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 those of faculty in the Colleges of 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; cytogentic.

**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.

Language Requirement

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

Faculty

- Adams, Amanda, Lecturer
  Biology
  PhD, University of Western Ontario, 2013
- 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, Professor
  Biology
  PhD, State University of New York at Albany, 1991
- Benedik, Michael J, Professor
  Biology
  PhD, Stanford University, 1982
- Beremand, Phillip D, Lab Instructor
  Biology
  PhD, Indiana University- Bloomington, 1979
- Bernardo, Joseph, Research Associate Professor
  Biology
  PhD, Duke University, 1991
- Blackmon, Heath L, Assistant Professor
  Biology
  PhD, University of Texas at Arlington, 2015
- Cohn, William B, Instructional Assistant 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 Texas Health Science Center, 2012
- 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

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

Garcia, Luis R, Professor
Biology
DDS, Texas A&M University Baylor College of Dentistry, 1999

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

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

Greenbaum, Ira F, Professor
Biology
PHD, Texas Tech University, 1978

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

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

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

Kemp, Walter M, Professor
Biology
PHD, The Tulane University of Louisiana, 1969

Leboeuf, Brigitte L, Lecturer
Biology
PHD, Texas A&M University, 2009

Lockless, Steve W, Associate Professor
Biology
PHD, University of Texas at Dallas, 2002

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

Manson, Michael D, Professor
Biology
PHD, Stanford University, 1976

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

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

McMahan, Uel J, Professor
Biology
PHD, University of Tennessee, 1964

Menet, Jerome, Assistant 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
Biology
PHD, Texas A&M University, 1992

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

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

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

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

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

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

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

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Biology
PHD, The University of Texas at Austin, 1994

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

Pepper, Alan E, Professor
Biology
PHD, University of California, 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 Assistant Professor
Biology
PHD, Texas A&M University, 2002

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

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

Roy Sarkar, Tapasree, Research Assistant Professor
Biology
PHD, Purdue University, 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

Scartt, Manfred, Visiting Professor  
Biology  
PHD, University of Gießen, 1980

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

Schiele, 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, 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 Assistant Professor  
Biology  
PHD, Texas A&M University, 2003

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

Thomas, Terry L, Professor  
Biology  
PHD, The University of Georgia, 1975

Thompson, Wesley J, Professor  
Biology  
PHD, University of California-Berkeley, 1975

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

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

Winemiller, Leslie K, Instructional Assistant Professor  
Biology  
PHD, University of Texas at Austin, 1989

Wooten, Leon, Lab Instructor  
Biology  
PHD, Texas A&M University, 1998

Wright, Rachel N, Lab Instructor  
Biology  
PHD, Texas A&M University, 2011

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

**Masters**

- Master of Science in Biology ([link](http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/science/biology/ms/))
- Master of Science in Ecology and Evolutionary Biology ([link](http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/science/biology/ecology-and-evolutionary-biology-ms/))
- Master of Science in Microbiology ([link](http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/science/biology/microbiology-ms/))

**Doctoral**

- Doctor of Philosophy in Biology ([link](http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/science/biology/phd/))
- Doctor of Philosophy in Microbiology ([link](http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/science/biology/microbiology-phd/))