

BIOLOGY (BI) MAJOR

What you will study

Biology, the study of living organisms and life processes, is the most all-encompassing of the sciences. Understanding basic life processes requires working in many areas in an integrated way.

We want you to be able to use science effectively. You take part in both individual and group investigative laboratories as part of the first two science courses. You develop a real sense of all the planning, the work, the frustration, the excitement – the reality of doing science.

As you progress and refine and build upon these basic abilities, you continue to design and perform experiments in the laboratory and in the field. You learn to use your investigative projects to engage in the more complex work of making relationships and perceiving patterns.

In intermediate courses, you ask more in-depth questions. You build and evaluate scientific models, showing how different biological concepts fit together – and you subject those models to testing, practicing professional methods of data gathering and record keeping. You strengthen your abilities through self-assessment, learning to be an independent judge of your progress.

This self-assessment leads you into advanced work, where you become responsible for your own learning strategies, your goals in long-term projects, and your actions in the internship. You decide what laboratory methods are appropriate for the problems you are investigating and what statistical tests should be applied to your data. And you analyze the role of science in society and develop your own code of scientific ethics, preparing yourself for your future as a professional biologist.

INTERN-383	Internship Seminar	2
BI-374	BI Assessment in Effective Citizenship	1
BI-399	Formal Introduction to Advanced Work	0
MT-256	Probability and Statistics	4
PH-231 & 231L	Algebra-Based Physics I and Physics Lab	4
or PH-241 & 241L	Calculus-Based Physics 1 and Physics Lab	
PH-232 & 232L	Algebra-Based Physics 2 and Physics 2 Lab	4
or PH-242 & 242L	Calculus-Based Physics 2 and Calculus-Based Physics 2	
BI Elective	Biology (BI) Electives	6-7
Advanced Requirements		
BI-491	Senior Environmental Seminar	3

Requirements

Code	Title	Credits
Beginning Requirements		
MT-123	College Algebra	3
or MT-148	Functions & Modeling	
or MT-152	Calculus 1	
MT-124	Trigonometry	2
Intermediate Requirements		
CH-213 & 213L	Chemistry of Bioorganic Molecules and Chemistry of Bioorganic Molecules Lab	4
BI-221 & 221L	Biology of Plants and Biology of Plants Lab	4
or BI-222 & 222L	Biology of Animals and Biology of Animals Lab	
or BI-223	Natural History of North America	
BI-251 & 251L	Microbiology and Microbiology Lab	4
BI-233 & 233L	Human Anatomy & Physiology 1 and Human Anatomy & Physiology 1 Lab	4
BI-341	Ecology	4
BI-325 & 325L	Cellular Biology and Cellular Biology Lab	4
BI-361 & 361L	Genetics Lecture and Genetics Lab	4