

DEPARTMENT OF GEOLOGY AND GEOPHYSICS

Geology

The field of geology includes the scientific study of all aspects of the solid Earth and the fluids within it, including the fundamental processes that shape it and the stewardship of its resources that benefits society. The undergraduate curricula in geology foster critical thinking, and the application of scientific skills to the study of Earth materials (rocks, minerals, fossils, structures, landforms and subsurface fluids) and geologic processes. Courses provide a broad background in geology, emphasize knowledge transfer from other sciences to geologic problems and emphasize hands-on application of knowledge through laboratories and field trips and promote application to practical problems in environmental management and energy science and transition.

The Department of Geology and Geophysics offers two undergraduate programs in geology, the Bachelor of Arts and the Bachelor of Science. The BS program is appropriate for students seeking careers as geologists or preparing for graduate school in geology, whereas the BA program is designed for students wishing to combine geology with other disciplines. The department also offers a Certificate in Environmental and Engineering Geology.

To remain in satisfactory academic standing, students must maintain a 2.0 or better GPA in all technical courses (geology, geophysics, chemistry, math and physics).

Geophysics

Geophysics includes all areas of scientific inquiry that deal with the physical state of Earth and other planets and the dynamic processes that act on and within planetary bodies. The Bachelor of Science in Geophysics is for students who wish to combine a proficiency in mathematics with an interest in Earth. The objective of this program is to develop a physically-motivated approach to the study of Earth phenomena, with an emphasis on collection and analysis of geophysical data for probing and imaging the Earth's interior. Graduates will be well-prepared for careers in the energy and environmental industries, and for advanced study at top-ranked graduate programs.

To remain in satisfactory academic standing, students must maintain a 2.0 or better GPA in all technical courses (geology, geophysics, chemistry, math and physics).

Minors in Geology and Geophysics

The Department of Geology and Geophysics offers a minor in Geology and a minor in Geophysics. Minors provide opportunities for broadening a student's background and tailoring the curriculum to specific career goals. A minor in Geology or Geophysics may be especially beneficial to students majoring in fields that deal directly or indirectly with geological processes, such as agriculture, anthropology, archaeology, architecture, business, education, engineering, and soil science.

Certificate in Environmental and Engineering Geology

The certificate in Environmental and Engineering Geology provides students with a solid foundation to understand the geological processes that shape and impact the environment, resources, and land use. Through

the required and elective courses, students learn theories, processes and mechanisms and gain hands-on experience with laboratory and field methods in both environmental and engineering geology.

Faculty

Bapst, David W, Instructional Assistant Professor
Geology & Geophysics
PHD, University of Chicago, 2013

Becker, Mauro R, Professor of the Practice
Geology & Geophysics
PHD, The University of Texas at Austin, 1996

Belanger, Christina L, Associate Professor
Geology & Geophysics
PHD, University of Chicago, IL, 2011

Benavides Iglesias, Alfonso, Lecturer
Geology & Geophysics
PHD, Texas A&M University, 2007

Chen, Xiaowei, Associate Professor
Geology & Geophysics
PHD, University of California, San Diego, 2013

Chester, Frederick M, Professor
Geology & Geophysics
PHD, Texas A&M University, 1988

Chester, Judith S, Professor
Geology & Geophysics
PHD, Texas A&M University, 1992

Donovan, Arthur D, Professor of the Practice
Geology & Geophysics
PHD, Colorado School of Mines, 1985

Duan, Benchun, Professor
Geology & Geophysics
PHD, University of California at Riverside, 2006

Everett, Mark E, Professor
Geology & Geophysics
PHD, University of Toronto, 1991

Grossman, Ethan L, Professor
Geology & Geophysics
PHD, University of Southern California, 1982

Kitajima, Hiroko, Associate Professor
Geology & Geophysics
PHD, Texas A&M University, 2010

Knappett, Peter S, Associate Professor
Geology & Geophysics
PHD, University of Tennessee at Knoxville, 2010

Kronenberg, Andreas K, Professor
Geology & Geophysics
PHD, Brown University, 1983

Lamb, William M, Professor
Geology & Geophysics
PHD, University of Wisconsin, Madison, 1987

Laya Pereira, Juan Carlos, Associate Professor
Geology & Geophysics
PHD, Durham University, United Kingdom, 2012

Lenz, Brandi, Instructional Assistant Professor
Geology & Geophysics
PHD, Ohio State University, 2021

Marcantonio, Franco, Professor
Geology & Geophysics
PHD, Columbia University, 1994

Miller, Brent V, Professor
Geology & Geophysics
PHD, Dalhousie University, Canada, 1997

Nana Yobo, Luscalors Lucien, Assistant Professor
Geology & Geophysics
PHD, University of Houston, 2021

Newman, Julie, Professor
Geology & Geophysics
PHD, University of Rochester, 1993

Perez, Nicholas D, Associate Professor
Geology & Geophysics
PHD, The University of Texas at Austin, 2015

Pope, Michael, Professor
Geology & Geophysics
PHD, Virginia Tech, 1995

Raymond, Anne L, Professor
Geology & Geophysics
PHD, University of Chicago, 1983

Reece, Julia S, Associate Professor
Geology & Geophysics
PHD, The University of Texas at Austin, 2011

Sun, Yuefeng, Professor
Geology & Geophysics
PHD, Columbia University, 1994

Zhan, Hongbin, Professor
Geology & Geophysics
PHD, University of Nevada, Reno, 1996

Zhang, Jin, Associate Professor
Geology & Geophysics
PHD, University of Illinois at Urbana-Champaign, 2014

Majors

- Bachelor of Arts in Geology (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/geology-ba/>)
- Bachelor of Science in Geology (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/geology-bs/>)
- Bachelor of Science in Geology and Master of Ocean Science and Technology, 5-Year Degree Program (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/bs-geol-most/>)
- Bachelor of Science in Geology and Master of Science in Geology, 5-Year Degree Program (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/geology-bs-ms/>)

- Bachelor of Science in Geophysics (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/geophysics-bs/>)
- Bachelor of Science in Geophysics and Master of Science in Geophysics, 5-Year Degree Program (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/geophysics-bs-ms/>)

Minors

- Geology Minor (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/geology-minor/>)
- Geophysics Minor (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/geophysics-minor/>)

Certificates

- Environmental and Engineering Geology Certificate (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/geology-geophysics/environmental-engineering-geology-certificate/>)