

Earth Intern Program for Columbia, Barnard and SUSTech 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 3rd, 2019**

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, as well as SUSTech undergraduate students fully supported by their university** 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:

Róisín Commene, Arlene Fiore and Pierre Gentine. Expertise: **Atmospheric Chemistry and Composition, Terrestrial Ecology, Micrometeorology.** Research Project: How Much Pollution Do Forests Remove From the Atmosphere?

Stephen Cox and Sidney Hemming. Expertise: **Geology, Geochronology, Isotope Geochemistry.** Research Project: East Antarctic Glacial Landscape Evolution (EAGLE): What Can Thermochronology Tell Us About Connections Between Ice Sheets and Tectonics?

Arlene Fiore. Expertise: **Atmospheric Chemistry, Air Pollution, Climate.** Research Project: How Does Drought Affect U.S. Air Pollution?

Joachim Goes, Beizhan Yan and Kali McKee. Expertise: **Microplastics, Marine Food Web, Human Health, Pollutants.** Research Project: What is the Role of Microplastics in the Aquatic Environment and Their Impact on Marine Organisms?

Spencer Jones and Ryan Abernathy. Expertise: **Ocean and Climate Modeling.** Research Project: What Controls the Ocean Heat Transport?

Brian Mailloux. Expertise: **Groundwater Microbiology.** Research Project: Why is the Organic Carbon so Young in Pleistocene Wells in Bangladesh?

Susanne Straub. Expertise: **Igneous Geochemistry, Solid Earth.** Research Project: What are the Crystallization Temperatures of Early Arc Magmas?

Martin Stute. Expertise: **Hydrology, Tracer Applications, Environmental Education.**

Research Project: How Well Can Environmental Tracers Track Groundwater Contamination from Hydrofracking and Carbon Sequestration?

APPLICATION DEADLINE: Application form must be submitted by **February 19th, 2019**.

There is an online application form. It is posted at: <http://webapp.ldeo.columbia.edu/interns>

The online application form asks for the following files:

-Resume with description of computer skills (if any).

-A statement of interest. This statement can include a description of a particular research project that the student wishes to undertake or it can be a more general statement of the three research projects that interest the student most. We recognize that students with no prior research experience may have difficulty formulating a research project and we will not penalize students who do not submit a detailed project description. The goal of our program is to teach students about the research process and we encourage students with no prior research experience to apply. The student should also include a statement of the characteristics of a good scientist and the availability of undergraduate research opportunities at their home institution.

-Two letters of recommendation from your professors. Additional letters are not required or desired.

-Scanned transcript(s). Transcripts need not be official but must be legible and in English.

If transcripts are not available in time to append to the online application form, send scanned transcript(s) by email to:

**Dr. Dallas Abbott
Summer Internship Program
Lamont-Doherty Earth Observatory
Palisades, New York 10964
Email: dallashabbott@gmail.com**

Columbia, Barnard and SUSTech students who also want their application considered for the research projects in the Lamont Summer intern program sponsored by NSF and IODP-USSP 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>

Decisions for all but the waiting list will be made on or before March 15th, 2019. Every year the research projects and advisors change. Please look for the yearly posting of new projects in mid-January. * \$550 cap on travel reimbursement.