The Department of Biology offers a number of degree programs that will prepare you for careers in biological, environmental, medical, and clinical fields. The curriculum for all of these programs contains the following core courses that introduce you to the unifying principles of biology: general biology, cell physiology, genetics, and two of three courses in botany, microbiology, and zoology.

According to your career or graduate school objectives, you can choose from a variety of upper-division biology courses. These elective courses offer you laboratory and field experiences in various specialized areas of biology.

**Career Opportunities**

Those graduating with one of the degrees offered by the Department of Biology are qualified to enter the areas of education, environmental consulting, health care, law, pharmaceuticals, and publishing, as well as industrial, microbiological, biomedical, and biotechnology research. An undergraduate degree in biology also prepares you to do laboratory work or graduate study in molecular aspects of biology, including biotechnology and forensic DNA analysis. This degree also will prepare you for entry into professional schools of dentistry, medicine, osteopathy, physician assistant, physical therapy, and veterinary medicine. An undergraduate degree in biology also prepares you to enter professional schools of dentistry, medicine, osteopathy, physician assistant, physical therapy, and veterinary medicine. An undergraduate degree in biology also prepares you to enter professional schools of dentistry, medicine, osteopathy, physician assistant, physical therapy, and veterinary medicine.

Graduates of the department have found employment at the following companies:

- Endo
- E.I. DuPont
- ERM, Inc.
- Lankenau Hospital
- Merck and Company
- Smith Kline Beecham
- Weston Solutions
- Wyeth Ayerst

Graduates of the department have been accepted into the following graduate/professional schools:

- Arcadia University
- North Carolina State University
- Pennsylvania College of Osteopathic Medicine
- The Pennsylvania State University
- Princeton University
- Rutgers – The State University
- Temple University
- Thomas Jefferson University
- Tufts University
- University of California, Davis
- University of Maryland
- University of Massachusetts
- University of New Hampshire
- University of North Carolina
- University of Pennsylvania
- University of Pennsylvania Veterinary School
- University of Southern California
- University of Virginia
- Washington State University
- Yale University

**Undergraduate Degrees**

**Bachelor of Arts and Bachelor of Science in Biology.** Both degrees prepare you for a variety of careers or entry into graduate or professional schools, including physician assistant and physical therapy programs. You also can pursue further training toward careers in business, law, and writing.

**Bachelor of Science in Biology – Cell and Molecular Concentration.** Graduating from this program will prepare you for professional schools of dentistry, medicine, osteopathy, physician assistant, physical therapy, and veterinary medicine. Graduate study in other related areas is also an option for those completing the baccalaureate program.

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**Bachelor of Science in Biology – Ecology Concentration.** This degree prepares you to work for private, nonprofit, or government groups that study the environment. It also provides you with the preparation needed to work in parks, conservation areas, and wildlife management fields.

**Bachelor of Science in Biology – Marine Biology Concentration.** This degree provides students with a strong background in marine biology, ranging from marine organisms to biotechnology and oceanography. It also provides students with preparation in marine biology and oceanography.

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- University of Pennsylvania Veterinary School
- University of Southern California
- University of Virginia
- Washington State University
- Yale University

Learn More
Bachelor of Science in Biology – Microbiology Concentration. This degree prepares you to work in hospitals, clinics, laboratories, and industries that deal with microbiology.

Bachelor of Science in Education – Biology. This degree leads to a Pennsylvania Instructional I Certificate and prepares you to teach biology in public and private secondary schools. You also will be prepared to work for private or government groups that provide public science education programs, such as wildlife sanctuaries, zoos, and botanical gardens, or to pursue graduate study in biology or education. This degree requires 126 credits for graduation, as opposed to the other bachelor’s degrees in biology that require 120 credits.

Examples of Upper-Division Biology Courses
Animal Development
Animal Histology
Cell and Molecular Biology
Comparative Vertebrate Anatomy
Comparative Vertebrate Physiology
Conservation Biology
Epidemiology
Freshwater Écologie
Functional Animal Morphology
Immunology
Marine Biology
Marine Botany
Microbial Physiology
Molecular Genetics
Plant Evolution
Plant Physiology
Population Biology
Recombinant DNA Technology
Systematic Botany
Virology

Minor
The minor in biology is offered so you can pursue an interdisciplinary program of study that meets unique or specific career objectives.

Facilities
The Department of Biology is located in Schmucker Science Center North and the University’s newest science facility, Merion Science Center. Merion contains five teaching laboratories for biology: a cell physiology laboratory, a systemic physiology laboratory, an anatomy laboratory, an immunology/virology laboratory, and a tissue culture laboratory. In addition, the department has a P3-level tissue culture facility, as well as appropriate instrumentation for ultra centrifugation, radioisotope counting, and standard cellular and molecular biology techniques.

Other equipment available for your use as a student include specialized microscopes for tissue/cell visualization, instrumentation for DNA sequencing and analysis, and numerous environmental incubators.

Special Study Opportunities
You are encouraged to participate in laboratory and field independent research projects. Internships are available for seniors in local businesses, laboratories, and field stations.

Faculty
You can obtain a complete listing of faculty and their academic qualifications for this program from the department’s web page at darwin.wcupa.edu or from the contact persons listed below.

Related Student Activities
The Darlington Biological Society

For More Information
Dr. Jack Waer, Chairperson or Dr. Giovanni Casotti, Assistant Chairperson
Department of Biology
175 Schmucker North
West Chester University
West Chester, PA 19383
610–436–2538
Web page: http://bio.wcupa.edu/biology/index.php
Undergraduate Catalog: http://www.wcupa.edu/_information/offical.documents/undergrad.catalog/

Information on Admission
Office of Admissions
Emil H. Messikomer Hall, 100 West Rosedale Ave.
West Chester University, West Chester, PA 19383
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Facebook: www.facebook.com/wcupa