

BIOLOGY, M.S.

Applicants who have completed a major in a biological science or appropriate related discipline and who present grade point averages that are predictive of success in this program may be admitted to the master's degree program. The M.S. degree is offered in Biology. The minimum requirement for M.S. degrees is thirty semester hours, including six semester hours of research (BIO 5V99 Thesis) leading to an acceptable thesis.

Master's students present a public exit seminar based on the thesis (M.S. degrees). During the final semester, master's students will have an oral examination comprising (1) demonstration of master's level knowledge in the concept areas associated with their area of emphasis, according to the particular degree program, and, for M.S. degrees, (2) defense of the thesis and (3) demonstration of proficiency in scientific investigation. There is no foreign language requirement or teaching requirement for the master's degrees in Biology.

For master's students, the major professor and the graduate program director in consultation with the student will select a thesis committee before the research is begun. The complete committee should be assembled by the end of the student's second semester. The major professor will be a member of the Biology graduate faculty or approved graduate faculty in affiliated life-science departments or programs at Baylor University. The committee consists minimally of three graduate faculty members, professors, including the major professor, a member of the Biology Department faculty and a Baylor University graduate faculty member from a department other than Biology. Additional faculty may be included on the committee. The committee is involved in the development of the thesis proposal and must approve the proposal before thesis research begins.

The M.S. degree in Biology is for those interested in developing an area of biological expertise through course work and an in-depth research experience that culminates in a thesis. Students may follow either of two emphases: ecology, evolution, and organismal biology (EEO), or cellular, molecular, health, and disease (CMHD) biology. Students in both emphases must demonstrate familiarity with the scientific literature, and expertise in experimental design, in collection and analysis data, and in interpretation of results in subject areas pertinent to the student's thesis research. The majority of course work is in Biology, although graduate courses in allied areas (e.g., Biomedical Studies, Health Sciences, Environmental Studies) may be taken with approval of the student's committee and graduate program director.

M.S. Coursework

Code	Title	Hours
BIO 5201	Research Methods in Biology	2
BIO 5324	Quantitative Biology	3
BIO 5325	Advanced Topics in Evolutionary Biology	3
BIO 5V99	Thesis	6
CHE 5101	Responsible Conduct of Research	1
Select from two courses below		6
BIO 5303	Ecological Applications in Modern Biology	
BIO 5307	Advanced Cell and Molecular Biology	
BIO 5310	Advanced Microbiology	
BIO 5312	Introduction to Multiomics Experimentation and Analysis	

Additional Graduate Coursework ¹	9
Total Hours	30

¹ Courses must be listed in the Graduate Course Catalog and must be BIO, CHE, ENV, PSY, ANT, or BMS courses.

Up to four hours of BIO 5100 Seminars in Biology, or other appropriate seminars approved by the student's committee and graduate program director may be applied toward a master's program; repeat credit requires a change in topic from previous registrations. Not more than six hours of BIO 5V90 Special Problems may be applied toward master's degree requirements. At least 12 hours of this coursework (excluding the 6 hours of 5V99) must be at the 5000 level. No more than 12 hours may be taken at the 4000 level, and 4000 level courses MUST carry graduate credit (i.e., not all 4000 level courses are eligible for graduate credit).