INDIANA UNIVERSITY
NORTHWEST

BIOLOGY | COLLEGE OF ARTS AND SCIENCES

B.A. / B.S. IN BIOLOGY

Biology is the study of life and living organisms and their vital processes, including their structure, function, growth, origin, evolution, distribution, and taxonomy.

A Bachelor of Arts or Bachelor of Science in Biology provides students with a rigorous general background in the study of life sciences to prepare them for science-related jobs requiring bachelor's-level training or graduate or professional school. The requirements in chemistry, mathematics, and physics maximize the student's future opportunities and provide a rigorous background in fundamental biology. The program prepares students for professional or research-oriented careers and graduate work in a selected area of biology.

Students who major in biology can concentrate their study in:

- Pre-professional Study and Bio-Medical Science (i.e., professions in human health fields)
- Biotechnology and Molecular Biology
- Environmental Science
- Organismal Biology

Each student majoring in biology is encouraged to acquire in-depth knowledge in related scientific disciplines or in other areas of study that use biology or contribute to biological methodologies. Biology students are thus encouraged to consider obtaining a minor in another area of study.

DEGREE REQUIREMENTS

Completion of a B.A. in biology requires 120 credit hours and a minimum of a 2.0 GPA. Completion of a B.S. in biology requires 127 credit hours. Any deficiencies in this preparation can be made up by taking Biology L100 and Chemistry C101/C121 along with a developmental math course.

COURSEWORK

- Introduction to Biological Sciences - BIOL L101
- Introduction to Biological Sciences II-BIOL L102
- Molecular Biology - BIOL L211
- Genetics - BIOL L311
- Upper level (300-400) courses totaling 18 credit hours for the B.A. and 25 credit hours for the B.S.
- Students must complete at least two additional upper-level labs for the B.A. and four for the B.S.

A minimum of one upper level course must be taken in each of the areas below:

- Molecular and Cellular Biology
- Genetics, Development, Evolutionary Biology
- Ecology, Physiology, and Organismal Biology

For both the B.A. and B.S. in biology, a series of chemistry courses should be taken concurrently with introductory biology courses. For the B.S. in biology, a second chemistry series, physics, calculus, statistics and computer science are required, most of which are also required for graduate and professional school.

In addition to the listed courses, the student is responsible for fulfilling the general requirements of the bachelor's degree as established by the College of Arts and Sciences.

Students should consult with the department for additional information concerning prerequisites, course content and academic counseling.

PROGRAM HIGHLIGHTS

Many of our faculty have adjunct appointments at the Indiana University School of Medicine - Northwest, located on campus, and also maintain collaborations at other research institutions within the greater metropolitan area. Students on a pre-medical academic track have the added advantage of the proximity of the IU School of Medicine-Northwest.

Students have a unique opportunity to participate in the International Human Cadaver Prosection Program, a three-day hands-on anatomy workshop which allows non-physician and nonmedical student volunteers to become active participants in a medical lab by preparing the body donors for the fall gross anatomy class. For those on academic tracks closely aligned with environmental science, the campus boasts an 11-acre prairie and wetland preserve adjacent to campus and Indiana Dunes National Lakeshore nearby, providing ample opportunities for field work.

WHAT CAN I DO WITH A B.A. IN BIOLOGY?

The program accommodates students seeking pre-professional training in the medical sciences (pre-medical, pre-dental, and allied health sciences), those pursuing occupations in environmental issues and field work, forensics, biotechnology and the pharmaceutical industry and for students intending to continue with graduate studies.

HANDS-ON LEARNING

The training of an undergraduate student is enhanced by experience in the "discovery side" of the discipline. Thus, students are encouraged to participate in research with faculty mentors. Many students are afforded opportunities to work in such environments as hospitals, medical research laboratories, private companies, national parks and preservation land trusts. This expands the opportunities for our students to engage in research projects with a broad spectrum of life scientists within and outside of Indiana University. The Department offers fully equipped modern teaching and research labs in molecular biology, microbiology, developmental biology, cell biology and physiology. Extensive ecological field research is also readily available.

CLUBS AND ACTIVITIES

The Department of Biology sponsors a chapter of Beta Beta Beta, the national honorary society in biology. Also available to students are the Biology Club and the Pre-professional Studies Club, which offer more avenues for learning and experience related to a student's formal training.

RELATED DEGREE OPTION

- Minor in Biology

FOR MORE INFORMATION

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For pre-professional study and bio-medical science, contact Michael LaPointe, Ph.D., at mslapoin@iun.edu.