Master of Science in Biology (Thesis)

About This Program

The Master of Science in Biology thesis option is intended to prepare students for careers in research, government agency, and industry. Students conduct research leading to a thesis in one of the five concentrations: Cell Biology, Genetics and Genomics, Ecology and Evolution, Bioinformatics, or Microbiology.

Competencies

1. Upon completion, students will be able to synthesize and explain, in written and oral forms, complex concepts and theories in the field of biology as presented in primary literature.
2. Upon completion, students will be able to analyze biological data and interpret the results for presentation in written and oral formats.
3. Upon completion, students will be able to effectively communicate their research with others in their field of study through publication and presentation.
4. Upon completion, students will be able to plan and implement the investigative procedures, formulate hypotheses, collect, analyze and interpret data, and draw conclusions from their research.

Admissions Criteria

HOW TO APPLY

Read the general instructions for applying to the graduate program and download the checklists available on the Office of Admissions webpage. Submit the application and your official transcripts through the UTA Office of Admissions.

Questions can be addressed to askbiology@uta.edu.

ADMISSION CRITERIA

1. A bachelor's degree in biology or a bachelor's degree in a related discipline with at least 12 hours of advanced level coursework (junior or senior level courses) in biology.
2. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School. Applicants' GPA in the Sciences will also be considered.
3. International students whose home country’s native language is not English must provide a score on the Test of Spoken English (TSE) of at least 45, a minimum score of 23 on the Speaking portion of the TOEFL iBT exam, or a minimum score of 7 on the Speaking portion of the IELTS exam.
4. OPTIONAL: GRE. Students may submit GRE scores, although they are not a requirement for admission.

Curriculum

Foundations		
BIOL 5314	BIOMETRY	3
BIOL 5340	BIOINFORMATICS	3
Specialization		
Select five from the following:		15
BIOL 5303	MICROBIOMES: HEALTH AND THE ENVIRONMENT	
BIOL 5304	VIROLOGY	
BIOL 5307	NEUROBIOLOGY	
BIOL 5309	IMMUNOLOGY	
BIOL 5311	EVOLUTION	
BIOL 5317	BACTERIAL PATHOGENESIS	
BIOL 5319	HUMAN GENETICS	
BIOL 5321	ADVANCED PROBLEM SOLVING IN BIOLOGY	
BIOL 5335	ESSENTIALS OF GENOMICS	
BIOL 5336	MOLECULAR EVOLUTION	
BIOL 5342	DEVELOPMENTAL BIOLOGY IN HEALTH AND DISEASE	
BIOL 5353	FUNDAMENTAL MEDICAL MYCOLOGY	
BIOL 5354	LIMNOLOGY	
BIOL 5355	TOXICOLOGY	
BIOL 5359	MEDICAL MOLECULAR BIOLOGY	

BIOL 5366	ADVANCED ORGANISMAL PHYSIOLOGY	
Thesis		
Select one from the following:		3
BIOL 5370	THESIS RESEARCH IN CELL BIOLOGY	
BIOL 5371	THESIS RESEARCH IN ECOLOGY AND EVOLUTION	
BIOL 5372	THESIS RESEARCH IN BIOINFORMATICS	
BIOL 5373	THESIS RESEARCH IN MICROBIOLOGY	
BIOL 5374	THESIS RESEARCH IN GENETICS AND GENOMICS	
BIOL 5698	THESIS	6
Total Hours		**30**

Subject to written approval by the Graduate Advisor and within the limitations stated in the General Graduate School Regulations, a MS student may take up to nine hours of coursework from courses listed under Biology at the 3000 or 4000 levels. Coursework may be taken in other areas to support the student's program subject to graduate advisor approval.

Advising Resources

Location:

Life Science Building, Room 337
501 S. Nedderman Dr.
Arlington, TX 76019

Email:

askbiology@uta.edu

Phone:

817-272-2872

Web:

Department of Biology Advising (https://www.uta.edu/academics/schools-colleges/science/departments/biology/advising/)