

# DEPARTMENT OF BIOLOGY

<http://www.bio.tamu.edu> (<http://www.bio.tamu.edu/>)

Head: A. Keene

## Resources for Graduate Study

The Department of Biology offers graduate programs designed to prepare students for careers in academic institutions, government agencies and industry. The Biological Sciences Complex is centrally located on the campus of Texas A&M University. Graduate research is emphasized in over 50 laboratories that contain modern and sophisticated instrumentation for cellular, molecular, organismal and ecological studies. These laboratories provide opportunities for a broad spectrum of research specializations. The Microscopy Imaging Center, animal care facilities and a state-of-the-art DNA sequencing laboratory are among the many facilities housed in the Biological Sciences Complex.

The Department of Biology faculty has research interests that interface with faculty in agriculture and life sciences, geosciences, medicine and veterinary medicine. Biology faculty participate in interdisciplinary programs in biological clocks, filamentous fungi, genetics, genomics, neuroscience and plant sciences. Cooperation is encouraged to broaden the research experience of graduate students.

## Areas of Specialization in Graduate Research

PhD and MS degrees are offered in Biology, and PhD and MS degrees are offered in Microbiology. General areas of research interests within these degrees include:

### Cellular and Developmental Biology

Plant protoplast and tissue culture, transformation and regeneration; molecular biology and genetics of development and differentiation; nuclear organization; developmental neurobiology; cell surface interactions; physiology of photosynthesis.

### Evolutionary Biology

Modern and classical approaches to plant and animal systematics and evolution; genomic and biochemical evolution; cytogenetics.

### Molecular Biology

DNA and RNA isolation, cloning and sequencing; gene isolation, characterization, transfer and expression; bacterial and phage genetics; molecular processes of differentiation and embryogenesis; molecular microbiology and virology; genomics and informatics.

### Organismal Biology

Comparative endocrinology and physiology; neurobiology; invertebrate ecology and ethology; marine biology; biological clocks.

## Entrance Requirements

Coursework taken at the baccalaureate level normally must include mathematics through calculus, statistics, chemistry including organic chemistry, biochemistry, physics, genetics and adequate preparation in a biological science. Any remedial work will be in addition to the semester hours required for the degree. Graduate admissions decisions are based on students' academic record, research experience, letters of recommendation, GRE scores (verbal, quantitative and analytical)

and suitability of students' research interests for programs in the department. For information about admissions, contact the Graduate Advisor, Department of Biology or visit us on the website at <http://www.bio.tamu.edu> (<http://www.bio.tamu.edu/>).

## Language Requirement

The Department of Biology has no foreign language requirement for any graduate degree program.

## Faculty

Alexander, Michael B, Lab Instructor  
Biology  
PHD, Texas A&M University, 2014

Aramayo, Rodolfo A, Associate Professor  
Biology  
PHD, University of Georgia, 1992

Arzan Zarin, Aref, Assistant Professor  
Biology  
PHD, The University of Dublin, 2013

Bell-Pedersen, Deborah, University Distinguished Professor  
Biology  
PHD, State University of New York at Albany, 1991

Blackmon, Heath L, Associate Professor  
Biology  
PHD, University of Texas at Arlington, 2015

Cohn, William B, Instructional Associate Professor  
Biology  
PHD, Texas A&M University, 2000

Criscione, Charles D, Professor  
Biology  
PHD, Oregon State University, 2005

Delmore, Kira, Assistant Professor  
Biology  
PHD, University of British Columbia, 2015

Dulin, Jennifer N, Assistant Professor  
Biology  
PHD, University of Texas Health Science Center, 2012

Erickson, James W, Associate Professor  
Biology  
PHD, University of Wisconsin, Madison, 1989

Farhy, Isabella, Assistant Professor  
Biology  
PHD, Tel Aviv University, 2013

Fletcher, Samantha, Senior Lecturer  
Biology  
PHD, Texas A&M University, 2019

Garcia, Luis R, Professor  
Biology  
PHD, University of Texas, 1996

Gomer, Richard H, University Distinguished Professor  
Biology  
PHD, California Institute of Technology, 1983

Griffing, Lawrence R, Associate Professor  
Biology  
PHD, Stanford University, 1981

Hardin, Paul E, Distinguished Professor  
Biology  
PHD, Indiana University, 1987

Hawkins, Angela K, Senior Lecturer  
Biology  
PHD, Texas A&M University, 2018

Janes, Donna, Instructional Associate Professor  
Biology  
PHD, University of Illinois, 2004

Leboeuf, Brigitte L, Instructional Associate Professor  
Biology  
PHD, Texas A&M University, 2009

Lee, Christopher P, Instructional Associate Professor  
Biology  
PHD, Texas A&M University, 2014

Lockless, Steve W, Research Assistant Professor  
Biology  
PHD, University of Texas at Dallas, 2002  
PHD, University of Texas Southwestern Medical Center, 2002

Mackenzie, Duncan S, Associate Professor Emeritus  
Biology  
PHD, University of California at Berkeley, 1980

McCreedy, Dylan, Assistant Professor  
Biology  
PHD, Washington University, St. Louis, 2013

McKnight, Thomas D, Professor  
Biology  
PHD, University of Georgia, 1983

Menet, Jerome, Associate Professor  
Biology  
PHD, Louis Pasteur University, 2003

Merlin, Christine, Associate Professor  
Biology  
PHD, University Pierre and Marie Curie, 2006

Mitchell, Angela, Assistant Professor  
Biology  
PHD, University of North Carolina at Chapel Hill, 2013

Moyes, Rita J, Instructional Associate Professor Emerita  
Biology  
PHD, Texas A&M University, 1992

Nan, Beiyan, Associate Professor  
Biology  
PHD, Peking University, 2007

Norton, Jerry D, Lab Instructor  
Biology  
PHD, University of Texas, 1994

Paredes-Sabja, Daniel, Associate Professor  
Biology  
PHD, Oregon State University, 2009

Pepper, Alan E, Professor  
Biology  
PHD, University of California at Davis, 1990

Pilling, Darrell, Research Assistant Professor  
Biology  
PHD, University of Birmingham, 1995

Qin, Hongmin, Associate Professor  
Biology  
PHD, Institute of Microbiology, Chinese Academy of Sciences, 1999

Rao, Asha, Instructional Associate Professor  
Biology  
PHD, Texas A&M University, 2002

Riley, Bruce B, Professor  
Biology  
PHD, University of Wisconsin, Madison, 1990

Rosenthal, Gil G, Adjunct Professor  
Biology  
PHD, The University of Texas at Austin, 2000

Roy Sarkar, Tapasree, Assistant Professor  
Biology  
PHD, Purdue University, 2008  
PHD, Purdue University - West Lafayette, 2008

Ryan, Kathryn J, Instructional Associate Professor  
Biology  
PHD, Baylor College of Medicine, 1998

Sachs, Matthew S, Professor  
Biology  
PHD, Massachusetts Institute of Technology, 1986

Scott, Timothy P, Professor  
Biology  
PHD, Texas A&M University, 1996

Siegele, Deborah A, Associate Professor  
Biology  
PHD, University of Wisconsin, Madison, 1989

Smith, James L, Professor  
Biology  
PHD, University of Florida, 2002

Smotherman, Michael S, Professor  
Biology  
PHD, University of California at Los Angeles, 1998

Sorg, Joseph A, Professor  
Biology  
PHD, University of Chicago, 2006

St. Clair, Allison, Senior Lecturer  
Biology  
PHD, Texas A&M University, 2017

Tag, Andrew G, Instructional Associate Professor  
Biology  
PHD, Texas A&M University, 2003

Taylor, Lathrop, Instructional Associate Professor  
Biology  
PHD, Texas A&M University, 1985

Versaw, Wayne K, Professor  
Biology  
PHD, University of Wisconsin, Madison, 1995

Wicksten, Mary K, Professor  
Biology  
PHD, University of Southern California, 1977

Wright, Rachel N, Instructional Assistant Professor  
Biology  
PHD, Texas A&M University, 2011

Zoran, Mark J, Professor  
Biology  
PHD, Iowa State University, 1987

## **Masters**

- Master of Science in Biology (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/arts-and-sciences/biology/ms/>)
- Master of Science in Microbiology (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/arts-and-sciences/biology/microbiology-ms/>)

## **Doctoral**

- Doctor of Philosophy in Biology (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/arts-and-sciences/biology/phd/>)
- Doctor of Philosophy in Microbiology (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/arts-and-sciences/biology/microbiology-phd/>)