

EXPLORATIONS in SCIENCE RESEARCH

An Undergraduate Summer Program

June 15–23, 2013

University of California, Berkeley

Applications due March 29th, 2013

Applications and Reference Forms:

<http://scienceconnections.berkeley.edu>

Organizers:

Professor Inez Fung,
Earth and Planetary Science



photo by Bonnie Azab Powell / UC Berkeley

2013 is the
International Year for Mathematics of the Earth

Our planet is the setting for dynamic processes of all sorts, including the geophysical processes in the mantle, the continents, and the oceans, the atmospheric processes that determine our weather and climates, the biological processes involving living species and their interactions, and the human processes of finance, agriculture, water, transportation, and energy. The challenges facing our planet and our civilization are multidisciplinary and multifaceted, and the mathematical sciences play a central role in the scientific effort to understand and to deal with these challenges.* *mpe2013.org



photo by Elizabeth Rookstool

In the Explorations in Science Research workshop, students will learn about new research, instruments, data, and analytic tools that are producing results at the nexus of science, public understanding and policymaking.

Importantly, students will get a chance to work with data. The advent of enormous repositories of information presents us with an interesting challenge: how can we represent and interpret such complex, abstract and often socially important data? During this workshop, we will focus on the (unsolved) puzzle of the contemporary carbon cycle,

This seven day workshop is designed so that students learn how earth & planetary scientists, approach large, complex problems. Students will gain a basic understanding of computing and visualization tools.

Students will receive support to cover travel expenses to attend the workshop as well as full room and board. Only US citizens and permanent residents will be considered.

Applicants are expected to have some basic quantitative skills, including a freshman or sophomore level background in calculus and physics. Quantitatively-inclined undergraduates majoring in earth & planetary science, computer science, physics, chemistry, mathematics, statistics, engineering are all encouraged to apply. A minimum GPA of 3.0 is required.

It is aimed at undergraduates who are rising juniors or seniors and is designed to encourage students to attend graduate school in the sciences. Women and underrepresented minorities are strongly encouraged to apply.

For more information email:
berkeleyscienceconnections@berkeley.edu

*This workshop is made possible by a grant from the
National Science Foundation.*