

Bachelor of Science in Geology (Professional)

About This Program

Bachelor of Arts in Geology Professional Option is for students who plan to enter the profession or go to graduate school. The program emphasizes breadth and exposes students to most of the geological disciplines.

Competencies

1. Upon graduation, students will demonstrate expertise in the use of methods found within the core disciplines of geology including mineralogy, petrology, sedimentology and stratigraphy, paleontology, and structural geology.
2. Upon graduation, students will be able to interpret geological maps and describe three-dimensional structures of rocks in the earth's crust.
3. Upon graduation, students will be able to analyze scientific data in geoscience.
4. Upon graduation, students will be able to communicate complex information using written reports and oral presentation to both specialists and non-specialists.

Curriculum

Foundations

General Core Requirements (<https://catalog.uta.edu/academicregulations/degree requirements/generalcorerequirements/>) 42

Students must select specific courses in certain core areas.

For Communication select:

ENGL 1301	RHETORIC AND COMPOSITION I
& ENGL 1302	and RHETORIC AND COMPOSITION II

For Life & Physical Sciences select:

PHYS 1441	GENERAL COLLEGE PHYSICS I
or PHYS 1443	GENERAL TECHNICAL PHYSICS I
PHYS 1442	GENERAL COLLEGE PHYSICS II
or PHYS 1444	GENERAL TECHNICAL PHYSICS II

For Mathematics select:

MATH 1426	CALCULUS I
MATH 2425	CALCULUS II

For US History select:

HIST 1301	HISTORY OF THE UNITED STATES TO 1865
HIST 1302	HISTORY OF THE UNITED STATES, 1865 TO PRESENT

Geology Foundations

Additional hours required in core. 4

UNIV 1131	STUDENT SUCCESS	1
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Communication Competence - pass oral presentation requirement in GEOL 3441 or GEOL 3443, or complete COMS 1301, COMS 2302, or other equivalent course

Computer Competence - pass Computer Skills Placement test or any computer-related course such as:

GEOL 4330	UNDERSTANDING GEOGRAPHIC INFORMATION SYSTEMS
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Geology Foundations

BIOL 1441	BIOLOGY I FOR SCIENCE MAJORS: CELL AND MOLECULAR BIOLOGY	4
CHEM 1441	GENERAL CHEMISTRY I	4
CHEM 1442	GENERAL CHEMISTRY II	4
GEOL 3454	STATISTICS FOR EARTH AND ENVIRONMENTAL SCIENTISTS	4

Geology Specialization

GEOL 1301	EARTH SYSTEMS	3
GEOL 1302	EARTH HISTORY	3
GEOL 2445	MINERALOGY	4
GEOL 3387	FIELD GEOLOGY I	3
GEOL 3388	FIELD GEOLOGY II	3
GEOL 3441	BIOSTRATIGRAPHY AND LIFE THROUGH TIME	4
GEOL 3442	SEDIMENTOLOGY AND STRATIGRAPHY	4

GEOL 3443	STRUCTURAL GEOLOGY	4
GEOL 3446	PETROLOGY AND GEOCHEMISTRY	4
GEOL 4330	UNDERSTANDING GEOGRAPHIC INFORMATION SYSTEMS	3
Select 8 hours in GEOL, ENVR, or DATA at the 3000/4000-level		8
Minor and Electives		
Select a minor of at least 18 hours as required by Biology, Chemistry, Mathematics, or Physics (will include at least one Geology Foundations course)		14
Select courses sufficient to complete 120 hours with 36 hours at the 3000/4000 level		
Total Hours		120

SUGGESTED COURSE SEQUENCE

Details of a personal course sequence should be made with the guidance of the Earth and Environmental Sciences undergraduate advisor, particularly since many GEOL courses are not offered every semester. Students should also consult with the appropriate department for minor requirements.

First Year

	First Semester	Hours	Second Semester	Hours
	CHEM 1441		4 CHEM 1442	4
	GEOL 1301	3	GEOL 1302	3
	ENGL 1301	3	ENGL 1302	3
	MATH 1426	4	MATH 2425	4
	UNIV 1131	1		
	15		14	

Second Year

	First Semester	Hours	Second Semester	Hours
	BIOL 1441		4 PHYS 1442 or 1444	4
	GEOL 2445	4	POLS 2312	3
	POLS 2311	3	Creative Arts *	3
	PHYS 1441 or 1443	4	minor course **	4
	15		14	

Third Year

Summer Session	Hours	First Semester	Hours	Second Semester	Hours
GEOL 3387	3	GEOL 3441	4	GEOL 3442	4
GEOL 3388	3	GEOL 3443	4	GEOL 3446	4
		GEOL 4330	3	HIST 1302	3
		HIST 1301	3	minor course *	3
	6		14		14

Fourth Year

	First Semester	Hours	Second Semester	Hours
	GEOL 3454		4 Approved GEOL 4000-level courses	8
	Additional 4000 level Geology elective	4	Foundational Component Area *	3
	Language, Philosophy, and Culture *	3	Social/Behavioral Science *	3
	minor course **	3		
	14		14	

Total Hours: 120

* See [General Core Requirements](https://catalog.uta.edu/archives/2025-2026/academicregulations/degree requirements/generalcorerequirements/) (https://catalog.uta.edu/archives/2025-2026/academicregulations/degree requirements/generalcorerequirements/) for approved courses.

** Actual number of courses/hours and course sequence determined by appropriate department.

Advising Resources

First time in college students should plan to speak to a program advisor when starting their second year. or have an academic advising hold. Transfer students should contact program advising when enrolled or have an academic advising hold.

Location:

SH 328C

Email:

kaycee.nikses@uta.edu

Phone:

817-272-9686

Web:

Schedule an appointment (<https://outlook.office365.com/book/PHYSGEOLEESADVISING@mavs.uta.edu/>)