

ADMISSION

Who should apply?

Students looking for a prestigious graduate program in the geosciences are encouraged to apply. Admission to the graduate program is competitive, based on academic merit and research focus.

Applicants must have the following to be considered:

- Bachelor's degree from an accredited U.S. institution or the equivalent from a foreign institution
- Grade Point Average (GPA) of at least 3.0 on all undergraduate work (or last half degree requirement) and a 3.0 GPA or better on any graduate work completed
- International applicants must have at least a 3.0 GPA or equivalent on all college-level work attempted and must receive a score of 550 (paper-based) or 213 (computer-based) or 79 (Internet-based) on the TOEFL exam -OR- a score of 6.5 or above on the IELTS exam

*Due to the nature of competitive admission, meeting the minimum requirements does NOT guarantee admission to the program. Recent inbound students had an average GPA of 3.7 and GRE of 316.

Application Deadlines

Fully completed applications must be submitted online to the LSU Graduate School by the following deadlines:

- January 1:** Application deadline with funding consideration for the FALL semester
- October 1:** Application deadline with funding consideration for the SPRING semester

A "Fully Completed Application" includes the following:

- An online application to the LSU Graduate School including statement of purpose (required), CV/resume (optional), and writing sample (optional)
- All official transcripts from all universities attended
- Official TOEFL or IELTS scores (international applicants only)
- Three (3) letters of recommendation submitted via the online application for admission

Ready to Apply?

Applications to the LSU Graduate School are available online at: applygrad.lsu.edu/apply

FINANCIAL AID

The Department of Geology & Geophysics is proud to offer scholarships and awards to outstanding students. The department nominates and selects students for awards during the academic year. Each award carries specific requirements that must be met and maintained throughout the year.

LSU

Department of Geology & Geophysics

FIND OUT MORE

LSU Department of Geology & Geophysics
geology.lsu.edu

College of Science
science.lsu.edu

Graduate School
gradschool.lsu.edu

Residential Life
lsu.edu/reslife

Financial Aid & Scholarships
lsu.edu/financialaid



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MINERALOGY, PETROLOGY, AND SOLID EARTH PROCESSES

From the ocean floor to mountain tops, Earth's surface to the deep interior, G&G researchers investigate minerals, rocks and fluids to decipher geologic information contained in their chemistry over 4 billion years of Earth's history. Field studies are combined with state of the art analytical and theoretical techniques to extract embedded information.



STRATIGRAPHY, GEOLOGIC TIME, AND CLIMATE

Our faculty date and investigate the formation and age of sedimentary records using sedimentary, geochemical, geochronological, magnetic and palynological methods. This work includes investigations of paleoclimate records preserved in sedimentary basins, on continental margins, and extreme environments like Antarctica. Investigations of modern climate and surface processes also contribute this work.



SEDIMENTARY SYSTEMS

With an internationally recognized, diverse faculty dedicated to studying global processes, we investigate sedimentary formations and records using lithologic, geophysical, geochemical, and palynological methods to interpret the sedimentary record preserved in basins, continental margins, and even on Mars. We reconstruct sediment transport processes and attempt to understand the primary controls over sediment generation in source areas and its transport to the final depositional sinks.



GEOPHYSICS

Fieldwork and computer programming combine to study Louisiana coastal land loss, karstic regions of southwestern Georgia and the Ozarks, and earthquake and volcanic hazards in Asia, Italy and U.S. Studies use industry data, ground-penetrating radar, electrical resistivity and state-of-the-art seismic equipment in innovative research with societal impacts. Novel approaches with lab and field acoustics are used to characterize Earth and Mars soils.



PALEOENVIRONMENTAL RECONSTRUCTION

This research group focuses on reconstructing past environments and climate via multi-proxy analyses. To understand how the sedimentary record preserved in basins may be used to reconstruct evolving climate and continental environments, this group uses various disciplines such as micropaleontology, sedimentology, modeling, geochemistry, magnetic susceptibility and seismic, on locations all around the world.



STRUCTURE, TECTONICS, AND LANDSCAPE EVOLUTION

This diverse group focuses on understanding how solid Earth forces control the uplift and erosion of mountains chains, the generation and recycling of continental crust, and feedbacks between surface processes and the structural evolution of the mountains over millennial to millions of year timescales through field observations, geo- and thermochronology, proxy records, and numerical modeling studies.



PLANETARY SCIENCE

We explore planetary processes from the weathering of surfaces to the depths of igneous evolution. We use data returned from satellites and in situ missions at other planets, while terrestrial field analogs serve as references (e.g., Antarctic deltas). We are also advancing geophysical and nuclear spectroscopy methods for planetary resource prospecting with NASA centers.



POLAR STUDIES

Our faculty investigate ongoing changes to polar ecosystems, periglacial and subglacial hydrology, perennially ice-covered lakes, the retreat of the West Antarctic Ice Sheet since the last glacial maximum, and changes in vegetation and marine algae that were a consequence of long-term climate cooling. This work is carried out on different time scales, both in the field and lab, and in marine and terrestrial settings.



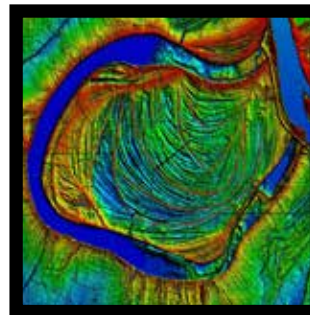
GEOCHEMISTRY

The G&G geochemistry group is renowned for research in theoretical, computational, experimental, and observational fields. Research projects cover the entire spectrum of geologic time from Hadean to Anthropocene and range from molecular to planetary scales of problems. The department houses state-of-art stable isotope, trace-element and micro-analytical facilities and has access to high-performance computers on campus.



HYDROLOGY/HYDROGEOLOGY

The hydrology-hydrogeology group focuses on diverse environments from flow beneath perennially frozen ground to flow through caves and karst to flow near magma chambers. We are linked by our interest in quantitatively determining temporal and spatial changes fluid, heat, and mass fluxes. Our projects are field-based and computationally intensive.



ENERGY

The group is renowned for research using theoretical, computational, experimental, and observational approaches. Research areas cover hydrothermal systems, hydrocarbon systems, earth materials, and nuclear waste disposal. Research topics and educational activities include heat and fluid-rock interaction in geothermal systems, sedimentology and petroleum systems, first-principles modeling of materials, IBA competition, coupling of stratigraphy and environment.

The Department of Geology & Geophysics at Louisiana State University has an international presence in educating and preparing students for careers in the geosciences. Our continued success is derived from the experience of our dedicated faculty along with campus collaborations with petroleum engineering, coastal and environmental studies, and computational technology. We are located in Baton Rouge, Louisiana, the capital of the state and a city rich with unique cultural and artistic experiences. Our students enjoy the benefits of studying at a comprehensive research university combined with the one-of-a-kind atmosphere that only Louisiana can provide.



ALUMNI ABOUND

The Department of Geology & Geophysics provides an expansive education for students with a wide variety of career goals. Our graduates and alumni succeed in a multitude of areas within the oil and gas industry (e.g., ExxonMobil, BP, Chevron), mining (e.g., Indigo Minerals), public sector (e.g., Bureau of Ocean Energy Management, Louisiana Geological Survey, and U.S. Geological Survey), and academia.

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