# Bachelor of Science in Geology to Master of Science in Earth and Environmental Science

## About This Program

Bachelor of Science in Geology to Master of Science in Earth and Environmental Science (Geoscience) Fast Track will enable outstanding senior undergraduate geology students to satisfy degree requirements leading to a master's degree in environmental science while completing their undergraduate studies. This degree is designed for students who plan to work in the geoscience sectors.

### ASSOCIATED PROGRAMS

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

**Geology BS (Environmental Science)**

**Earth and Environmental Science MS (Geoscience)**

## Admissions Criteria

### UNCONDITIONAL ADMISSION

Undergraduate Geology students can apply when they are within 30 hours of completing their BS in Geology degree from the University of Texas Arlington (UTA). They must have completed at least 30 hours of study at UTA with a total GPA of 3.3 and earned an overall GPA of 3.3 or better in all college of science courses as well as Earth and environmental science courses taken at UTA. Additionally, they must have completed 16 credit hours of specified undergraduate Fast Track screening courses at UTA that are listed below and earn a GPA of at least 3.3 in these courses. If one of these courses is transferred from another school it will not be included, and an equivalent course determined by the undergraduate advisor will be used as a Fast Track foundation course. Students must meet any other requirements imposed by the BS in Geology and MS in Earth and Environmental Science program.

Undergraduate Screening Courses Required for Admission into the Fast Track program:

1. GEOL 2445 MINERALOGY
2. GEOL 3454 STATISTICS FOR EARTH AND ENVIRONMENTAL SCIENTISTS
3. Two of the following courses:
   a. GEOL 3441 BIOSTRATIGRAPHY AND LIFE THROUGH TIME
   b. GEOL 3442 SEDIMENTOLOGY AND STRATIGRAPHY
   c. GEOL 3443 STRUCTURAL GEOLOGY
   d. GEOL 3446 PETROLOGY AND GEOCHEMISTRY

**Provisional Admission**

A student may gain provisional admission if, during the semester in which application is made, he or she will complete any remaining courses needed to satisfy prerequisite requirements. Provisional admission will be changed to unconditional admission upon satisfactory completion of remaining requirements. Students failing to meet all requirements at the end of their semester of application will be removed from the Fast Track program. Any credits earned prior to removal from the program will be applied to the undergraduate degree only. None of the other benefits of the Fast Track program will apply. Provisionally admitted students who have been removed from the program may subsequently apply to graduate programs via the normal application process, paying all fees and meeting all relevant admission criteria. Admission will not be automatic as it will be subject to the normal admission practices of the program to which application is made and the Graduate School.

### DENIAL

Students who are not admissible under the conditions specified above shall be denied admission to the Fast Track program. They may apply to graduate programs via the regular application process, paying all required fees and meeting all relevant admission criteria. Admission will not be automatic as it will be subject to the normal admission practices of the program to which application is made and the Graduate School.

## Curriculum

Students in the Fast Track BS-MS Geology program may take three 5000-level GEOL/EVSE electives with a total of 12 credit hours in place of 3000/4000-level undergraduate ENVR/GEOL/DATA/CHEM/BIO electives. These credits can be used to meet the required 120 credit hours and the required 30 credit hours for MS degree at UTA.

| **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<br>& ENGL 1302 | RHETORIC AND COMPOSITION I<br>and RHETORIC AND COMPOSITION II | |
| For Life & Physical Science 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/EES Foundations | | |
| Additional hours required in core | | 4 |
| UNIV 1131 | STUDENT SUCCESS | 1 |
| Communication Competence - pass oral presentation requirement in GEOL 3442, GEOL 3444, COMS 1301, or COMS 1302 or 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 |
| GEOL 3454 | STATISTICS FOR EARTH AND ENVIRONMENTAL SCIENTISTS | 4 |
| **Geology/EES 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 3387 | FIELD GEOLOGY I | 3 |
| GEOL 3388 | FIELD GEOLOGY II | 3 |
| Select at least 2 hours in GEOL, ENVR, or DATA 3000-4000-level electives (excluding GEOL 4331, 4333, 4334, and 4354) | | 2 |
| **Minor and Electives** | | |
| Select a minor of at least 18 hours as required for Biology, Chemistry, Mathematics, or Physics (including two EES Foundations courses) | | 10 |
| General Elective(s) | | 4 |
| **Master's Degree Foundations** | | |
| Select one of the following in engineering (or advisor approved): | | 3 |
| CE 5321 | ENGINEERING FOR ENVIRONMENTAL SCIENTISTS | |
| IE 5321 | ENTERPRISE ANALYSIS AND DESIGN | |
| **Master's Degree Specialization** | | |
| Select 18 hours in GEOL or EVSE 5000-level electives (excluding GEOL 5320, 5454, 4334, and 4354) | | 18 |
| Take two hours in the following seminar: | | 2 |
| GEOL 4199 | TECHNICAL SESSIONS | |
| GEOL 5395<br>or GEOL 5698 | MASTER'S PROJECT (or 5000-level class approved by advisor)<br>THESIS | 3 |
| **Total Hours** | | **141** |

## 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; Biology minors should consult with the Earth and Environmental Sciences undergraduate advisor.

**First Year**

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

**Second Year**

| | First Semester | Hours | Second Semester | Hours |
|---|---|---|---|---|
| | BIOL 1441 | 4 | PHYS 1442 | 4 |
| | POLS 2311 | 3 | POLS 2312 | 3 |
| | PHYS 1441 | 4 | Creative Arts* | 3 |
| | GEOL 2445 | 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 | GEOL 3454 | 4 |
| | **6** | | **14** | | **15** |

**Fourth Year**

| | First Semester | Hours | Second Semester | Hours |
|---|---|---|---|---|
| | Minor course** | 6 | Foundational Component Area* | 3 |
| | General elective(s) | 4 | GEOL 5000 level electives | 6 |
| | GEOL 5000 level elective | 3 | Language, Philosophy and Culture* | 3 |
| | | | Additional 4000 level Geology elective | 2 |
| | **13** | | **14** | |

**Fifth Year**

| | First Semester | Hours | Second Semester | Hours |
|---|---|---|---|---|
| | CE 5321 or IE 5304 | 3 | Electives in 5000-level GEOL or EVSE courses | 5 |
| | GEOL 5199 | 1 | GEOL 5199 | 1 |
| | Electives in 5000-level GEOL or EVSE courses | 8 | GEOL 5395 | 3 |
| | **12** | | **9** | |

**Total Hours: 141**

* See General Core Requirements (https://catalog.uta.edu/academicregulations/degreerequirements/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/)