Master of Science in Chemistry

About This Program

The objectives of the Chemistry and Biochemistry Department's program leading to the Master of Science degree include:

1. developing the individual's ability to do independent research,
2. preparing students for more advanced study in chemistry and
3. providing advanced training to professional chemists and those employed in technical and business areas in which chemistry at this level is necessary for efficient performance.

Research areas include analytical chemistry, biochemistry, bioinorganic chemistry, colloid and surface chemistry, electrochemistry, inorganic chemistry, medicinal chemistry, organic chemistry, physical chemistry, polymer chemistry, and theoretical chemistry.

Competencies

1. Upon completion, students will have a general knowledge of how chemical research is performed and the chemistry and/or biochemistry literature related to their thesis project.
2. Upon completion, students will have a broad knowledge of chemistry outside of their chosen area of specialization.
3. Upon completion, students will be able to communicate scientific concepts and findings in an oral presentation with others in their field as well as the general scientific community.
4. Upon completion, students will be able to communicate scientific concepts and findings in writing with others in their field as well as the general scientific community.

Admissions Criteria

In evaluating candidates for admission to its graduate degree programs, the Department of Chemistry and Biochemistry emphasizes the preparedness of the student as evidenced by quality and quantity of coursework and the student's previous research experience. Recommendations from our own faculty, based on firsthand knowledge of the applicant or a faculty member at the applicant's institution, are also very important.

A candidate for graduate study must satisfy the general admission requirements of the program.

UNCONDITIONAL ADMISSION

Unconditional admission may be granted under any one of the following options. The minimum undergraduate GPA requirement for all options is 3.0, as calculated by Graduate Admissions.

OPTION 1

A satisfactory completion of a Bachelor's degree or equivalent, official transcripts, and GRE scores, and three letters of recommendation.

OPTION 2

A satisfactory completion of a Bachelor's degree or equivalent, official transcripts, and a letter of recommendation from a faculty member at the applicant's undergraduate institution, *plus a recommendation from a UT Arlington Chemistry and Biochemistry faculty member.*

OPTION 3

A satisfactory completion of a bachelor's degree or equivalent, official transcripts, and a letter of recommendation from a faculty member at the undergraduate institution, *plus a recommendation from a UT Arlington Chemistry and Biochemistry faculty member based on a face-to-face interview.*

The Master's Degree with Thesis Substitute is available for students with at least five years of professional experience in an industrial, government, or other chemistry laboratory at the time the degree is awarded. Admission to the program requires specific approval of the Graduate Studies Committee.

LANGUAGE REQUIREMENTS

An applicant whose native language is not English must submit a TOEFL score of at least 550 or a score of at least 213 on the computer-based test. A TSE-A score of 45 or higher can be substituted for the TOEFL. Those who have completed their undergraduate education in English *may be eligible for a TOEFL waiver* based on the recommendation letters.

PROVISIONAL ADMISSION

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

PROBATIONARY ADMISSION

In rare cases, probationary admission may be granted as the result of a substandard performance on one or more of the admission criteria. In this case, the Graduate Advisor will set additional conditions for admission including, but not limited to, additional undergraduate coursework and/or achieving a B or better in the first 9 hours of graduate coursework.

DENIAL OF ADMISSION

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

ELIGIBILITY FOR SCHOLARSHIPS/FELLOWSHIPS

Students that have no provisional admission conditions to meet will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by Graduate Admissions, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships. (Students with graduate teaching or research assistantships, however, must be enrolled in a minimum of 9 hours of coursework in both long semesters and 6 hours of coursework in the summer sessions.)

Curriculum

Foundations		
Select 18 graduate hours in chemistry with at least 12 from 4 of the chemistry disciplines (Analytical, Biochemistry, Inorganic, Organic, and Physical). Suggested classes follow.		18
For biochemistry select:		
CHEM 5331	ADVANCED BIOCHEMISTRY I	
or CHEM 5336	STRUCTURE & FUNCTION OF PROTEINS, MEMBRANES & CARBOHYDRATES AND FAST KINETICS	
For inorganic chemistry select:		
CHEM 5341	INORGANIC CHEMISTRY	
For organic chemistry select:		
CHEM 5351	ADVANCED ORGANIC CHEMISTRY I - PHYSICAL ORGANIC CHEMISTRY	
For physcial chemistry select:		
CHEM 5361	INTRODUCTION TO GRADUATE PHYSICAL CHEMISTRY	
For analytical chemistry select from the following:		
CHEM 5324	ANALYTICAL MASS SPECTROMETRY AND SPECTROSCOPY	
CHEM 5325	SEPARATION SCIENCE	
Thesis Options		
Complete 12 hours in one of the following options.		12
Thesis		
Select two elective, graduate division courses in a science or engineering subject approved by graduate advisor		
CHEM 5698	THESIS	
Thesis Substitute		
Select two to three graduate division courses in a science or engineering subject approved by graduate advisor		
CHEM 5392	RESEARCH IN CHEMISTRY	
Non-Thesis		
Select two graduate courses in chemistry approved by graduate advisor.		
Select two graduate division courses in a science or engineering subject approved by graduate advisor		
Total Hours		**30**

Advising Resources

Current students may contact our graduate advisor. Prospective students should contact our graduate recruiting chair.

LOCATION:

Graduate Advisor

Chemistry Research Building (CRB) Room 203

Graduate Recruiting Chair

Chemistry Physics Building (CPB) Room 352

EMAIL:

chemgradadvising@uta.edu

PHONE:

817-272-0262

WEB:

Schedule an appointment (https://www.uta.edu/academics/schools-colleges/science/departments/chemistry/advising/)