

BIOLOGY MAJOR

Major Requirements

The requirements for a **major in biology** are 32 credits in biology plus 12 supporting credits:

Code	Title	Hours
Biology Courses		
BIOL 121	Cell Biology	4
BIOL 122	Evolution and Diversity	4
BIOL 221	Ecology	4
BIOL 222	Genetics and Molecular Biology	4
Field Courses		
Select one of the following 4-credit field courses: ¹		4
BIOL 305	Ecology and Field Biology	
BIOL 309	Ornithology	
BIOL 311	Entomology	
BIOL 312	Mammalogy	
BIOL 313	Plant Taxonomy	
BIOL/ENVR 327	Conservation Biology	
BIOL 409	Limnology	
BIOL 444	Ecology of East Africa	
ESC 302	Geology (Education majors only)	
Laboratory-Based Courses		
Select one of the following 4-credit laboratory-based courses:		4
BIOL 306	Human Anatomy and Physiology	
BIOL 336	Histology	
BIOL 350	Animal Behavior	
BIOL 352	Immunology and Parasitology	
BIOL/NEU 400	Neurobiology	
BIOL 402	Embryology	
BIOL 406	Advanced Cell Biology	
BIOL 407	Microbiology	
BIOL 411	Integrated Vertebrate Anatomy and Physiology I	
BIOL 412	Integrated Vertebrate Anatomy and Physiology II	
BIOL 416	Advanced Topics in Genetics	
300- or 400-Level Biology Courses		
8 additional credits from 300- or 400-level biology courses ²		8
Supporting Courses		
CHEM 127	General Chemistry I	4
CHEM 128	General Chemistry II	4
Select one of the following:		4
MATH 110	Precalculus	
MATH 121	Calculus I	
MATH 205	Introduction to Statistics	
Total Hours		44

¹ All field courses include an off-campus learning experience of at least two to three days.

² No more than the equivalent of 4 credits from the following may be applied toward the major:

BIOL 300 May Seminar, BIOL 380 Special Topics, BIOL 480 Independent Study, BIOL 487 Directed Research/NEU 487 Directed Research

The following cannot be counted toward a major:

BIOL 303 Biomedical Ethics, BIOL 390 Internship, BIOL 395 Internship in Medicine

The biology major field test provided by Educational Testing Service must be taken the last semester prior to graduation. The department will announce the date.

Organic chemistry, physics and mathematics are recommended courses for biology majors. For graduate work in the biological sciences, many schools require the following or their equivalents:

Code	Title	Hours
MATH 121	Calculus I	4
MATH 122	Calculus II	4
PHYS 111	General College Physics I	4
PHYS 112	General College Physics II	4
CHEM 341	Organic Chemistry I	4
CHEM 342	Organic Chemistry II	4
CHEM 373	Biochemistry I	4
An applied statistics course, such as:		
MATH 205	Introduction to Statistics	4
Research experience, such as:		
BIOL/NEU 487	Directed Research	1-4
BIOL 497	Research Seminar	4

Degree and Graduation Requirements

In addition to the program-specific requirements listed above, all students must complete the graduation requirements specified for their degree. See the Degree and Graduation Requirements (<https://catalog.concordiacollege.edu/undergraduate-academic-community/degree-graduation-requirements/>) section for more information.