

## **Earth Intern Program for Columbia and Barnard Students**

*Sponsored by the Earth Institute, Lamont-Doherty Earth Observatory, Barnard College and the Department of Earth and Environmental Sciences at Columbia University.*

Program Dates: May 28th-August 4th, 2015

The Earth Intern Program offers the chance to experience scientific research as an undergraduate. **The program is open to all Columbia College, Columbia Engineering, Columbia General Studies, and Barnard students** who have completed their junior or sophomore year in college with majors (or anticipated majors) in earth science, environmental science, sustainable development, chemistry, biology, physics, mathematics, engineering or political science. **Graduating seniors are not eligible.** Minorities and women are encouraged to apply.

Applicants should have an interest in conducting research in the Earth, atmospheric, or ocean sciences. Completion of at least two courses in Earth, atmospheric or ocean sciences is desirable. All students are required to have at least one year of calculus. Students undertaking research in geochemistry and chemical oceanography are required to have at least two semesters of college-level chemistry. Students undertaking research in marine biology are required to have at least two semesters of college-level biology. Students undertaking research in geophysics should have at least three semesters of college-level physics.

**STIPEND:** Students will receive a stipend of \$5000 for this 10-week program.

**HOUSING and TRAVEL BENEFITS:** The student will receive free, air-conditioned housing as one of two students in a double room. Students will also receive free bus transportation between the Columbia campus and Lamont. Students who are traveling to New York for this internship from more than 200 miles away will be reimbursed for a round-trip supersaver fare\*.

The following members of the Earth Institute and the LDEO staff will act as research mentors:

**Joachim Goes and Helga do Rosario Gomes.** Expertise: **Biological Oceanography, Marine Biology.** Research Project: What controls the phytoplankton-rich fronts of the US continental shelf?

**Andrew Juhl.** Expertise: **Biological Oceanography, Marine Biology.** Research Project: How does crude oil affect the growth of marine planktonic algae?

**Won-Young Kim.** Expertise: **Regional Seismology, Earthquake Source Mechanisms, Earthquake Monitoring.** Current Research: Where is the Lithosphere – Asthenosphere boundary underneath Eastern North America?

**Brian Mailloux and Tyler Ellis.** Expertise: **Environmental Microbiology, Environmental Science.** Research Project: Are Groundwater Arsenic Concentrations Changing over time in Bangladesh?

**Frank Nitsche.** Expertise: **Marine Geology and Geophysics, Estuaries, Seafloor Mapping, Sediment Dynamics.** Current Research: Can Hudson River marshes adjust to sea-level rise?

**Cheryl Palm, Stephen Wood, Mark Musumba, Kyle DeRosa.** Expertise: **Agricultural Sustainability.** Research Project: Can smallholder farmers in Africa meet nutritional needs on the land available to them?

**Dorothy Peteet and Jonathan Nichols.** Expertise: **Paleoclimate, Paleovegetation.** Current

Research: What vegetational /climatic shifts are recorded by macrofossil/carbon/leaf wax analysis of a peat core from Nantucket, Massachusetts?

**Pratigya Polissar and Sam Phelps.** Expertise: **Paleoclimate, Organic and Inorganic Geochemistry.** Research Project: Has atmospheric CO<sub>2</sub> decreased over the last 12 million years?

**Beizhan Yan.** Expertise: **Environmental Geochemistry.** Current Research: What is the Environmental Impact of Hydraulic Fracturing in Pennsylvania?

APPLICATION DEADLINE: Application must be **received** by **March 15, 2015.**

**To apply, fill out the on line application form at this location:**

<http://webapp.ldeo.columbia.edu/interns>

The online application form will ask for a statement of interest (including a short discussion of the qualities of a good scientist), a resume and two letters of recommendation from your professors. No more than two letters are required or wanted. These letters are part of the on-line application form and do not need to be sent by regular mail. In addition, send by regular mail (NOT email):

Official college transcript(s);

Columbia and Barnard students who also want their application considered for the Lamont Summer intern program sponsored by NSF Ocean Sciences should select 3 research projects each for both programs on the online application form. It is **not** necessary to send separate applications and transcripts when applying to both programs.

For more information about the program, look at this link:

<http://www.ldeo.columbia.edu/education/programs/summer-internship/intern-program-faqs>

**Send transcripts to: Dr. Dallas Abbott, Columbia Earth Intern Program, Lamont-Doherty Earth Observatory, Palisades, New York 10964, email: [dallashabbott@gmail.com](mailto:dallashabbott@gmail.com)**

Decisions for all but the waiting list will be made on or before April 15, 2015. Every year the research projects and advisors change. Please look for the yearly posting of new projects on the first of February.

\* \$500 cap on travel reimbursement.