

# BIOLOGY - INTEGRATIVE BIOLOGY TRACK, BS

## Introduction

The Integrative Biology Track is very flexible and offers students with diverse interests an opportunity to fully explore the field of biology. This Track is also great for students interested in becoming K12 Teachers because it allows them to take a diverse set of courses, so they are prepared to teach all aspects of biology.

## Program Delivery

- This is an on-campus program.

## Declaring This Major

- Click here (<http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/college-liberal-arts-sciences/#policiestext>) to go to information about declaring a major.

## General Requirements

To earn a degree, students must satisfy all requirements in each of the three areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements (<http://catalog.ucdenver.edu/cu-denver/undergraduate/graduation/>)
- CU Denver Core Curriculum (<http://catalog.ucdenver.edu/cu-denver/undergraduate/graduation-undergraduate-core-requirements/>)
- College of Liberal Arts & Sciences Graduation Requirements (<http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/college-liberal-arts-sciences/#graduationrequirements>)
- Click here (<http://catalog.ucdenver.edu/cu-denver/undergraduate/academic-policies-procedures/>) for information about Academic Policies

## Program Requirements

- Students must complete a minimum of 36 BIOL credit hours.
- Students must complete a minimum of 15 credit hours in ancillary coursework.
- Students must complete a minimum of 18 upper division (3000- level and above) BIOL credit hours.
- Students must earn a minimum grade of C- (1.7) in all courses that apply to the major and must achieve a minimum cumulative major GPA of 2.0. Courses taken using P+/P/F or S/U grading cannot apply to major requirements.
- Students must complete a minimum of 18 upper division (3000-level and above) BIOL credit hours with CU Denver faculty and at least 6 credits must be at 4000-level or higher.

## Program Restrictions, Allowances and Recommendations

- Courses more than ten years old will not count automatically, but can be evaluated individually for their current relevance to the degree program through a petition process with the Department of Integrative Biology Curriculum Committee. Approval for courses older than ten years is not guaranteed so students may be required

to update their knowledge by taking additional courses when past courses are outdated.

- Undergraduate students may count up to six credit hours of independent study or internship (any combination of BIOL 3840 Independent Study, BIOL 3939 Internship, BIOL 4840 Independent Study, BIOL 4880 Directed Research) toward the upper-division Biology electives requirement in the major.

Code	Title	Hours
<b>Complete the following required biology courses:</b>		<b>20</b>
BIOL 2010	Organisms to Ecosystems (Gen Bio)	
	or BIOL 203C Honors Organisms to Ecosystems (Gen Bio)	
BIOL 2011	Organisms to Ecosystems Lab (Gen Bio)	
	or BIOL 2031 Honors Organisms to Ecosystems Lab (Gen Bio)	
BIOL 2020	Molecules to Cells (Gen Bio)	
	or BIOL 204C Honors Molecules to Cells (Gen Bio)	
BIOL 2021	Molecules to Cells Lab (Gen Bio)	
	or BIOL 2041 Honors Molecules to Cells Lab (Gen Bio)	
BIOL 3411	Principles of Ecology	
BIOL 3445	Introduction to Evolution	
BIOL 3611	General Cell Biology	
BIOL 3832	General Genetics	
	or BIOL 3124 Introduction to Molecular Biology	
<b>Complete the following required ancillary classes:</b>		<b>9</b>
CHEM 2031	General Chemistry I	
	or CHEM 208H Honors General Chemistry I	
CHEM 2038	General Chemistry Laboratory I	
	or CHEM 203C Majors General Chemistry I Laboratory	
	or CHEM 203H Honors General Chemistry I Laboratory	
CHEM 2061	General Chemistry II	
	or CHEM 209H Honors General Chemistry II Lecture	
CHEM 2068	General Chemistry Laboratory II	
	or CHEM 206C Majors General Chemistry II Laboratory	
	or CHEM 206H Honors General Chemistry II Laboratory	
<b>Choose one quantitative class from this list:</b>		<b>3-4</b>
BIOL 3762	Biostatistics	
MATH 1401	Calculus I	
MATH 4830	Applied Statistics	
<b>Choose one writing intensive class from this list:</b>		<b>3</b>
COMM 4550	Rhetorics of Medicine & Health	
ENGL 3154	Technical Writing (also satisfies CLAS Communicative Skills requirement)	
ENGL 4175	Writing in the Sciences (also satisfies CLAS Communicative Skills requirement)	
ENGL 4180	Argumentation and Logic (also satisfies CLAS Humanities requirement)	
ENGL 4280	Proposal and Grant Writing (also satisfies CLAS Humanities requirement)	
<b>Choose at least one upper division BIOL lab class:</b>		<b>3</b>
BIOL 3227	Human Physiology Lab	
BIOL 3241	Human Anatomy Cadaver Lab	
BIOL 3242	Virtual Human Anatomy Lab	
BIOL 3413	Ecology Laboratory	
BIOL 3651	General Microbiology Lab	

BIOL 4125 Molecular Biology Laboratory

BIOL 4335 Plant Structure and Development

BIOL 4345 Flora of Colorado

BIOL 4644 Advanced Human Anatomy Laboratory

BIOL 4910 Field Studies

**Choose at least two three credit hour 4000 level BIOL classes (must be taken from a UCD faculty) Excludes, BIOL 4840, BIOL 4880 and BIOL 4125. 6**

**Choose any BIOL credits that have not been used anywhere else above to reach 36 total credits in BIOL (courses for non-science majors excluded).**

---

**Total Hours 44-45**

To learn more about the Student Learning Outcomes for this program, please visit our website. ([https://clas.ucdenver.edu/integrative-biology/academics/undergraduate-programs/#biology\\_major-73](https://clas.ucdenver.edu/integrative-biology/academics/undergraduate-programs/#biology_major-73))

To review the Degree Map for this program, please visit our website (<https://www.ucdenver.edu/student/advising/undergraduate/degree-maps/clas/>).