

DEPARTMENT OF BIOLOGY

Dr. Michael Smith, Chair

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Website: <http://www.wku.edu/biology> (<http://www.wku.edu/biology/>)

Students interested in biology are presented with a variety of dynamic educational opportunities. These opportunities, involving diverse biological subdisciplines from molecules to ecosystems, challenge the students of biology in one of the most exciting eras of human history. The Department of Biology is dedicated to producing well-informed, scientifically literate graduates capable of applying the knowledge and skills acquired to ensure professional success and lifelong learning.

Undergraduate students collaborate with biology faculty on an array of interesting research topics. By applying what they have learned from time in the classroom to their involvement with research projects, students can more smoothly make the transition to professional and graduate programs and the work force. Modern classrooms and research laboratories, and the Potter-Nicely Outdoor Education Center and Green River Preserve provide outstanding settings for student research. The Biology Department is also proud to house the Biotechnology Center, Center for Biodiversity Studies, and Applied Center for Data Science. The centers are integral components of the WKU Applied Research and Technology Program, a state-funded program of distinction.

When planning a program of study in the Department of Biology each student must be aware of the University's academic requirements and regulations contained in this catalog in the section, "Academic Information." Specific attention should be given to the subsections entitled:

1. Academic Programs
2. Colonnade Requirements
3. Academic Requirements and Regulations

Students should be aware that some academic programs may require additional scholastic requirements and standards not specified in the catalog. To obtain a copy of these requirements, students should contact the department chair. We offer four options for a B.S. degree: A Biology major without a minor (reference number 525), a Biology major with a minor (reference number 617), a Biochemistry major (reference number 519), a Molecular Biotechnology major (reference number 714), and a Medical Laboratory Science major (reference number 5004). Each is described below along with our minor in Biology, Joint Undergraduate-Master's Program (JUMP), Teaching Certifications, and other Special Programs.

Secondary Teaching Certification in Biology

Students who wish to be certified to teach high school biology must complete both the major in Biology (reference number 525 or 617) and the major in Science and Mathematics Education (reference number 774), offered in the School of Teacher Education. Interested students should contact the SKyTeach Office, Kelly Thompson Hall 1011A, 270-745-3900.

Middle Grades Science Certification

Students who wish to teach middle school science must complete both the major in Middle School Science Education (reference number 734),

offered by Ogden College and SKyTeach, and the major in Science and Mathematics Education (reference number 774), offered in the School of Teacher Education. Interested students should contact the SKyTeach Office, Kelly Thompson Hall 1011A, 270-745-3900.

Other Department Programs

Several other biologically oriented, specialized programs are available such as biophysics and environmental science, as well as several pre-professional programs. Specific details of these programs are listed under Pre-Professional and Interdisciplinary Programs.

Degrees

- Biochemistry, Bachelor of Science (519) (<http://catalog.wku.edu/undergraduate/science-engineering/biochemistry-bs/>)
- Biology, Bachelor of Science (525) (<http://catalog.wku.edu/undergraduate/science-engineering/biology/biology-bs/>)
- Biology, Bachelor of Science (617) (<http://catalog.wku.edu/undergraduate/science-engineering/biology/biology-bs-617/>)
- Medical Laboratory Science, Bachelor of Science (5004) (<http://catalog.wku.edu/undergraduate/science-engineering/biology/medical-laboratory-science-bs/>)
- Molecular Biotechnology, Bachelor of Science (738) (<http://catalog.wku.edu/undergraduate/science-engineering/biology/molecular-biotechnology-bs/>)

Minor

- Biology, Minor (326) (<http://catalog.wku.edu/undergraduate/science-engineering/biology/biology-minor/>)

Professor

Carl W. Dick PhD (Zoology), Texas Tech University, 2005
 Robert U. Fischer PhD, University of South Carolina - Columbia, 1994
 Scott A. Grubbs PhD (Biological Sciences, Ecology and Evolution), University of Pitts Pittsburgh Camp, 1997
 Stephen H. Huskey PhD (Biological Sciences), Florida Institute Technology, 2003
 Jarrett R. Johnson PhD (Biology), University of Missouri-Columbia, 2005
 Rodney A. King PhD (Microbiology and Immunology), Virginia Commonwealth University, 1993
 Douglas McElroy PhD (Zoology), University of Maine - Orono, 1992
 Albert J. Meier PhD (Zoology), University of Georgia, 1995
 Thomas K. Philips PhD (Entomology), The Ohio State University Main Campus, 1997
 Bruce A. Schulte PhD (Environmental and Forest Biology), SUNY Col Envrmntl Sci-Forestry, 1993
 Michael E. Smith PhD (Marine Science), University of Texas at Austin, 2001
 Ajay Srivastava PhD (Molecular Biology and Genetics), University of Alberta, 2003
 Michael K. Stokes PhD (Biology, Systematics and Ecology), University of Kansas Main Campus, 1994

Associate Professor

Noah T. Ashley PhD (Zoology), University of Washington, 2004
 Chandranth Emani PhD (Science), Osmania University, 1997
 Philip W. Lienesch PhD (Zoology), University of Oklahoma Norman, 1997

Assistant Professor

Simran Banga PhD (Biological Sciences), Purdue University Main Campus, 2009

Hilary R. Katz PhD (Integrative Biology), University of Chicago, 2018
Joseph R. Marquardt PhD (Molecular Genetics), The Ohio State University
Main Campus, 2017

Pedagogical Associate Professor

Kerrie L. McDaniel PhD (Plant Biology), Southern Illinois University
Carbondale, 1997
Natalie J. Mountjoy PhD (Zoology), Southern Illinois University, 2014

Instructor II

Michael W. Killen PhD (Microbiology), University of Kentucky, 2011

Senior Instructor

Nilesh C. Sharma PhD (Science/Botany), Birhar University-India, 1992