

Biology

at Centre College

The biology experience, taught in the context of a liberal arts education at a small, selective college, is unique in many ways. The opportunities for off-campus biological study include such exotic locales as the Bahamas, Puerto Rico, and US Virgin Islands. The faculty of the biology program place a strong emphasis on collaborative research with undergraduates, and many opportunities for internship experiences in biology are available.

The Biology Major

The discipline of biology can be pursued on a variety of levels, from the study of the structure of molecules to investigations of the behavior of ecosystems. The Centre biology major is designed to introduce the student to the breadth of application of biological sciences in our world. Students planning to major in biology will prepare for the major with appropriate courses in math, chemistry, and physics. Upon declaration of the major, students will complete a series of courses designed to familiarize them with the breadth of the discipline. This will include courses in microbiology, cell biology, plant and animal biology, and ecology. In addition to the traditional biology major, students can pursue majors or minors in programs such as biochemistry and molecular biology, environmental studies, and psychobiology that focus on the interface of biology with related disciplines.

Internships and Collaborative Research

The biology program offers both internship and collaborative research opportunities during the academic year as well as in the summer months. The biology faculty actively engages Centre students in a wide range of collaborative research projects; in addition, many biology majors are also successful at gaining acceptance into prestigious summer research programs in outstanding university labs throughout the country. Students pursuing independent research projects often present the results of their research at state and national meetings of professional scientific societies. The biology program also works closely with Career Services to sponsor a variety of internships which provide our

majors with valuable “real-life” experiences relevant to careers in biology.

The Facilities

Centre College has one of the best-equipped facilities for learning biology of any college its size in the country. Centre was fortunate to have received major funding from the Kresge Foundation that has facilitated a major upgrade and improvement of science instrumentation. Examples include the microscopy laboratories providing students with access to state-of-the-art instrumentation for tissue culture, fluorescence microscopy, digital image analysis and scanning-electron microscopy; an aquatic research laboratory that enables intensive investigations of both marine and freshwater organisms; and the greenhouse and botany laboratory for plant-related studies. The nearby Central Kentucky Wildlife Refuge is used regularly by classes, and is also a good place for independent study projects, hiking, and contemplation.

The college has recently initiated a construction project that will lead to a major expansion of both laboratory and research space available to the biology program in Young Hall.

Special Features

What makes the biology experience unique at Centre? First, there is the biology faculty itself—as enthusiastically committed to their respective disciplines as they are to the philosophy of a liberal arts education. The small class sizes here mean individual attention from the professors.



Whitney Sears
Centre Class of 2010
Biology Major

“For those interested in lab or field research, Centre offers students many opportunities to do hands-on work in areas that interest them. I’ve had the opportunity to do ecological surveys in the Bahamas and marine biology research in the Virgin Islands.”

They are also committed to “hands-on” training in biology through laboratory and field experiences offered both in conjunction with the curriculum and also through research collaboration. Students routinely collaborate with biology faculty on independent research projects.

Off-Campus Opportunities

The biology faculty members at Centre are especially committed to bringing science education into the field through off-campus opportunities. Centre students have engaged in primate research in Barbados, observed volcanoes in New Zealand, and studied coral reefs in the Bahamas and the US Virgin Islands. CentreTerm makes these intensive field experiences possible with minimum interruption to the normal sequence of courses required of the biology major. In addition, many biology majors study abroad in England, France, and Mexico.

What can you do with a biology degree?

The varied disciplines of biology require such intensive training that some post-graduate education is usually necessary for a career as a biologist. The undergraduate experience in biology at Centre is designed to provide the best possible introduction to the breadth and depth of contemporary biology. Many graduates continue their studies in the top graduate programs in the country.

Biologists find employment as teachers and researchers as well as in the private and government sectors. The biology major is excellent preparation for medical, dental, or veterinary school. The qualifications of our graduates are reflected by the high number who gain admission to these programs.

The Faculty

STEVE ASMUS (B.S., Cleveland State University; Ph.D., University of Michigan) teaches introductory biology, introduction to cell and molecular biology, cell biology, developmental biology, and histology.

CHRISTINE BARTON (B.A., University of Vermont; M.S., Ph.D., Oregon State University) teaches introductory biology, human biology, freshwater biology, and evolutionary genetics.

MICHAEL BARTON (B.A., University of California-Los Angeles; M.A., California State University-Fullerton; Ph.D., Oregon State University) teaches introductory biology, marine biology, invertebrate and vertebrate biology, and comparative physiology.

STEPHANIE DEW (B.A., Centre College; Ph.D., Vanderbilt University) teaches introductory biology,

introduction to cell and molecular biology, macromolecules, metabolism, and immunology.

STEPHANIE FABRITIUS (B.S., Pepperdine University; Ph.D., Purdue University) teaches an upper level elective course and serves as the Vice President of Academic Affairs and Dean of the College.

RAY HAMMOND (B.A., Centre College; Ph.D., University of Kentucky) continues to teach introductory biology in his current position as Emeritus Professor of Biology.

JEFFREY A. JANOVETZ (B.S., University of Illinois; M.S., Washington State University; M.S., Ph.D., University of Chicago) teaches human biology, paleontology, vertebrate diversity, and comparative physiology.

ANNE LUBBERS (B.S., University of Wisconsin-Green Bay; Ph.D., Duke University) teaches introductory biology, plant biology, ecology, environmental studies, and plant-herbivore interactions.

MARGARET RICHEY (B.S., M.S., Ph.D., University of Kentucky) teaches introductory biology, introduction to cell and molecular biology, microbiology, molecular genetics, and biology of viruses.

ROSE-MARIE ROESSLER (B.S., University of Kentucky; M.S., Eastern Kentucky University) is the coordinator and instructor for laboratories in introductory biology and introduction to cell and molecular biology.

PAUL SIKKEL (B.A., University of California-San Diego; M.S., Ph.D., Oregon State University) teaches ecology, introductory and vertebrate biology, and marine science.

ROB ZIEMBA (B.A., Boston University; Ph.D., Arizona State University) teaches introductory biology, ecology, evolutionary genetics, conservation biology, entomology, and natural science.



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Biology Web page

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