Bachelor of Arts Degree in Chemistry with Physical Science Teacher Pathway (UTeach Program)

About This Program

Bachelor of Arts Degree in Chemistry with Physical Science Teacher Pathway (UTeach Program) is suitable preparation for students who desire certification with a teaching field in chemistry and/or physical science.

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 within certain core areas		
For Communication select:		
ENGL 1301	RHETORIC AND COMPOSITION I	
ENGL 1302	RHETORIC AND COMPOSITION II	
For Mathematics select:		
MATH 1426	CALCULUS I	
MATH 2425	CALCULUS II	
For Life & Physical Sciences select:		
PHYS 1443	GENERAL TECHNICAL PHYSICS I	
PHYS 1444	GENERAL TECHNICAL PHYSICS II	
For US 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 required in the core.		1
CHEM 1101	SUCCESS IN CHEMISTRY AND BIOCHEMISTRY	1
PHIL 2314	PERSPECTIVES ON SCIENCE AND MATHEMATICS	3
PHYS 3313	INTRODUCTION TO MODERN PHYSICS	3
PHYS 23XX 2000-level or above physics elective		3
PHYS 34XX Advanced physics elective with lab		4
BIOL 1441	BIOLOGY I FOR SCIENCE MAJORS: CELL AND MOLECULAR BIOLOGY	4
BIOL 1442	BIOLOGY II FOR SCIENCE MAJORS: ECOLOGY AND EVOLUTION	4
Teaching Specialization		
SCIE 1201	STEP 1: INQUIRY APPROACHES TO TEACHING	2
SCIE 1202	STEP 2: INQUIRY-BASED LESSON DESIGN	2
SCIE 4107	CAPSTONE TEACHING EXPERIENCE SEMINAR	1
SCIE 4331	KNOWING AND LEARNING IN STEM	3
SCIE 4332	CLASSROOM INTERACTIONS	3
SCIE 4333	MULTIPLE TEACHING PRACTICES	3
SCIE 4607	CAPSTONE TEACHING EXPERIENCE FOR STEM SECONDARY GRADES	6
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
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 4101	SEMINAR IN CHEMISTRY	1
CHEM 4311	BIOCHEMISTRY I	3
CHEM 4343	RESEARCH METHODS - UTEACH	3
CHEM 3317	INORGANIC CHEMISTRY	3
or CHEM 4318	INORGANIC CHEMISTRY	
Total Hours		**120**

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
SCIE 1201	2	PHYS 1443	4
ENGL 1301	3	SCIE 1202	2
POLS 2311	3	ENGL 1302	3
CHEM 1101	1		
	17		**17**

Second Year

First Semester	Hours	Second Semester	Hours
CHEM 2321	3	CHEM 2322	3
CHEM 2335	3	CHEM 2284	2
CHEM 2283	2	SCIE 4332	3
SCIE 4331	3	HIST 1301	3
PHYS 1444	4	PHYS 23XX+	3
	15		**14**

Third Year

First Semester	Hours	Second Semester	Hours
CHEM 4311	3	CHEM 3317	3
POLS 2312	3	CHEM 3315	3
PHYS 3313	3	CHEM 3175	1
PHIL 2314	3	CHEM 4343	3
HIST 1302	3	Language, Philosophy, & Culuture	3
	15		**13**

Fourth Year

First Semester	Hours	Second Semester	Hours
CHEM 4101	1	SCIE 4107	1
SCIE 4333	3	SCIE 4607	6
BIOL 1441	4	BIOL 1442	4
PHYS 34XX	4	Creative Arts	3
Social and Behavioral Sciences	3		
	15		**14**

Total Hours: 120

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/)