Bachelor of Arts in Biological Sciences

The Bachelor of Arts (BA) in Biological Sciences prepares students for careers in biology, graduate programs in biological sciences, and professional programs in health fields including medical, dental and veterinary.

Admission Requirements

- Complete the Admission Requirements for Baccalaureate Degrees (http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/).

Academic Requirements

To graduate with a Bachelor of Arts (BA) in Biological Sciences, the student must complete all courses covered under major requirements for a BA in Biological Sciences with a minimum grade of C. All prerequisites for Biology (BIOL) courses must be completed with a minimum grade of C. Students who audit or are unable to earn a minimum grade of C in a lower-division (100- or 200-level) BIOL course may repeat the course two additional times on a space-available basis. Students who audit or are unable to earn a minimum grade of C in an upper-division (300- or 400-level) BIOL course may repeat the course one additional time on a space-available basis. Students repeating a BIOL course are required to complete all components of that course during the semester in which the course is retaken. When repeating a course with a lecture and laboratory component, both components must be repeated. Students enrolled in a BIOL laboratory must attend lab the first week of class or they may be administratively dropped.

Graduation Requirements

- Complete the General University Requirements for Baccalaureate Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureaterequirements/).
- Complete the General Education Requirements for Baccalaureate Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureaterequirements/gers/).
- Major requirements include both 27 credits in support courses from outside the discipline and 52-53 credits of coursework in biology, other natural sciences and math.
- Complete an exit examination.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Support Courses		
Complete 27 credits from the following prefixes, 9 credits of which must be upper-division, and may include courses from the general education requirements lists. You must complete a minimum of 3 credits from each of the following areas:		27
Fine Arts (ART, CWLA, DNCE, MUS, THR)		
Humanities (AKNS, ART, ASL, ENGL, FREN, GER, HIST, HUM, JPN, LING, PHIL, PS, RUSS, SPAN)		
Social Sciences (ANTH, BA, CEL, ECON, ENVI, GEOG, INTL, HS, JPC, JUST, LEGL, PSY, SOC, SWK, WSGS)		
Core Courses		
BIOL A108	Principles and Methods in Biology	6
BIOL A242	Fundamentals of Cell Biology	3
BIOL A243	Experiential Learning: Cell Biology and Genetics	4
or BIOL A273	Experiential Learning: Ecology and Evolution	
BIOL A252	Principles of Genetics	3
BIOL A271	Principles of Ecology	3
BIOL A288	Principles of Evolution	3
BIOL A492	Undergraduate Seminar	1
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	4
CHEM A106 & A106L	General Chemistry II and General Chemistry II Laboratory	4
STAT A200	Elementary Statistics	3-4
or STAT A253	Applied Statistics for the Sciences	
or STAT A307	Probability and Statistics	
Upper-Division Program Electives		**18**
Complete a minimum of 3 credits from four of the five subject areas. A minimum of 6 credits must be experiential learning courses from two subject areas. [1]		
Genetics, Cellular and Molecular Biology		
BIOL A452	Human Genome	
BIOL A455	Experiential Learning: Bioinformatics	
BIOL A461	Molecular Biology	
BIOL A463	Molecular Biology of Cancer	
BIOL A465	Experiential Learning: Molecular Biology	
BIOL/CHEM A471	Immunology	
MBIO A340	Microbial Biology	
MBIO A342	Experiential Learning: Microbial Biology	
MBIO A460	Host-Microbiome Interactions	
MBIO A462	Virology	
Ecology and Evolution		
BIOL A430	Marine Mammal Biology	
BIOL A441	Animal Behavior	
BIOL A442	Experiential Learning: Animal Behavior	
BIOL A467	Wildlife Ecology	
BIOL A472	Biogeography	

BIOL A473	Conservation Biology
BIOL/CHEM A474	Ecotoxicology
BIOL A477	Tundra and Taiga Ecosystems
BIOL A478	Biological Oceanography
BIOL A481	Marine Biology
BIOL A483	Exploration Ecology
BIOL A484	Experiential Learning: Exploration Ecology Field Study
BIOL A486	Evolutionary Ecology
MBIO A450	Microbial Ecology
MBIO/GEOL A468	Geomicrobiology
MBIO A470	Ecology and Evolution of Infectious Disease
Diversity and Organismal Biology	
BIOL A320	Vertebrate Biology
BIOL A321	Experiential Learning: Vertebrate Biology
BIOL A330	Plant Biology
BIOL A423	Ichthyology
BIOL A427	Marine Invertebrate Biology
BIOL A430	Marine Mammal Biology
BIOL A431	Plant Diversity and Evolution
BIOL A487	Comparative Anatomy of Vertebrates
MBIO A340	Microbial Biology
MBIO A342	Experiential Learning: Microbial Biology
MBIO A440	Microbial Diversity
Physiology	
BIOL A310	Principles of Animal Physiology
BIOL A311	Experiential Learning: Animal Physiology
BIOL A412	Behavioral Endocrinology
BIOL A413	Neurophysiology
BIOL A415	Comparative Animal Physiology
BIOL A417	Applied Kinesiology and Exercise Physiology
BIOL A418	Fish Physiology
BIOL A419	Sleep and Chronobiology
BIOL A487	Comparative Anatomy of Vertebrates
MBIO A410	Microbial Physiology
Additional Upper-Division Electives	
BIOL A490	Selected Lecture Topics in Biology
BIOL A490L	Selected Laboratory Topics in Biology [1]
BIOL A495	Instructional Practicum: Laboratory
BIOL A497	Independent Study in Biology
BIOL A498	Individual Research [1]
BIOL A499	Senior Thesis
Total	**79-80**

[1] *Several courses are listed in more than one area. Each course can only count toward the credit requirement in one area. BIOL A498 and BIOL A490L credits may not be counted toward the experiential learning minimum requirement.*

A minimum of 120 credits is required for the degree, 39 credits of which must be upper-division.

Biological Sciences Exit Examination

All BA Biological Sciences majors are required to complete a nationally standardized exit examination during the semester immediately prior to or during the semester they intend to graduate. There is no minimum score required for graduation.

Honors in Biological Sciences

The Bachelor of Arts (BA) in Biological Sciences recognizes distinguished achievement by conferring programmatic honors in biological sciences. In order to receive honors in biological sciences, a student must meet the following requirements:

- Meet the requirements for Graduation with Honors (http://catalog.uaa.alaska.edu/academicpoliciesprocesses/academicstandardsregulations/graduation/);
- Meet the requirements for a BA in Biological Sciences;
- Earn a minimum GPA of 3.50 in the major requirements;
- During the senior year of their academic program, the student must gain faculty approval for and complete, with a minimum grade of B, a senior thesis research project, with enrollment in BIOL A499. Biological science faculty members must approve the project proposal and final written report.