | | <input type="checkbox"/> |
| Directed Elective | 4 | | <input type="checkbox"/> |
| General Education Course | 2-3 | | <input type="checkbox"/> |
| General Education Course | 3 | | <input type="checkbox"/> |
| Elective/Minor | 3-4 | | <input type="checkbox"/> |
| | 14-16 | | |



ADVISING

When you choose to pursue this degree, you will be assigned an advisor who is an expert in the field of Biology. This advisor can help you with course selection, career planning, resume building, and help you with tracking your path to degree completion.

CAREERS

Chiropractor
Dentist
Environmental Consultant
Medical Doctor
Pharmacist
Research Technician
Science Educator
Veterinarian

STUDENT ORGANIZATIONS

PATCH
CU ACS
Sigma Zeta (honor society)
Women in STEM

COMPLEMENTARY MINORS

Chemistry
Computer Science
Geology
Mathematics
Physics
Psychology
Statistics

Helpful Hints

- Students must take either BIOL 202 or BIOL 301.
- Students must take either BIOL 201 or BIOL 369.
- Semester 8 Landmark—Students completing the biology capstone will analyze a current issue in biology, write a critical review, and give an oral presentation which is open to the public. **At the end of the course, comprehensive program assessments are administered; a passing grade must be obtained.** Students have the option to take BIOL 470: Senior Independent Research I (3) and BIOL 471: Senior Independent Research II (3) instead of BIOL 455.