DEPARTMENT OF BIOLOGY

(See also Pre-Medical Program (http://catalog.wcupa.edu/undergraduate/sciences-mathematics/pre-medical-program/))

175 The Science Complex North
610-436-2538
Department of Biology (http://www.wcupa.edu/biology/)

Jennifer Chandler (jchandler@wcupa.edu), Chairperson
Giovanni Casotti (gcasotti@wcupa.edu), Assistant Chairperson

The major in biology centers on a core of courses that emphasizes broad unifying principles. Available electives provide enriching experiences in many areas of biology.

The Department of Biology offers six concentrations within the B.S. degree:

• The B.S. in Biology - Integrative Concentration can be individually tailored to provide the skills that students need to achieve their career goals. This program also provides the basic preparation needed for entry into graduate or professional schools, including physical therapy programs.

• The B.S. in Biology - Cell and Molecular Concentration offers the student a strong background in both biology and chemistry. Emphasis on lab-oriented courses prepares the student to pursue a career in laboratory research in cell and molecular biology at industrial, medical, academic, and government facilities. This program also prepares the student for admission to medical, dental, veterinary, graduate, and professional schools.

• The B.S. in Biology - Ecology and Conservation Concentration provides an opportunity for interested students to obtain a strong background in field biology and the conservation of natural systems. The required core curriculum and concentration electives provide opportunities for careers as biologists in state and federal environmental agencies, industry, and environmental consulting firms, as well as graduate work in ecology and conservation. Internships are strongly recommended as part of the program. Course work emphasizes skills obtained in biology, chemistry, and mathematics. Additional course work from other departments may be recommended to fulfill particular career objectives.

• The B.S. in Biology - Marine Science Concentration provides the opportunity for interested students to obtain a strong educational background in marine biology and other topics in a field that stretches from marine organisms to biotechnology and even oceanography interests from the coastal waters to deep oceans. The required core curriculum and electives will allow students the opportunity to draw on educational resources at West Chester University and marine field stations, such as the Wallops Island Marine Science Consortium in Virginia. Course work emphasizes techniques in biological sciences, oceanography, chemistry, physics, and mathematics. Field and laboratory courses form a strong foundation of this program, and students are encouraged to engage in directed research projects or internships.

• The B.S. in Biology - Medical Laboratory Science Concentration offers students the opportunity to enter the field of laboratory medicine with emphasis on the techniques and instrumentation used to evaluate disease processes. This concentration allows students to complete the necessary general education and departmental requirements in three years. The fourth year is spent in a hospital internship training program at one of the several affiliated hospitals, and students receive 26 credits for the internship year (BIO 407 and BIO 408, Hospital Internship in Medical Laboratory Science). To qualify for the internship, students must have a 2.75 GPA and be accepted by an accredited hospital medical technology program. Students completing the internship will receive a B.S. in Biology - Medical Laboratory Science Concentration and the training necessary to take the national certification exam. Affiliated hospitals include Pennsylvania Hospital, Lancaster General Hospital, and St. Christopher’s Hospital for Children.

• The B.S. in Biology - Microbiology Concentration prepares students for careers in research laboratories, industrial and academic research, and government service in the areas of bacteriology, immunology, virology, mycology, microbial ecology, and parasitology. The program provides extensive laboratory experience with the techniques that are most useful and important to modern microbiological science. This program also provides the basic preparation needed for entry into graduate or professional schools.

Programs

Majors

• B.S. in Biology - Cell and Molecular Concentration (http://catalog.wcupa.edu/undergraduate/sciences-mathematics/biology/biology-bs-cell-molecular-concentration/)

• B.S. in Biology - Ecology and Conservation Concentration (http://catalog.wcupa.edu/undergraduate/sciences-mathematics/biology/biology-bs-ecology-conservation-concentration/)

• B.S. in Biology - Integrative Biology Concentration (http://catalog.wcupa.edu/undergraduate/sciences-mathematics/biology/biology-bs-integrative-concentration/)

• B.S. in Biology - Marine Science Concentration (http://catalog.wcupa.edu/undergraduate/sciences-mathematics/biology/biology-bs-marine-science-concentration/)

• B.S. in Biology - Medical Laboratory Science Concentration (http://catalog.wcupa.edu/undergraduate/sciences-mathematics/biology/biology-bs-medical-laboratory-science-concentration/)

• B.S. in Biology - Microbiology Concentration (http://catalog.wcupa.edu/undergraduate/sciences-mathematics/biology/biology-bs-microbiology-concentration/)

Minor

• Biology (http://catalog.wcupa.edu/undergraduate/sciences-mathematics/biology/biology-minor/)

Graduate Opportunities

See the graduate catalog for more information on the Biology programs. (http://catalog.wcupa.edu/graduate/sciences-mathematics/biology/)

Policies

• See undergraduate admissions information. (http://catalog.wcupa.edu/general-information/admissions-enrollment/undergraduate-admissions/)

• See academic policies. (http://catalog.wcupa.edu/undergraduate/academic-policies-procedures/)

All undergraduate students are held to the academic policies and procedures outlined in the undergraduate catalog. Students are encouraged to review departmental handbooks for program tips, suggested course sequences, and explanations of procedures. When applicable, additional policies for specific department programs may be listed below.
Advanced Placement Policy
A score of three or better on the Biology Advanced Placement Exam will transfer as credit for BIO 110, General Biology.

Accelerated Program Policy
Refer to the Accelerated Programs page (http://catalog.wcupa.edu/undergraduate/accelerated-programs/) for more information.

Admission Requirements for the Accelerated B.S. in Biology - Integrative Concentration to the M.S. in Biology
To be considered for the accelerated program and enroll in BIO 608 (Thesis Research I), students must have attained (completed) 75 credits with a minimum of 18 biology credits. Students must have a minimum cumulative GPA of 3.00 including a minimum GPA of 3.00 for biology courses. BIO 608 requires departmental permission to enroll; students must arrange a committee meeting prior to enrolling in BIO 608 (e.g., during their third year). The accelerated program in biology is only open to thesis students. Any student wishing to switch out of the thesis option will be required to complete all requirements of the B.S. degree. Once admitted to the graduate program, graduate policies apply, including minimum GPA (3.00).

Faculty
Professors
Sharon Began (sbegan@wcupa.edu) (1992)
B.S., Kutztown University; M.S., East Tennessee State University; Ph.D., Southern Illinois University at Carbondale
Stefanie Anne Boettger (sboettger@wcupa.edu) (2008)
B.S., Aberdeen University (Scotland); Ph.D., University of Alabama at Birmingham
Giovanni Casotti (gcasotti@wcupa.edu) (1996)
Assistant Chairperson, Biology
B.S., Honors, Murdoch University (Australia)
Frank E. Fish (ffish@wcupa.edu) (1980)
B.A., State University of New York at Oswego; M.S., Ph.D., Michigan State University
Oné R. Pagán (opagan@wcupa.edu) (2005)
B.S., M.S., University of Puerto Rico; Ph.D., Cornell University
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B.A., Hartwick College; M.S., University of Maine; Ph.D., University of Idaho/Centro Agronomico Tropical de Investigacion y Ensenanza
Harry Tiebout (htiebout@wcupa.edu) (1992)
B.A., University of Illinois; Ph.D., University of Florida
Gregory Turner (gturner@wcupa.edu) (2004)
Graduate Coordinator, Biology
B.S., Virginia Commonwealth University; M.A., Hunter College; M.Ed., Columbia University; Ph.D., Fordham University

Associate Professors
Teresa Donze-Reiner (tdonze@wcupa.edu) (2015)
Director, Pre-Medical Program
Graduate Coordinator, Pre-Medical Program
B.S., University of Nebraska; Ph.D., Molecular Biology and Microbiology University of Nebraska-Lincoln
Jennifer L. Maresh (jmaresh@wcupa.edu) (2016)
B.S., West Chester University; M.S., Duke University; Ph.D., University of California, Santa Cruz
John M. Pisciotta (jpisciotta@wcupa.edu) (2012)
B.A., Eckerd College; M.S., University of South Florida; Ph.D., Johns Hopkins University

Assistant Professors
Sean W Buskirk (sbuskirk@wcupa.edu) (2019)
B.S., Pennsylvania State University; Ph.D., University of Georgia
Benjamin S Chambers (bchambers@wcupa.edu) (2020)
B.S., The Pennsylvania State University; Ph.D., University of Pennsylvania
Jennifer Chandler (jchandler@wcupa.edu) (2017)
Chairperson, Biology
B.A., Transylvania University; B.S., Northern Kentucky University; Ph.D., West Virginia University
Megan Fork (mfork@wcupa.edu) (2021)
B.S., University of Wisconsin; M.S., Florida International University; Ph.D., Duke University
Erin Gestl (egestl@wcupa.edu) (2007)
B.S., Ph.D., Pennsylvania State University
Michael V Rosario (mrosario@wcupa.edu) (2018)
B.A., University of California, Berkeley; M.S., University of Massachusetts, Amherst; Ph.D., Duke University
Jessica N. Sowa (jsowa@wcupa.edu) (2019)
B.S., University of Rochester; Ph.D., Johns Hopkins University

Courses

Jessica Sullivan-Brown (jsullivan@wcupa.edu) 2014
B.S., James Madison University; Ph.D., Princeton University

2023-2024 CATALOG - DEPARTMENT OF BIOLOGY