

# BIOLOGY (B.A.)

## Bachelor of Arts Program

Program Code: BA-AS

Major Code: BIO

## Biology Department

SAMC 166

(716) 878-5203

biology.buffalostate.edu/ (<http://biology.buffalostate.edu/>)

The B.A. degree program in the biological sciences prepares students for several options, including various employment opportunities at the bachelor's degree level, and entrance to graduate or professional schools.

A departmental honors program is also available. Students should contact the department for additional information.

BIO 111 is the required initial biology course in the program. Students must earn a C or better in BIO 111 to take more advanced biology courses.

## Academic Performance Policy

Students who have a GPA of less than 2.0 in BIO-prefixed courses required for the major at the end of a semester will be placed on departmental probation. Students will then have two semesters to raise their GPA to a 2.0 or greater in BIO-prefixed required courses or they will be dismissed from the department.

## Program Requirements

Code	Title	Credit Hours
General Education 23 Requirements ( <a href="http://ecatalog.buffalostate.edu/undergraduate/collegewide-degree-requirements-baccalaureate-degrees/#IF_Courses">http://ecatalog.buffalostate.edu/undergraduate/collegewide-degree-requirements-baccalaureate-degrees/#IF_Courses</a> )		
33 credit hours		33
<b>Biology Major Requirements (40-43 credit hours)</b>		
<i>Required Courses (15 credit hours)</i>		
BIO 111	FOUNDATIONS OF BIOLOGY	3
BIO 211	INTRODUCTION TO CELL BIOLOGY AND GENETICS	4
BIO 213	INTRODUCTION TO ECOLOGY, EVOLUTION, AND BEHAVIOR	4
BIO 333	BIOLOGICAL FORM, FUNCTION AND DIVERSITY	4
<i>Concentration Courses</i>		
Students are required to complete one of the following concentrations:		26-28
<b>Integrative Biology Concentration (26-28 credit hours)</b>		

Select two from the following courses:

BIO 314	ADVANCED CELL BIOLOGY
BIO 315	ECOLOGY
BIO 405	EVOLUTION
BIO 440	APPLICATIONS IN BIOTECHNOLOGY

Select 20 credits of elective biology courses at the 300 level or above.

Electives may include up to 8 credits from BIO 308, BIO 309, BIO 311, and BIO 312

*Excludes BIO 322, BIO 324, and BIO 355*

Up to 9 credits total of BIO 361/362 Biology Seminar, BIO 488 Biology Internship, BIO 495 Special Project, and BIO 499 Independent Study may be applied to the Biology elective requirement. Of this total, no more than 2 cr from BIO 361/362 Biology Seminar and 3 cr from BIO 488 Biology Internship may be used.

## Aquatic Biology Concentration (25-26 credit hours) 25-26

BIO 300	BIostatistics
or MAT 3	INTRODUCTORY PROBABILITY AND STATISTICS
BIO 315	ECOLOGY
BIO 405	EVOLUTION
BIO 488	BIOLOGY INTERNSHIP

Select three from the following:

BIO 325	ICHTHYOLOGY
BIO 418	LIMNOLOGY
BIO 429	FISHERIES BIOLOGY
BIO 430	STREAM ECOLOGY

## Required Credit Hours Outside the Major (8 credit hours)

CHE 111 & CHE 113	FUNDAMENTALS OF CHEMISTRY I and LABORATORY FOR FUNDAMENTALS OF CHEMISTRY I
CHE 112 & CHE 114	FUNDAMENTALS OF CHEMISTRY II and LABORATORY FOR FUNDAMENTALS OF CHEMISTRY II

## All College Electives

21-35 credit hours 21-35

**Total Credit Hours 120**

Students will:

1. demonstrate an understanding of core concepts and principles in Biology
2. demonstrate proficiency in scientific writing