

Bachelor of Science in Biochemistry to Master of Science in Biomedical Engineering Fast-Track

About This Program

Bachelor of Science in Biochemistry to Master of Science in Biomedical Engineering Fast-Track enables outstanding UT Arlington senior undergraduate students in biochemistry to satisfy degree requirements leading to a master's degree in bioengineering while completing their undergraduate studies.

The BS in Biochemistry of this Fast-Track program is an American Chemical Society Certified degree.

ASSOCIATED PROGRAMS

For detailed information about the programs associated with this Fast Track, refer to their individual degree pages.

Biochemistry BS (<https://catalog.uta.edu/archives/2025-2026/science/chemistry/undergraduate/biochem-bs/>)

Biomedical Engineering MS (<https://catalog.uta.edu/archives/2025-2026/engineering/bio/graduate/bioengineering-ms/>)

Admissions Criteria

Students interested in this program should consult with Bioengineering Advisors when they are within 30 hours of completing their bachelor's degrees.

They must have completed at least 30 hours of relevant course work at UT Arlington, achieving a GPA of at least 3.0 in those courses, and have an overall GPA of 3.0 or better in all UT Arlington College of Science courses.

Students must take the following undergraduate courses in order to be admitted into the fast track program.

- BE 3380 HUMAN PHYSIOLOGY IN BE
- CHEM 2335 QUANTITATIVE CHEMISTRY
- CHEM 4311 BIOCHEMISTRY I

The cumulative GPA required for the foundation courses is a 3.3. Students must also maintain a 3.3 GPA or higher in all CHEM courses completed at UTA, and have a cumulative GPA of a 3.3 or higher.

The following courses will satisfy requirements for both the BS and the MS:

- BE 5333 NANO BIOMATERIALS AND LIVING-SYSTEMS INTERACTIONS
- BE 5365 TISSUE ENGINEERING LAB
- BE 5372 DRUG DELIVERY SYSTEM

For automatic admission to the master's program, students must complete these courses with at least a B.

Curriculum

Foundations

Complete foundations requirements in Biochemistry BS per catalog. 58

Specialization

Biomedical Engineering		
BE 3380	HUMAN PHYSIOLOGY IN BE ¹	3
BE 4337	TRANSPORT PHENOMENA IN BIOMEDICAL ENGINEERING	3
Chemistry		
CHEM 1341	GENERAL CHEMISTRY I	3
CHEM 1181	GENERAL CHEMISTRY I LABORATORY FOR ADVANCED CHEMICAL TECHNOLOGIES	1
CHEM 1342	GENERAL CHEMISTRY II	3
CHEM 1182	GENERAL CHEMISTRY II LABORATORY FOR ADVANCED CHEMICAL TECHNOLOGIES	1
CHEM 2321	ORGANIC CHEMISTRY I	3
CHEM 2322	ORGANIC CHEMISTRY II	3
CHEM 2335	QUANTITATIVE CHEMISTRY ¹	3
CHEM 2283	SYNTHESIS AND ANALYSIS LABORATORY I	2
CHEM 2284	SYNTHESIS AND ANALYSIS LABORATORY II	2
CHEM 3321	PHYSICAL CHEMISTRY I	3

CHEM 3181	PHYSICAL CHEMISTRY I LABORATORY	1
CHEM 3322	PHYSICAL CHEMISTRY II	3
CHEM 3182	PHYSICAL CHEMISTRY II LABORATORY	1
CHEM 3317	INORGANIC CHEMISTRY	3
CHEM 4311	BIOCHEMISTRY I ¹	3
CHEM 4242	LABORATORY TECHNIQUES IN BIOCHEMISTRY	2
CHEM 4312	BIOCHEMISTRY II	3
CHEM 4461	INSTRUMENTAL ANALYSIS	4
CHEM 4313	METABOLISM AND REGULATION	3
or CHEM 4314	ENZYMOLGY	
Graduate Level Biomedical Engineering ²		
BE 5333	NANO BIOMATERIALS AND LIVING-SYSTEMS INTERACTIONS	3
BE 5365	TISSUE ENGINEERING LAB	3
BE 5372	DRUG DELIVERY SYSTEM	3
Electives sufficient to reach the 120 credit requirement.		
Bioengineering MS		
Complete MS requirements per catalog.		21
Total Hours		141

¹ This courses must be completed with cumulative GPA of 3.3 or higher for admission to the fast track.

² Undergraduate courses being satisfied by these graduate courses are CHEM 4313 (or CHEM 4314), CHEM 4346, and one hour advanced elective. One credit hour difference will be satisfied by other undergraduate courses.

Advising Resources

First time in college students should plan to speak to a program advisor when starting their second year. Transfer students should be advised prior to New Maverick Orientation.

Location:

SH 303

Email:

chemugradadvisor@uta.edu

Phone:

817-272-9687

Web:

Advising Information (<https://www.uta.edu/academics/schools-colleges/science/departments/chemistry/advising/>)