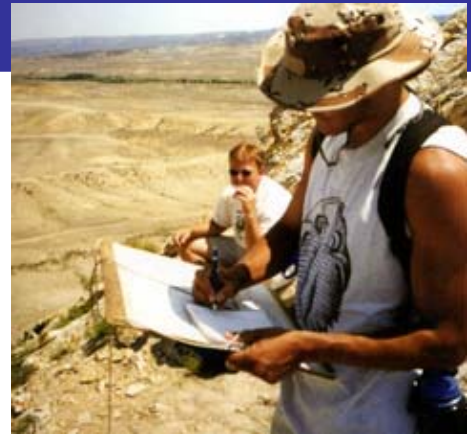


UB'S DEPARTMENT OF GEOLOGY

When Sir Charles Lyell visited the falls of Niagara in 1841, accompanied by State Geologist James Hall, he marvelled that New York was essential viewing to anyone who would understand the Earth's early history. Using the recession rate of the falls, he calculated the first numerical constraint on the Earth's age. The UB Department of Geology carries on Lyell's tradition at the source of American geology. As a nationally and internationally known center for research and scholarship, UB's Department of Geology is a vital node of intellectual activity on campus awarding approximately 20 undergraduate and 15 graduate degrees per year. The department's 13 full-time professors bring together award-winning research expertise and strong commitment to teaching, providing a broad, rigorous and innovative curriculum.



Areas of specialty research in the Department of Geology include: Environmental Geosciences, Volcanology, Climate Change, Ecology and Evolution, and Integrated Tectonics and Stratigraphy. Excellence in Volcanology distinguishes the Department of Geology at both international and national levels. Department accomplishments include a near doubling of grant support in the past five years to over \$1.5 million/year, a level comparable to larger benchmark departments; and graduating student job placement rates of over 90%, both of these measures reflecting the excellent in-school training that our students receive.

The Department's popular Geology Field Camp Summer Program provides undergraduate students with the unique opportunity to spend four weeks at four different physiographic and geological localities in the U.S. Students who have taken part in the Field Camp Program often describe their experiences as the most rewarding in their academic careers. The program plays a central role in developing the practical experience and analytical skills students need to become successful geologists.

The Department's acclaimed interdisciplinary *Center for Geohazards Studies* examines both natural hazards and human-induced hazards within a common framework of risk analysis and mitigation. With geohazards threatening millions of people around the globe, the activities and scholarship of the Center seek to reduce the threats to health and loss of life resulting from geohazards. Through the Center, the Department of Geology encourages and benefits from a vibrant exchange of ideas, questions, and methods of analysis across a broad community of scholars on campus. At UB, geology is studied and researched by individuals and research teams while nurtured and developed within a vibrant and cohesive community.

Two major initiatives arising from the Geohazards Center will help revolutionize hazards training. VHub (Volcano-Hub, visit vhub.org) is a global effort by volcanologists patterned after the hugely successful nanohub.org, the central clearinghouse for the nanotechnology community. VHub seeks to provide volcanic hazards researchers and professionals around the globe with the data and computational tools necessary to save lives and preserve valuable infrastructure. INVOGE is a multi-institution educational infrastructure, with sites in the U.S., France and Italy, that will train international geohazards professionals while earning dual-university Masters degrees.

OUR NEXT FIVE YEARS

INFRASTRUCTURE SUPPORT

The most pressing need in the department is replacement of the *petrographic microscopes* for *Mineralogy* and *Petrology*. Currently, the department has only three functioning scopes from the old supply. Through generous alumni gifts, the department has already purchased four Leica microscopes for student use and one Wards teaching microscope – the total cost to the department has so far been about \$20,000. Leica makes a fantastic student microscope with everything students need, in a design that keeps all the accessories and the power cord securely attached to the 'scope itself. Furthermore, the Leica microscope body is designed so that things can't be bumped, jiggled, or accidentally broken; these are made to stand the test of time. The department hopes to build its student microscopes up to twelve in increments over the next five years. Each new 'scope will be hooked up to a screen for projection so that students and instructors can be sure they are looking at the same mineral grain.



Continued alumni generosity will help us to acquire new microscopes each year over the next several years. Every \$4000 brings in a new microscope.

STUDENT SUPPORT

As a major engine of regional economic development, UB and its graduate students are vital to the economic growth and development of the area. Support is needed to maintain the student teaching and research stipends at a competitive level, especially for recruitment of a strong in-coming class. Undergraduate students at UB face a gap between their ability to pay for college and the cost of attending, even with financial aid and family support. Lower-income students face the largest affordability gap, and are forced to cut expenses or bring in extra income by working more, which can negatively impact academic performance and prevent participation in enriching activities.

Graduate Student Fellowships and *Postdoctoral Fellowships* provide financial aid for graduate students conducting research or teaching. A research-focused university like UB depends on the talented students that are attracted to enroll in its graduate programs. Supporting *Graduate Student and Post Doctoral Fellowships* helps recruit the best students and top faculty to the department, improves the quality of research opportunities, and increases the prestige of the program and of the College and University. Our goal is to double the amount of funds that we can offer as “top-off” scholarships to incoming graduate students and post-docs in the next five years to ensure that the department remains competitive with its peers.

Undergraduate Scholarships and *Student Awards* allow the Department of Geology to give talented, deserving students the opportunity to receive a high-quality college education. With rising costs for running the annual Geology Field Camp Program, the Department finds it necessary to increase participant fees often, sometimes making it difficult for our best and brightest to attend camp. Through *Field Camp Scholarships*, promising



students receive the vital funding they need to attend field camp and gain invaluable hands-on mapping experience that prepares them for their professional life. We hope to increase our field camp and other departmental scholarship funds for undergraduates by 50% over the next five years, to ensure that students can continue to attend field camp as part of their undergraduate experience, and to continue to do our share to send students to graduate school with some firm recognition of their achievements.

SUPPORT FOR GEOSCIENCE INITIATIVES

A dedicated group of alumni and friends of the College of Arts and Sciences are currently working to create and increase funding for the following endowments in the Department of Geology:

- **Marcellus Shale Institute**
- **Endowed Professorships**
- **Endowed Post Doctoral Fellowships in Geohazards**

The ***Marcellus Shale Institute*** is a dream that the department is working to realize in cooperation with its Alumni Board. The Institute would provide a neutral, rational voice for gas exploration in New York state. Located in the heart of the Marcellus play, the UB Department of Geology is uniquely situated to bring together exploration, drilling, regulatory and environmental concerns to enable rational study and discussion of gas development. Please consider becoming a part of this vision.

Endowed funds play a vital role in enhancing the quality of education at UB, and ensuring a stable base of resources over time. Distributions from invested endowed funds, which grow over time, support a wide variety of initiatives including professorships, scholarships, research projects and program development. By creating an endowment gift, a donor can permanently name a facility, professorship or scholarship, allowing the University to recognize the gift in perpetuity. The Department of Geology is particularly interested in endowed professorships to help with faculty retention, and endowed post-doctoral fellowships in geohazards to provide a boost to research productivity and international recognition.

Planned giving is a set of philanthropic tools that can advance your financial objectives while supporting UB's. Through charitable planned giving you can make a significant impact on the Department of Geology. The flexibility and advantages of planned giving allow donors to make a present-day commitment through a bequest, charitable gift annuity, charitable trust, or other financial vehicles designed to maximize tax savings and provide income benefits to donors. The College of Arts and Sciences welcomes the opportunity to personally meet with prospective donors to explore the multitude of flexible, planned giving options.

Some donors prefer to earmark their annual gift to the College of Arts and Sciences for a specific purpose like departmental scholarships, fellowships or lecture funds. ***Annual restricted giving*** provides a philanthropic option for a donor who is not prepared to create an endowment, but would like to support the start up costs of a new funding opportunity. Through annual restricted giving,

important student and faculty support initiatives can be funded on a year-to-year basis, with multi-year commitments being encouraged.

We hope that you will consider supporting UB's Department of Geology. Your gift is an investment in our students, our faculty, and in the impact that Department will continue to have locally and globally. Should you have any questions, please contact Deborah McKinzie, Assistant Vice President of Constituent Development at 716.645.6000 ext. 1503 or email at mckinzie@buffalo.edu.

We offer our heartfelt thanks for your support.