Program Description

The Master of Science (MS) in Geosciences degree program prepares students for a wide variety of careers in sustainable earth sciences, clean energy, critical minerals, groundwater, environmental, and other sectors of industry, government and academia. Developed by internationally renowned faculty at the University of Texas at Dallas, the curriculum immerses students in geophysics, geology, hydrology, net-zero fossil and renewable energy, tectonics, earthquakes, structure, sedimentology, remote sensing and GIS, and teaches students about the composition, structure, history and physical properties of the earth and its natural systems.

The program has two options designed to accommodate students’ career aspirations:

- **MS Coursework Option:** This option is designed for students who wish to develop an advanced earth science background through coursework. A research project is required but not a formal thesis. Most students start as MS Coursework.

- **MS Thesis Option:** This option is designed for advanced students interested in an in-depth earth science research experience, especially for those who might be interested in further research at the doctoral level. Students in the thesis option must select an area of research, an agreed faculty research supervisor, and a thesis supervisory committee. Most MS Thesis students start in the MS Coursework program, establish a strong coursework performance record, and discuss thesis research options with potential faculty supervisors in order to convert to the MS Thesis program.

The Geosciences program introduces students to research opportunities and a high-tech infrastructure and prepares them for future success in energy and environmental sectors, university research labs and local, national and international governmental organizations.

Benefits

The Geosciences MS degree program ensures that students gain a broad understanding of the earth sciences, apply their knowledge and analytical skills to create effective and novel solutions to practical problems, and communicate and work effectively in collaborative environments.

Other benefits include:

- **World-Class Faculty:** The program is led by faculty of the School of Natural Sciences and Mathematics who are widely cited experts in their respective fields.

- **Comprehensive Curriculum:** Courses in the Geosciences master’s program will introduce students to new ideas, technologies, and competencies while preparing them to succeed in competitive, ever-changing career paths.

- **Lab Experience:** Lab work will introduce students to fundamental and advanced concepts as well as state-of-the-art research techniques.

- **Facilities:** The Department of Geosciences is located in the Research Operations Center (ROC) building and is home to state-of-the-art geology, geophysics and computational labs for advanced research in earth and environmental sciences.
• **Location**: Situated in the greater Dallas region—recently rated by *Forbes* magazine as the #1 “Best City for Jobs”—UT Dallas provides students with easy access to employers and internship opportunities, not to mention a large and supportive alumni population.

**Career Opportunities**
Graduates of the Geosciences MS degree program have gone on to pursue a wide variety of professional careers, such as:

- Energy Geoscientist
- Environmental Scientist
- Groundwater Hydrologist
- Petroleum Geologist or Geophysicist
- Geotechnical Engineering
- Exploration Geophysicist
- Field Geologist
- Geoscience Consultant
- Geoscience Lab Technician
- Geohazard Safety
- Science Communicator
- Earth Science Educator

**Marketable Skills**
Up until recently, when the MS degree in the Geosciences was clearly the “degree of choice,” an advanced degree in Geosciences allowed the degree owners to pursue opportunities in a wide range of geoscience-related professions, including the extractive C-based energy industry, but ALL of that has changed. Opportunities in the general realm of environmental systems remain very strong. In addition, with an advanced degree, degree owners can expand their horizons to different realms, including business and law. Upon successful completion of the MS in Geoscience degree program, UT Dallas graduates will expand their prior training and education with specialist knowledge and advance their understanding in relevant scientific areas including, but not limited to, geophysics, tectonics, hydrology, environmental geoscience, and geoscience education. Graduates’ skills include:

- Broad and expansive knowledge of geophysics, earth history, environmental geochemistry, tectonics.
- Methodological skills in experimental and computational techniques applied to research questions in select aspects of the geosciences.
- Ability to work in teams in diverse settings under a range of circumstances.
- Ability to communicate scientific ideas and concepts in oral and written form.
- Advanced ability to apply critical thinking and quantitative skills to solve complex problems.

**Application Deadlines and Requirements**
Please take note of all application deadlines and visit the Apply Now webpage to begin the application process. See the Department of Geosciences graduate programs website for additional information.

Applicants to the Geosciences master’s degree program should have:

- A bachelor’s degree in Geosciences or its equivalent, including courses in physics, mathematics, chemistry and/or biology. Students whose undergraduate training is in a science other than geology or geophysics are admitted to the program when their previous course work complements or supports their intended research interests.
- A grade point average (GPA) of at least 3.0 on a 4.0 scale.
- Test Scores: A combined score of no less than 300 on the Verbal and Quantitative portions of the GRE exam is advisable based on our experience with student success in the programs. Additional standards may apply to applicants requesting Teaching Assistantships.
- International applicants must submit a TOEFL score of at least 80 on the internet-based test. Scores must be less than two years old. See the Graduate Catalog for additional information regarding English proficiency requirements for international applicants.
- Letters of Recommendation: Applicants must submit three (3) letters of recommendation from individuals able to judge the candidate’s potential for success in the master’s degree program.