

Chairman's **W**elcome

Welcome! The Department of Geological Sciences is a group of 38 active faculty, lecturers, support personnel, and most importantly over 100 enthusiastic and talented undergraduate and graduate students. We offer a major in geological sciences with a Bachelor of Science or Master of Science degree. Students entering this program can choose one of the following emphases, depending on their specific interests: general geology, engineering geology, geochemistry, geophysics, hydrogeology, marine geology, paleontology or geoscience education. San Diego State University is an academically rich, urban university that provides endless possibilities for students. SDSU is a place to challenge yourself, to take your education into your own hands and carve out your future. We will help to make your undergraduate education more meaningful and personal, fostering closer interaction with faculty members and fellow students. Learning does not just take place in the classroom, but also by the opportunities that arise with involvement elsewhere on campus, in the laboratory, in field research, and in the local community. If you are considering a science course, interested in pursuing a major, or contemplating graduate school, feel free to come by and visit our Department.



Dr. Gary H. Girty
Department Chair

Geological Sciences



Phone: 619-594-5586

www.geology.sdsu.edu



SAN DIEGO STATE UNIVERSITY
San Diego, CA 92182-1020



DEPARTMENT OF GEOLOGICAL SCIENCES

San Diego State University
5500 Campanile Dr.

Department of Geological Sciences

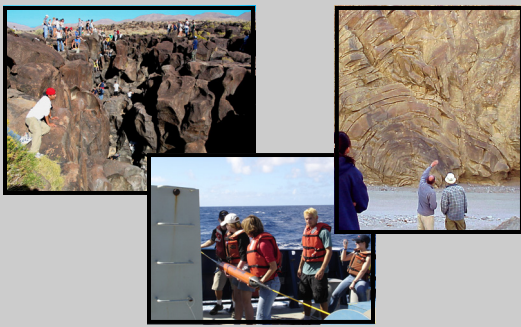
**Geoscience
Graduate
Program**

**Master of
Science**



**SAN DIEGO STATE
UNIVERSITY**





Our Program

Our program aims to help students develop skills and acquire knowledge necessary for work as leaders in research, professional practice, and teaching in Geoscience

1. Independent research:

We strive to teach students how to define scientific problems, analyze and interpret data, communicate results, and argue in support of conclusions. As in most graduate programs, we emphasize research work as the best means for developing skills of critical thinking and self-motivation.

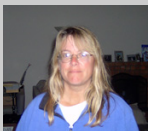
2. Coursework:

We strive to offer courses at the graduate and advanced undergraduate levels that efficiently communicate state-of-the-art information on topics in Geoscience

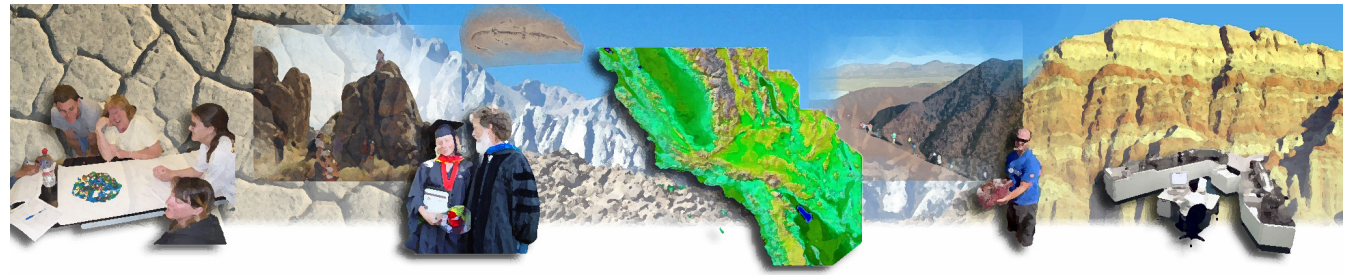
3. Teaching:

Many of our students have the opportunity to serve as teaching assistants. We view TA's as apprenticeships in teaching. They provide students with the opportunity to refine their own understanding of Geoscience, and to organize and present coherent explanations.

Our department encourages contact of potential students with possible thesis advisors. Feel free to either contact me or other faculty members regarding possible class-work or research interests.



Kathryn W. Thorbjarnarson
Graduate Advisor



MS Research Programs

General Geology:

Vic Camp – volcanology, petrology, tectonic control of magmatic systems

Clive Dorman – physical oceanography, air-sea interaction, marine meteorology

Eric Frost – geologic imaging, seismic reflection profiling, immersive visualization, telecommunications in earth science

Gary Girty – processes controlling the compositions of sandstones and argillites, sedimentological and structural origins of Paleozoic/Mesozoic rocks of the western Cordillera

Barry Hanan – igneous/metamorphic petrology, isotope geochemistry

David Kimbrough – geochronology, isotope geology, petrology, tectonics.

Jared Morrow – Middle Paleozoic depositional history and event stratigraphy; geologic record of bolide impacts; patterns and processes

Aaron Pietruszka – petrology and geochemistry of active volcanoes

Earthquake Science and Geophysics

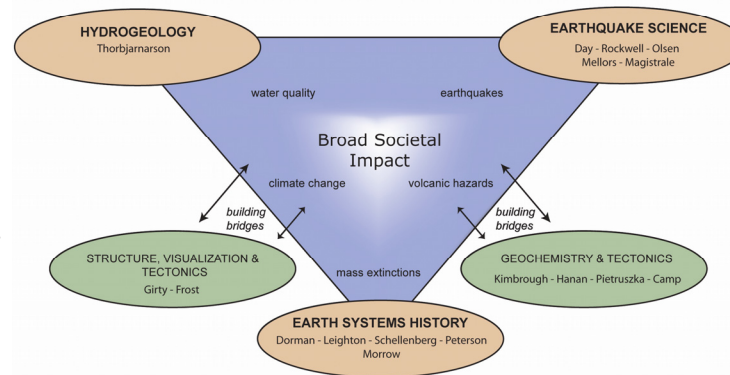
Steve Day – seismology, source dynamics, earthquake strong motion, explosion seismology

Kim Olsen – seismology, 3-D simulation of wave propagation using finite differences, strong ground motion and site amplification, parallel and high-performance computing, visualization and animation

Rob Mellors – seismology, signal processing, synthetic aperture radar

Tom Rockwell – tectonic geomorphology, neotectonics, soils stratigraphy, and the earthquake histories of major faults

Research conducted by faculty in the Department of Geological Sciences addresses some of the most challenging problems facing society today



Hydrogeology

Kathryn Thorbjarnarson – groundwater and surface water interactions, nutrient loadings in watersheds, laboratory and computer simulations of fate and transport of contaminants

Paleontology

Lindsey Leighton – paleoecology of marine invertebrates, functional morphology, Paleozoic brachiopods

Stephen Schellenberg – paleobiology and paleoecology of invertebrates and protists, Mesozoic and Cenozoic paleoceanography

More Information

Visit the Department web site:
www.geology.sdsu.edu

Or call and visit our Department

Dr. David Kimbrough, Undergraduate Advisor 619-594-1385

Dr. Kathy Thorbjarnarson, Graduate Advisor 619-594-1392

Dr. Gary Girty, Department Chair 619-594-2552

SDSU
GEOLOGICAL SCIENCES

San Diego State University
5500 Campanile Dr.
San Diego, CA 92182-1020
GMCS Building 237

Phone: 619-594-5586
Fax: 619-594-4372
Email: Department.Office@geology.sdsu.edu

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