

# Master of Science in Earth and Environmental Science (Geoscience)

## About This Program

The Master of Science in Earth and Environmental Science Geoscience option is a two year program with specializations in stratigraphy, petrology, paleontology, sedimentology, structural geology, geomechanics, plate tectonics, computer modeling, hydrology, geochemistry and paleoclimatology. Students in this program are prepared for additional graduate work at the PhD level, or for positions in industry and government. Thesis or non thesis options are available. However, all new students are admitted into the non-thesis option. During the first year, students may transfer to the thesis option after obtaining a faculty thesis supervisor. A thesis supervisor is not guaranteed.

## Competencies

1. Upon graduation the student should have gained expertise in their chosen geoscience challenge discipline area.
2. Upon graduation the student should be able to critically evaluate and design in geoscience monitoring and/or models.
3. Upon graduation the student should be able to integrate methodologies found in scientific and engineering disciplines into a multi-disciplinary scientific framework.
4. Upon graduation the student should be able to analyze complex information from geoscience sub-disciplines using written reports and oral presentations to specialists and non-specialists.

## Admissions Criteria

For unconditional admission a student must meet the following requirements:

1. A BS in an earth science discipline with the following courses or their equivalent: mineralogy, petrology, structure, stratigraphy/sedimentology, field geology and geophysics, or paleontology. In addition, one semester of biology, calculus I and II, and a year of chemistry and physics is required.
2. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the graduate admissions.
3. Graduate Record Examination (GRE) scores are used in conjunction with GPA's. For example a person with a GPA below 3.0 will need a GRE score better than average. Masters students who have succeeded in the Earth and Environmental Science s Program typically score higher than the 60th Percentile on the verbal and quantitative portion of the GRE.
4. An applicant whose native language is not English must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section. However, an applicant whose native language is not English with a bachelor's or a master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, TSE or IELTS score for admission purposes.
5. Favorable letters of recommendation from people familiar with the applicant's academic work.

## Curriculum

### Foundations

GEOL 5454	STATISTICS FOR EARTH AND ENVIRONMENTAL SCIENTISTS	4
Select one of the following in engineering (or advisor approved):		3
CE 5321	ENGINEERING FOR ENVIRONMENTAL SCIENTISTS	
IE 5304	ADVANCED ENGINEERING ECONOMY	
Complete two hours in the following seminar:		2
GEOL 5199	TECHNICAL SESSIONS	

### Specialization

Select 15 hours approved by advisor.		15
Select thesis or non-thesis option		6
Non-thesis option		
Select an additional advisor-approved course.		
GEOL 5395	MASTER'S PROJECT	
Thesis option		
GEOL 5698	THESIS	

<b>Total Hours</b>		<b>30</b>
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## 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/>)