

Biological Sciences



UNIVERSITY *of* NEW HAMPSHIRE *at* MANCHESTER

The B.A. in biological sciences offers students a comprehensive academic program, with multidisciplinary options, and preparation for a range of career options and continued graduate and professional education.

Biology is the study of living organisms in both laboratory and field conditions. Students develop an understanding of the living world, its complex interrelationships and the role of human beings within it. Beyond biological principles, concepts and theories, students develop competence in the use of laboratory equipment and instrumentation and the ability to evaluate, synthesize and communicate technical information and ideas. Internship opportunities enhance the practical application and understanding of biological principles and expand students' learning experience and career opportunities.

With the program's flexible design, students can combine a study of biology with other programs and disciplines. Students can complete a major in biology while taking required education courses to prepare for the 5-year MAT or M.Ed. and state certification in secondary science education.

Students will be prepared for professional graduate education in the fields of medicine, dentistry, veterinary science, physician assistant, laboratory medicine, nursing, pharmacology, physical therapy and other programs. Employment opportunities include business; education; food, water, wastewater, industrial and clinical laboratories; biotechnology; environmental research and monitoring; and animal behavior.

A collaborative agreement between the University of New Hampshire at Manchester and the Massachusetts College of Pharmacy and Health Sciences (Manchester campus) allows students to participate in two joint programs. Students who have completed a bachelor of arts or science degree at the University of New Hampshire at Manchester are able to transfer to the Massachusetts College of Pharmacy and Health Sciences in Manchester to complete the requirements of a 24-month baccalaureate Master of Physician Assistant Studies.

Students may complete three years of study at the University of New Hampshire at Manchester in the Pre-Pharmacy Program and then transfer to the Massachusetts College of Pharmacy and Health Sciences (Manchester campus) to complete the requirements of the accelerated Doctor of Pharmacy degree while earning a bachelor of arts or sciences from the University of New Hampshire.

“What most attracted me to the program was the chance to choose my own concentration in the biology major. This made the program a great choice, especially for a student that is thinking of further or higher education. I will be able to customize my major to fulfill both current and future requirements....”

Nour Ali
Student

For more information about the B.A. in biological sciences:

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“As a transfer student to UNH Manchester, I have been impressed with the environment, the smaller class sizes and the finest teaching I have ever had. I am happy that the B.A. in biology is at UNH Manchester. It is a perfect fit for me and will help me achieve my long term goals.”

Jason Linder
Student

Program Requirements

Students must complete a minimum of 128 credits and satisfy the University's general education and foreign language requirements. BIOL 413, 414 and CHEM 403, 404 may be used to satisfy the Group 3 general education requirement. PSYC 402 may be used to satisfy the Group 2 general education requirement; however, students interested in graduate or professional programs would be encouraged to take MATH 425, Calculus I to satisfy the group 2 requirement. The UNH Manchester B.A. in biological sciences program is structured with three levels of coursework.

Biology Core Curriculum (9 courses, 37 credits)

The biology core curriculum consists of five required biology courses:

- BIOL 413-414, Principles of Biology I and II
- MICR 503, General Microbiology
- BIOL 541, General Ecology
- BIOL 604, Principles of Genetics

Two required chemistry courses:

- CHEM 403-404, General Chemistry I and II

One course in mathematics:

- MATH 418, Analysis and Application of Functions,
- MATH 425, Calculus I

One course in statistics

- PSYC 402, Statistics in Psychology (other statistics courses such as BIOL 528 or ADM 430 may be used to satisfy this requirement).

Depending on their specific academic and career goals, and in consultation with their advisor, students may elect to take additional supporting science courses such as CHEM 545/546, Organic Chemistry with lab (one semester); CHEM 547/549 - 548/550, Organic Chemistry I and II with lab (two semesters); BCHM 658/659, Biochemistry with lab; MATH 426 Calculus II; and Physics 407-408, General Physics I and II. These courses are often required for admission to medical, professional and other graduate programs.

Self-designed Concentration in Biology (4 courses, 16 credits)

Students will select, in consultation with their advisor, four biology courses at the 600-700 level to be taken at UNH Manchester or UNH Durham.

Capstone Experience

The capstone experience will be fulfilled by taking two one-credit courses, Senior Studies, during both semesters of the senior year and a capstone experience, such as BSCI 600, Field Experience, Internship in Biology, or Independent Study. Senior Studies will meet weekly during both semesters of the senior year in a seminar format to share information about students' research or independent study activities, listen to presentations on timely issues in biology and to support and provide training in poster production, Power Point and other methods of oral presentation and scientific writing as they prepare to present the results of their capstone activities at the Undergraduate Research Conference or other venues.

In addition, all students will take elective courses to fulfill the 128-credit requirement for a B.A. degree. These elective courses could fulfill the requirements for a major or minor in another program or they could fulfill a self-designed interdisciplinary concentration. They could include some of the supporting science courses listed above. These courses would be selected in consultation with their advisor and the appropriate faculty advisor in another program.

Note: Pre-medical and pre-dental students should enroll in CHEM 651-652 and 653-654 at Durham. These courses may substitute for CHEM 545/546 and BCHM 658-659. In addition, they should also enroll in MATH 426.

Discover

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