

Biology Department

Bates Biology

Our Mission: is to provide an outstanding, comprehensive undergraduate program in the life sciences within the context of a liberal arts education.

We foster a fundamental understanding of the principles that govern living systems and the methods used to study these systems. We prepare students for future careers in the life sciences, to understand biological issues and to use scientific thinking in their future lives. We offer classes and laboratory sessions that include inquiry-based studies, and we emphasize scientific thought, not just the acquisition of information. Our program promotes the development of problem-solving, writing, quantitative, and critical-thinking skills; it also nurtures independent research, collaborative effort, and self-expression. We value cross disciplinary approaches in the pursuit of knowledge and skills.

Faculty accessibility to students is a priority, and we offer small classes, labs, and research experiences that promote student and faculty interaction. We seek to increase the participation of under-represented segments of the population in our programs and to support the high achievement of all students. To sustain these values and goals we recruit diverse faculty and staff with research and teaching strengths that complement our program and enrich our vision.

Contact the Biology Department

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Since 1855, Bates College has been dedicated to the emancipating potential of the liberal arts. Bates educates the whole person through creative and rigorous scholarship in a collaborative residential community. With ardor and devotion -- *Amore ac Studio* -- we engage the transformative power of our differences, cultivating intellectual discovery and informed civic action.

Preparing leaders sustained by a love of learning and a commitment to responsible stewardship of the wider world, Bates is a college for coming times.

rev. 8/15



Bates



Bio190 students investigate structure and function of winged seeds

Our Curriculum

We offer introductory courses – open to any Bates College student – that explore the fascinating living world from DNA to ecosystems.

Three core courses for majors build essential skills and utilize collaborative investigative laboratory studies and are based on methodology used in scientific research.

Upper-level electives and independent study opportunities span all sub-disciplines and all levels of biological organization, and provide avenues for the pursuit of the specialized interests of majors and students in interdisciplinary programs.

Upper-level students have opportunities to serve as laboratory teaching assistants, peer writing assistants, and peer assisted learning group leaders.

We value independent intellectual growth, and a required two-course senior capstone experience can be fulfilled using a variety of options: thesis, seminar and research, senior seminar, approved off-campus research and service learning experiences.

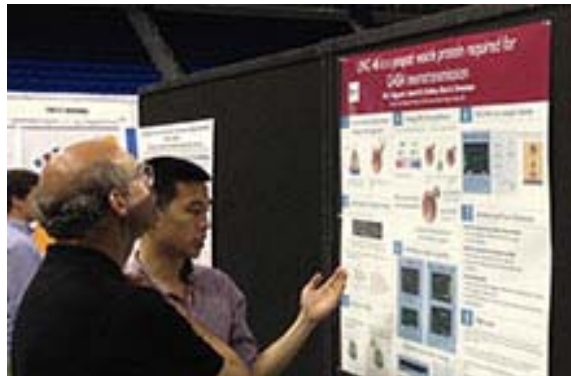
Many Biology majors enrich their Bates experience with off-campus study or study abroad, including internship opportunities at Jackson Laboratories and Sloan-Kettering.



s32, Short Term in the Galapagos; observation of a displaying male frigate bird

Biology Major Plan of Study

- 2 semesters of general chemistry
- either 1 semester of organic chemistry or 1 of biostatistics
- 10 biology courses
 - 3 course core sequence starting winter semester of first year
 - 7 electives, including 2 or 3 semesters of capstone experience
- A satisfactory performance on the departmental comprehensive exam.



Answering questions from Dr. Martin Chalfie at the International *C. elegans* meeting at UCLA

Undergraduate Research

We offer opportunities during Short Term and summer with valuable experience and the chance for engrossing exploration of innovative scholarly research.

Student researchers often present their work at national and international scientific meetings.

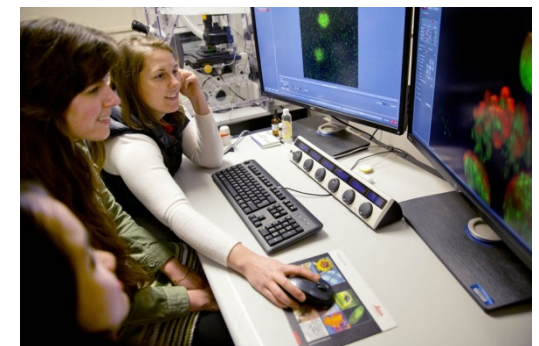


Bio337 students test lung capacity

The Biology Department

Is comprised of nine faculty, two visiting faculty, two lecturers, and six academic and technical support staff members. The faculty teach a wide range of courses and support undergraduate research opportunities including Honors thesis, thesis, and independent study.

The support staff includes two full time Assistants in Instruction (lab instructors), half-time contributions from AIs in the Biological Chemistry and Neurobiology programs, a biology technician who manages the stockroom and departmental accounting, and a technician who oversees laboratory and building-wide safety, research animal care, and greenhouse facilities.



The new Leica SP8 confocal microscope can create 3-D images of the inside of transparent specimens.