Bachelor of Arts in Geology (GIS)

About This Program

The Bachelor of Arts in Geology Geographic Information Systems option is for students who want to combine Geology with computer technology to store and analyze spatial data using GIS software.

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.
5. Upon graduation, students will demonstrate expertise in geographical information systems (GIS) and attain a CIS certificate.

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 Life & Physical Sciences select:		
PHYS 1441	GENERAL COLLEGE PHYSICS I	
PHYS 1442	GENERAL COLLEGE PHYSICS II	
For Mathematics select:		
MATH 1308	ELEMENTARY STATISTICAL ANALYSIS	
MATH 1421	PREPARATION FOR CALCULUS	
For U.S. 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.		3
UNIV 1131	STUDENT SUCCESS	1
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	
BIOL 1441	BIOLOGY I FOR SCIENCE MAJORS: CELL AND MOLECULAR BIOLOGY	4
BIOL 1442	BIOLOGY II FOR SCIENCE MAJORS: ECOLOGY AND EVOLUTION	4
CHEM 1441	GENERAL CHEMISTRY I	4
CHEM 1442	GENERAL CHEMISTRY II	4
Geology Specialization		
GEOL 1301	EARTH SYSTEMS	3
GEOL 1302	EARTH HISTORY	3
GEOL 2445	MINERALOGY	4
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
GEOL 4331	ANALYSIS OF SPATIAL DATA	3

GEOL 4333	REMOTE SENSING FUNDAMENTALS	3
GEOL 4334	GEOGRAPHIC DATA ANALYSIS	3
Minor and General Electives		
Select a minor of at least 18 hours.		18
Select electives sufficeint to complete 120 hours with at least 36 at the 3000/4000-level.		2
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
GEOL 1301	3	GEOL 1302	3
MATH 1324	3	MATH 1308	3
ENGL 1301	3	ENGL 1302	3
Creative Arts	3	Language, Philosophy and Culture	3
CHEM 1441	4	CHEM 1442	4
UNIV 1131	1		
	17		**16**

Second Year

First Semester	Hours	Second Semester	Hours
GEOL 2445	4	minor course[1]	3
HIST 1301	3	PHYS 1442	4
PHYS 1441	4	POLS 2311	3
BIOL 1441	4	HIST 1302	3
Social/Behavioral Science	3	BIOL 1442	4
	18		**17**

Third Year

First Semester	Hours	Second Semester	Hours
GEOL 3443	4	GEOL 3442	4
GEOL 4330	3	GEOL 4331	3
minor course[1]	3	minor course[1]	3
minor course[1]	3	GEOL 3446	4
	13		**14**

Fourth Year

First Semester	Hours	Second Semester	Hours
GEOL 3441	4	GEOL 4334	3
GEOL 4333	3	minor course[1]	3
minor course[1]	3	POLS 2312	3
		General Elective(s)	6
	10		**15**

Total Hours: 120

1 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/)