

M.S. in Biological Sciences

The Master of Science (MS) in Biological Sciences provides a training environment to develop science professionals in fields focusing on topics ranging from Ecology and Evolutionary Biology (EEB) to Biomedical Sciences. Our graduates will obtain research experience, practical knowledge in the biological sciences, and professional development training structured to lead to success in their future professional goals. Our faculty's research interests and the program training opportunities covers a wide range of topics including Biochemistry, Cancer Biology, Cell Biology, Ecology, Environmental Sciences, Epidemiology, Evolution, Genomics, Global Climate Change Biology, Immunology and Infectious Disease, Microbiology, Neuroscience, Toxicology, and Virology.

Admission Requirements

1. Bachelor's degree from an accredited institution in the United States or proof of equivalent education at a foreign institution.
2. Undergraduate degree in Biology or a related field and at least eight (8) semester hours of General Chemistry.
3. Applicants whose degrees are from non-English speaking institutions are required to demonstrate English proficiency. Please consult the Graduate School (<https://www.utep.edu/graduate/future-students/applicant-timelines.html>) website for required scores.

The GRE (Graduate Record Examination) is optional.

Degree Requirements

A thesis based on original work is required and must be defended orally. The student should decide on an area of specialization and select a supervising professor within the first semester. The supervising professor will act as chairperson of the thesis committee, which will be comprised of a minimum of three graduate faculty members, including one from outside the Department of Biological Sciences. MS students require 30 credits hours for the degree. They may select up to nine hours of upper-division undergraduate course (3000 and 4000 level courses) as part of the 30 required credits. Six credit hours can be taken in a combination of BIOL 5102, 5202, 5402 (Independent Research) and BIOL 5302, 5502 (Research in Biological Sciences). A degree plan must be submitted by the end of the first semester enrolled and a thesis proposal is due before the beginning of the second year.

Degree Plan

Required Credits: 30

Code	Title	Hours
MS in Biological Sciences (All courses require a grade of C or better)		
Graduate Seminar:		3
Select three hours from the following		
BIOL 5129	Seminar in Ecology Evolution	
BIOL 5130	Seminar	
Graduate Course Work:		21
Select twenty-one hours from the following:		
BIOL 5102	Independent Research	
BIOL 5131	Ethical, Soc/Pol Dimensions	
BIOL 5202	Independent Research	
BIOL 5301	Select Adv Topics Biol Science	
BIOL 5302	Resrch Biological Science	
BIOL 5305	Herpetology	
BIOL 5308	Rsrch Funding & Prof Developmt	
BIOL 5208	Prof Skills Devel Eco Evo	
BIOL 5209	Rsrch Proposals in Eco Evo	
BIOL 5313	Biogeography	
BIOL 5316	Biosystematics	
BIOL 5322	Advances/Evolutionary Theory	
BIOL 5326	Advances Immunological Concept	
BIOL 5327	Advances in Ecological Theory	
BIOL 5328	Biostatistics	
BIOL 5329	Physiology of Bacterial Cell	
BIOL 5340	Structure/Funct Macromolecules	
BIOL 5344	Molecular Pathogenesis	
BIOL 5351	Intro Bio I:Basic Seq. Comp.	

BIOL 5352	Intro Bio II: Gene Find/Compar	
BIOL 5360	Aquatic Ecology	
BIOL 5502	Resrch in Biological Sciences	
BIOL 5363	Spatial Ecology	
BIOL 6190	Independent Research	
BIOL 6290	Independent Research	
BIOL 6301	Basic Principles of Toxicology	
BIOL 6303	Gene Regulation	
BIOL 6304	Physiological Regulatory Mech	
BIOL 6305	Cell Physiology	
BIOL 6308	Rsrch Funding & Prof Developmt	
BIOL 6312	Biodiversity	
BIOL 6345	Molecular Parasitology	
Thesis:		
BIOL 5398 & BIOL 5399	Thesis and Thesis	6
Total Hours		30