

# Biological Sciences

Chair and Professor: Loxterman

Professors: Anderson, Baxter, Bearden, Delehanty, Groome, Finney, Keeley, Lohse, Loxterman, Meldrum, Sheridan, Thomas

Associate Professors: Aho, Martin, Pilarski, Reinhardt, Serve, A. Grinath, Pradhan

Assistant Professors: Chakraborty, de la Cruz, J. Grinath, Lane, Peacock, Ray, Turner

Lecturers: Adams, Abbruzzese, Frank, Fultz, Marion, Schwarz, Shurley, Stewart, Swenson

Program Description	Type	Degree
Doctor of Philosophy in Biology, Ph.D. ( <a href="https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/phdbiology/">https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/phdbiology/</a> )	Degree	Ph.D
Doctor of Philosophy in Microbiology, Ph.D. ( <a href="https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/phdmicrobiology/">https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/phdmicrobiology/</a> )	Degree	Ph.D
Doctor of Arts in Biology, D.A. ( <a href="https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/dabiology/">https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/dabiology/</a> )	Degree	D.A.
Master of Science in Biology, M.S. ( <a href="https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/msbiology/">https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/msbiology/</a> )	Degree	M.S.
Master of Science in Microbiology, M.S. ( <a href="https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/msmicrobiology/">https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/msmicrobiology/</a> )	Degree	M.S.
Accelerated B.S. to M.S. in Biology ( <a href="https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/bstoms/">https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/bstoms/</a> )	Accelerated Degree	B.S. to M.S.

## Department Mission

We are a community that advances understanding of the biological sciences through active discovery, learning, and engagement with society.

## Goals of Biology Graduate Programs

Students successfully completing graduate programs in Biology will:

1. Be able to think critically and comprehend written and verbal communications;
2. Attain skills appropriate for careers in the biological sciences and related industries;
3. Attain employment in the biological sciences, health professions, or related fields that require a biological understanding, and;
4. Reflect the values of our Department: Excellence: An international reputation for innovative scholarship with regional impacts
  - a. Sincerity: Inspire confidence and reliability in ourselves and others
  - b. Diversity: We reflect the aspirations, interests, and identities of our communities

- c. Community: A culture of mutual trust, respect, accountability, and camaraderie
- d. Passion: An enthusiastic dedication to our work
- e. Empowerment: Helping individuals realize their talents and fulfill their potential

## Admission Requirements for Biology Graduate Programs

In addition to ISU Graduate School admission requirements, general admission requirements for all graduate programs in the Department of Biological Sciences are:

- Availability of a suitable faculty advisor (applicants must contact a potential advisor prior to applying and the faculty must agree to review the application) and financial support from the Department of Biological Sciences;
- Completion of a bachelor's degree in the biological sciences or related field, or coursework commensurate with a degree in biological sciences;
- Cumulative GPA above 3.0 achieved in the most recent undergraduate or graduate degree;
- Curriculum vitae (CV) or academic resumé summarizing the applicant's educational background, leadership, awards/honors, research experiences (which may include scholarly research experiences from lab/field coursework), and research products (presentations, publications);
- Personal statement (2 page maximum) consisting of three sections:
  - Section A - description of the applicant's motivations and goals for attending graduate school, career aspirations, and challenges faced in pursuing this career path;
  - Section B - description of what the applicant learned from their previous research experiences which may include scholarly research experiences from lab/field coursework or employment, as well as impediments overcome during these experiences;
  - Section C - description of how joining the lab of their proposed advisor would help them to achieve their goals and allow them to pursue their interests in biology;
- Letters of recommendation from three academic or professional references who can comment on the applicant's ability to succeed in a biology graduate program;
- For international applicants who have not graduated from an accredited college or university in the United States and whose native language is not English, submission of a TOEFL score above 577 (paper-based), 233 (computer-based), or 90 (internet-based); and,
- Optional submission of supplemental documents, such as scholarly works, GRE test scores, or other materials that might be indicative of success in a graduate program.

## Core Courses for Biology Graduate Programs

All students in the graduate programs in Biology and Microbiology will take the following courses:

Code	Title	Credits
BIOL 6690	Introduction to Graduate Studies (fall semester of first year)	1

BIOL 6691	Seminar (second semester for M.S. students; third semester for doctoral students)	1
BIOL 6605	Biometry (spring semester)	4

**Financial Assistance**

The Department of Biological Sciences provides support for graduate students through Fellowships, Research Assistantships, and Teaching Assistantships. All forms of support include a stipend, full tuition, and other benefits. To be fully considered for the next fall semester GTA appointment, an application should be received by the end of December. Visit the department website or contact the biology graduate programs' director for details about financial assistance options.