M.S. in Geological Sciences

Overview

Geological Sciences is the multidisciplinary department of the College of Sciences, and our research uses mathematics, physics, chemistry, biology, statistics, and computer modeling to address some of the most challenging interdisciplinary questions about the past, present and future state of the earth system. Our department is equipped with computer and laboratory facilities for calculation, visualization, and experimentation. A good number of our students are funded by graduate assistant or research assistantships, or teaching assistantships.

Admission Requirements

In addition to the materials required of all Master's program applicants by the UTEP Graduate School, applicants for the M.S. in Geological Sciences must provide

1. Three letters of reference
2. An official transcript, with the four-year baccalaureate degree posted, from the degree-granting institution and copies of transcripts for all other relevant upper-division and graduate work at accredited U.S. institutions or equivalent work and degrees at foreign institutions.
3. A personal statement/essay explaining the applicant's motivation for pursuing the M.S. in Geological Sciences and their qualifications and preparation for graduate study.
4. GRE is not a requirement.
5. Applicants from countries where English is not the first language are required to demonstrate English proficiency. Please consult the graduate school (http://catalog.utep.edu/admissions/graduate/graduate-student/) website for required scores.

All admission requirements will be reviewed holistically to assess the potential of the applicant. We strongly encourage applicants to contact Geological Science faculty for research opportunities.

Degree Requirements

All University-wide UTEP requirements for Master's degrees and graduate students progress will apply. Graduate students are required to enroll in the GEOL 5101 Graduate Seminar for four semesters.

Students must complete at least 30 semester hours, including three semester hours each of Thesis I and Thesis II, which may not be taken concurrently. No more than six semester hours can be in Directed Study coursework and no more than nine semester hours can be in approved undergraduate coursework.

Thesis

A written thesis, approved by the student's thesis committee, is required for graduation. The subject of the thesis is to be selected in consultation with the student's thesis advisor, and must be approved by the student's thesis committee.

Before enrolling in Thesis I, and prior to the start of the third full semester, all students must successfully complete a written thesis proposal. The thesis proposal is successfully defended after it has been signed and approved by their thesis committee and circulated to and approved by the Department of Geological Sciences faculty. The student's thesis committee shall be approved by the Department of Geological Sciences Graduate Program Committee.

The student is required to successfully defend the thesis in an open meeting under the supervision of his or her thesis committee. A draft copy of the thesis, approved by the student's thesis advisor, must be submitted to the thesis committee 14 days before the defense.

Degree Plan

Required Credits: 30

Code	Title	Hours
MS in Geology (All courses require a grade of C or better)		
Required Courses:		
GEOL 5101	Graduate Seminar (Student must enroll in Graduate Seminar every semester in residence)	1
Graduate Course Work:		
Select twenty-three hours from the following:		23
GEOL 5101	Graduate Seminar	
GEOL 5115	Selected Topics in Geol Scien	
GEOL 5162	Directed Study in Geology	
GEOL 5215	Selected Topics in Geol Scienc	

GEOL 5262	Directed Study in Geology
GEOL 5289	Graduate Research in Geol Sci
GEOL 5303	Computer Appl in Earth Sci
GEOL 5304	Earth Structure
GEOL 5305	Earth Materials
GEOL 5308	Planetary Geology
GEOL 5309	Mineral Resrcs, Econ & Environ
GEOL 5310	Intro Entrepreneurial Geosci
GEOL 5315	Selected Topics-Geological Sci
GEOL 5317	Hydrogeology
GEOL 5318	Petroleum Geology
GEOL 5320	Environmental Tracers in Water
GEOL 5321	Introduction to GIST
GEOL 5322	Advanced GIST
GEOL 5323	Spat Analysis Earth/Env Sci
GEOL 5324	Machine Learning in Geoscience
GEOL 5343	Isotope Geology
GEOL 5344	Advanced Petrology
GEOL 5362	Directed Study in Geology
GEOL 5363	Sandstone Petrography
GEOL 5364	Sedimentary Depositional Envir
GEOL 5365	Basin Analysis
GEOL 5375	Quantit Techniq Geological Sci
GEOL 5376	Low Temperature Geochemistry
GEOL 5378	Global Biochemical Cycles
GEOL 5381	Paleoclimatology
GEOL 5389	Graduate Research in Geol Sci
GEOL 5397	Geol/Mineral Resources Mexico
GEOL 5401	Fundamentals of Earth Science
GEOL 5402	Fundmtls/Fld Meth in Earth Sci
GEOL 6105	Directed Study in Geology
GEOL 6115	Adv Topics in Geological Scien
GEOL 6205	Directed Study in Geology
GEOL 6296	Doctoral Research in Geol Sci
GEOL 6305	Directed Study in Geology
GEOL 6315	Adv Topics in Geological Scien
GEOL 6320	
GEOL 6321	
GEOL 6330	Sandstone Petrography
GEOL 6332	Carbonate Petrogrph & Dep. Env
GEOL 6334	Sedimentary Depositional Env
GEOL 6336	Sequence Stratigraphy
GEOL 6340	Hydrogeology
GEOL 6342	Environmental Tracers in Water
GEOL 6396	Doctoral Research in Geol Sci
GEOP 5163	Directed Study in Geophysics
GEOP 5263	Directed Study in Geophysics
GEOP 5306	Atmospheric Processes
GEOP 5336	Digital Image Processing
GEOP 5352	Geophysical Inverse Theory
GEOP 5353	Reflection Seismic Data Proces
GEOP 5354	Seismology

GEOP 5356	Topics in Geophysics	
GEOP 5357	Well Logging	
GEOP 5361	Plate Tectonics	
GEOP 5363	Directed Study in Geophysics	
GEOP 5460	Geop App-Digital Signal Proces	
GEOP 6110	Directed Study in Geophysics	
GEOP 6210	Directed Study in Geophysics	
GEOP 6310	Directed Study in Geophysics	
GEOP 6350	Advanced Seismology	
GEOP 6352	Advanced Seismic Methods	
Thesis:		
GEOL 5398 & GEOL 5399	Thesis and Thesis	6
Total Hours		**30**