MASTER OF SCIENCE IN BIOLOGY

The Master of Science in Biology is designed to prepare students for both a related doctoral program and for a career as a professional biologist in industry, government, and academia. This degree is research-oriented, requiring two seminars in biology research, six graduate level courses, and 6 hours of thesis. A diverse faculty allows students to choose among the gamut of biological research options, from studying the molecular basis of disease to investigating the ecological and evolutionary processes of macroorganisms. Faculty disciplines include:

- Cell and Molecular Biology
- Genetics
- Microbiology
- Physiology
- Forensic Science
- Systematics
- Animal Behavior
- GIS
- Ecology
- Entomology
- Botany
- Parasitology
- Ichthyology
- Herpetology
- Ornithology
- Mammalogy

To explore more about the faculty visit the Department of Biological Sciences (https://www.shsu.edu/academics/biological-sciences/).

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/graduate/biology/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

Applicants seeking admission to the graduate program in biology must submit the following directly to the Office of Graduate Admissions (https://www.shsu.edu/dept/graduate-admissions/prospective-students.html):

1. Graduate Application (http://www.shsu.edu/admissions/apply-texas.html)
2. Application fee (http://www.shsu.edu/dept/graduate-studies/application-fee.html)
3. Official transcript(s) of all previous college work
4. Two letters of recommendation from faculty in the student's major at the undergraduate degree-granting institution
5. A statement of purpose outlining the student’s goals in the program
6. C.V.

To be granted regular admission, 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.

Applicants from non-English speaking countries must also present a score of at least 78 on the Internet-based (iBT), 550 on the paper version (PBT), or 213 on the computer version (CBT) of the Test of English as a Foreign Language (TOEFL). In addition, International Students are required to have an SHSU Biological Sciences Graduate Faculty member write a letter of support for their application to the program.

More detailed information on admission, competitive GRE scores, and undergraduate GPA can be found in the Graduate Student Handbook (http://www.shsu.edu/academics/biological-sciences/programs/graduate-biology-program.html).

Assistantships

Teaching Assistantships are available through the Department of Biological Sciences (https://www.shsu.edu/academics/biological-sciences/) in conjunction with the College of Science and Engineering Technology (https://www.shsu.edu/academics/science-and-engineering-technology/) and the Graduate School. (https://www.shsu.edu/dept/graduate-studies/) They are limited in number and awarded on a competitive basis. An Application for Teaching Assistantship should be submitted separately to the Graduate Coordinator by the 12th week of the semester prior to the semester the student is applying. Assistantships are awarded for four semesters.

A Teaching Assistantship application can be found in the Graduate Student Handbook (http://www.shsu.edu/academics/biological-sciences/programs/graduate-biology-program.html).

There are two different plans leading to the M.S. in Biology. Plan 1 requires completion of a thesis for a total of thirty hours of graduate credit in biology. In Plan 2, students take twenty-seven hours of biology (including thesis hours) with 12 hours of supporting coursework in a chosen secondary field for a total of thirty-nine hours of graduate credit.

All graduate students are required to pass a comprehensive examination on general biological concepts based on their coursework. The nature of this examination, which may be written and/or oral, will be determined by the student's comprehensive exam committee. Students must be enrolled the semester they take the comprehensive examination.

A thesis research project is conducted under supervision of the student's thesis advisor, and the student will present the thesis to the faculty in seminar format. The thesis must be defended before the student's thesis committee.

Students must complete six credit hours of thesis coursework. This entails three credit hours of BIOL 6398 and three credit hours of BIOL 6099. Once enrolled in BIOL 6099, a student must be continually enrolled in that course until graduation.

Plan 1 - M.S. in Biology (Thesis)

Code	Title	Hours
Master of Science in Biology (Thesis)		
Specified Courses		
BIOL 5301 & BIOL 5302	Seminar in Biology Research I and Seminar in Biology Research II	6
Electives		
Select six graduate courses in BIOL in consultation with the Graduate Advisor excluding thesis courses		18
Thesis		
BIOL 6398	Thesis	3
BIOL 6099	Thesis	3
Total Hours		**30**

Plan 2 - M.S. in Biology with a Secondary Field (Thesis)

Code	Title	Hours
Master of Science in Biology (Thesis)		
Specified Course		
BIOL 5301 & BIOL 5302	Seminar in Biology Research I and Seminar in Biology Research II	6
Electives		
Select five graduate courses in BIOL in consultation with the Graduate Advisor excluding thesis courses		15
Secondary Field		
Select four graduate courses in an approved secondary field in consultation with the Graduate Advisor		12
Thesis		
BIOL 6398	Thesis	3
BIOL 6099	Thesis	3
Total Hours		**39**

The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The MS in Biology is designed to provide graduates with the following marketable skills:

- Master the depth of knowledge required for a master's degree in biological sciences.
- Demonstrate critical thinking.
- Communicate effectively.
- Work collaboratively.