Bachelor of Arts in Chemistry

About This Program

Bachelor of Arts in Chemistry is suitable preparation for students who desire certification with a teaching field in chemistry without entering the UTeach pathway.

Competencies

1. Students will gain knowledge of an essential core of knowledge in chemistry, including organic, inorganic, physical, and biochemistry.
2. Students will communicate, both orally and in writing, chemical topics relevant to their field of interest.
3. Students will be able to read and analyze scientific papers in their area of interest.
4. Students will obtain standard laboratory skills and techniques that are relevant to the study of all areas of chemistry.
5. Students will gain fundamental knowledge of theory and operation of modern chemical instrumentation.

Curriculum

Foundations		
General Core Requirements (https://catalog.uta.edu/academicregulations/degreerequirements/generalcorerequirements/)		42
Students must complete specific courses in certain core areas.		
For Communication select:		
ENGL 1301 & ENGL 1302	RHETORIC AND COMPOSITION I and RHETORIC AND COMPOSITION II	
For Mathematics select:		
MATH 1426	CALCULUS I	
MATH 2425	CALCULUS II	
For Life and Physical Sciences select:		
PHYS 1441	GENERAL COLLEGE PHYSICS I	
PHYS 1442	GENERAL COLLEGE PHYSICS II	
For U.S. History select:		
HIST 1301	HISTORY OF THE UNITED STATES TO 1865	
HIST 1302	HISTORY OF THE UNITED STATES, 1865 TO PRESENT	
Chemistry Foundations		
Additional hours in required core courses.		4
CHEM 1101	SUCCESS IN CHEMISTRY AND BIOCHEMISTRY	1
Select 14 hours in a single modern/classical language or eight hours in a language plus six advanced hours from one liberal arts area cluster to be chosen with the guidance of the undergraduate advisor [1]		14
Select two Biology or Geology for science majors courses. [2]		8
Chemistry Specialization		
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 [3]	3
CHEM 2283	SYNTHESIS AND ANALYSIS LABORATORY I	2
CHEM 2284	SYNTHESIS AND ANALYSIS LABORATORY II	2
CHEM 3315	INTRODUCTION TO BIOPHYSICAL CHEMISTRY	3
CHEM 3175	BIOPHYSICAL CHEMISTRY LABORATORY	1
CHEM 3317	INORGANIC CHEMISTRY	3
CHEM 4101	SEMINAR IN CHEMISTRY	1
CHEM 4311	BIOCHEMISTRY I	3
Select one from the following:		2

CHEM 3307	INTRODUCTION TO POLYMER CHEMISTRY	
CHEM 4242	LABORATORY TECHNIQUES IN BIOCHEMISTRY	
CHEM 4312	BIOCHEMISTRY II	
CHEM 4318	INORGANIC CHEMISTRY	
CHEM 4346	ADVANCED SYNTHETIC METHODS	
Select 3000/4000 level courses sufficient to meet the 36 advanced hours requirement.		17
Total Hours		**120**

The minimum biology requirement for premedical students is BIOL 1441 CELL AND MOLECULAR BIOLOGY and three additional courses. Specifically, BIOL 2444 GENERAL MICROBIOLOGY and BIOL 3442 HUMAN PHYSIOLOGY are recommended plus three additional hours.

SUGGESTED COURSE SEQUENCE

First Year

First Semester	Hours	Second Semester	Hours
CHEM 1341	3	CHEM 1342	3
CHEM 1181	1	CHEM 1182	1
MATH 1426	4	MATH 2425	4
BIOL 1441 or GEOL 1301[1C]	4	BIOL 1442 or GEOL 1302[1C]	4
ENGL 1301	3	ENGL 1302	3
CHEM 1101	1		
	16		**15**

Second Year

First Semester	Hours	Second Semester	Hours
CHEM 2321	3	CHEM 2322	3
CHEM 2283	2	CHEM 2335	3
PHYS 1441	4	CHEM 2284	2
Language, Philosophy, and Culture	3	PHYS 1442	4
Modern/Classical Language[1]	4	Modern/Classical Language[1]	4
	16		**16**

Third Year

First Semester	Hours	Second Semester	Hours
CHEM 3315	3	CHEM 4311	3
CHEM 3175	1	POLS 2312	3
POLS 2311	3	Modern/Classical Language[1]	3
Modern/Classical Language[1]	3	Creative Arts	3
Advanced Elective	6	Advanced Elective	3
	16		**15**

Fourth Year

First Semester	Hours	Second Semester	Hours
CHEM 3317	3	CHEM 3000 level or above (can be up to 3 hrs)	2
CHEM 4101	1	HIST 1302	3
HIST 1301	3	Social and Behavioral Sciences	3
Foundational Component Area	3	Advanced Electives	3
Advanced Electives	5		
	15		**11**

Total Hours: 120

1 Liberal arts course approved by advisor.

2 Student may take GEOL 1301 and 1302 to meet degree requirement. This will affect the number of electives needed to reach 120 hours.

3 Completion of CHEM 2335 with the grade of "C" or above will satisfy the computer proficiency requirement.

Program Completion

ORAL COMMUNICATION AND COMPUTER COMPETENCY REQUIREMENTS

For all chemistry degree programs except the UTeach certification degree programs, the university computer competency requirement will be met by: completion of CHEM 2335 QUANTITATIVE CHEMISTRY with the grade of "C" or above or taking CSE 1301 or by passing the University computer

proficiency examination. For the UTeach certification degree programs, completion of EDUC 4331 KNOWING AND LEARNING IN MATH AND SCIENCE fulfills the requirement.

The University oral communication competency requirement may be satisfied by taking CHEM 4101 (required for the Bachelor of Science degree in Chemistry, the Bachelor of Arts degree in Chemistry, and the combined BS-MS degree in Chemistry) or by taking CHEM 4313 or CHEM 4314 (required for the Bachelor of Science degree in Biochemistry and the Bachelor of Science degree in Biological Chemistry). For the UTeach certification degree programs, completion ofSCIE 1201 or SCIE 1334 (required for the UTeach programs) fulfills the requirement.

Students should refer to the specific degree plans and the chemistry undergraduate advisor for details regarding these requirements.

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/)