

Biology

Degree Type

Major

Program Goals for Biology

The Biology program at Bethany College is designed to achieve the following goals for its students:

- To improve and develop writing, oral, and reading skills in scientific communication.
- To experience, develop, and demonstrate an understanding of the scientific method as an approach to problem solving.
- To prepare students for professional and graduate schools and for employment in science related fields.
- To help students see their place in the evolution of living things and to understand the taxonomy and ecology of living things and the student's place in the world of living organisms .
- To provide students with the opportunity to learn basic knowledge from the broad field of Biology.

Requirements for Major in Biology

All students majoring in Biology must complete a minimum of 44 credits in courses in Biology including those listed below:

Item #	Title	Credits
BIOL 103	Introductory Biology I: Molecular Genetics, Cell, and Development	4
BIOL 104	Introductory Biology II: Evolution, Diversity, and Ecology	4
BIOL 108	Botany	4
BIOL 180	Invertebrate Zoology	4
BIOL 290	Genetics	4
BIOL 308	Comparative Vertebrate Anatomy	4
BIOL 378	Junior Seminar I	1
BIOL 379	Junior Seminar II	1
BIOL 477	Senior Seminar I	1
BIOL 478	Senior Seminar II	1
BIOL 490	Senior Project	2-3
BIOL 495	Comprehensive Exams	

All students majoring in Biology must also complete:

Item #	Title	Credits
PHYS 201	General Physics I	4
PHYS 202	General Physics II	4
CHEM 101	General Chemistry I	4
CHEM 102	General Chemistry II	4
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4

A semester each of calculus and statistics are highly recommended. Students with a special interest in botany should elect BIOL 338 as the course from BIOL 300, 338, or 442; BIOL 102, 228, and 326 are strongly recommended.

All students majoring in Biology must also complete one of the following tracks:

Biology Track

Item #	Title	Credits
BIOL 326	Ecology	3
	Two courses from BIOL 341, 343, 351, 425	8
	One Course from BIOL 300, 338, or 442	3-4

Biochemistry Track

Item #	Title	Credits
BIOL 320	Physical Chemistry I with Biological Applications	4
	BIOL 341 or 343	4
BIOL 351	Molecular Biology and Biochemistry I	4
BIOL 352	Molecular Biology and Biochemistry II	4
	8 Credits of Calculus	8
		68-86