DEPARTMENT OF BIOLOGICAL SCIENCES

Biology, the study of living things, is an exciting and dynamic field that offers many areas of focus. Graduate studies in the biological sciences provide opportunities to study viruses, bacteria, protists, fungi, plants, and animals and to investigate the biochemical, physiological, anatomical, behavioral, or ecological processes that make each organism unique. Specific areas of faculty research interests include parasitology, systematics of insects and plants, vegetation mapping, animal, plant and bacterial physiology, cellular signal transduction, genetics of longevity, micro and macro evolution, vertebrate reproduction, animal mating systems, entomology, behavioral ecology, and ecology of aquatic and terrestrial ecosystems.

The Department of Biological Sciences is located in the Lee Drain Building, which houses facilities including teaching and research laboratories, the Warner Herbarium, Sam Houston State Vertebrate Museum, Texas Bird Sound Library, an animal rearing facility, greenhouse, scanning electron microscope, and modern molecular biology research equipment. The Department also operates the Center for Biological Field Studies, a 250-acre field station within five miles of campus that is dedicated to research and teaching.

The Department of Biological Sciences offers MA and MS degrees in Biology and is a contributing partner to the interdisciplinary MS degree in Forensic Science along with the College of Criminal Justice and Department of Chemistry. The MS degree in Biology allows for specialization in one of several areas of Biology and is designed for those students planning to pursue careers in research or environmental biology with governmental agencies and industry. The MS degree in Biology is also appropriate for students planning to continue their training in Ph.D. programs at other institutions or in professional schools. The MS degree in Forensic Science is a degree that prepares the student to work for or consult with various agencies in the criminal justice system.

The MA degree in Biology is primarily designed for secondary education teachers who wish to increase their competency in the field of biology. This degree is not recommended for students who plan to pursue doctoral studies. Students pursuing the Master of Education degree may specialize in Biology as a teaching field.

Admission Requirements

Students seeking admission to the graduate program in the Biological Sciences must submit the Graduate Studies Application for Admission with the one-time application fee to the Office of Graduate Studies, official transcripts of all college-level work (including the transcript that shows the date the undergraduate degree was conferred), and official GRE scores. Two letters of recommendation from faculty in the undergraduate major field of study at the student’s undergraduate degree-granting institution are required with the application for admission.

To be granted regular admission to the graduate program, applicants must have an undergraduate degree in biology or a related field. Applicants having an undergraduate degree in a discipline other than biology must successfully complete the equivalent of an undergraduate minor in the biological sciences before being considered for regular admission. Regular admission to the graduate program is also based on a combination of GRE scores and undergraduate GPA. For a final admissions decision, GRE scores and undergraduate GPA do not constitute the primary criteria to end consideration of an applicant. A holistic review of each student’s application file will be completed on a competitive basis. More detailed information on competitive GRE scores and undergraduate GPA can be found on the department’s website at: www.shsu.edu/~bio_www/.

Master of Arts, 38 Semester Hours with a Minor, 32 Semester Hours without a Minor. This degree program is well suited for many training objectives, but it is most often recommended for secondary teachers who wish to prepare in two fields. A student may opt to include a minor. This plan requires 32 semester hours (38 with a minor field) of graduate credit. No more than two 400-level courses in the major field and one 400-level course in the minor field may be applied toward the degree. If opting for the MA with a minor, 26 hours are taken in Biology, including BIO 520, and 12 semester hours of graduate credit are required in a minor field that logically supports the major. Completion of a literature-based review paper is required.

Master of Science, 32 Semester Hours with Thesis. This degree program is designed for those students