

## **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: June 3rd-August 5th, 2021**

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 collegewith 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 preferred to have at least one year of calculus (high school or college) and/or good grades in college level mathematics. 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 \$6000 for this 10-week program.

**HOUSING and TRAVEL BENEFITS:** The student will receive free housing in a single room. Students will also receive free bus transportation between housing at Dominican College 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:

**Allie Balter-Kennedy, Joerg Schaefer.** Expertise: **Glacier and Ice Sheet Change, Paleoclimate, Glacial Geomorphology, Cosmogenic Nuclides.** Research Project: How Fast Did the Juneau Icefield Retreat at the End of the Last Ice Age?

**Suzana Camargo, Chia-Ying Lee, Dan Westervelt, Arlene Fiore.** Expertise: **Climate, Hurricanes, Extreme Events, High-Impact Phenomena, Pollution, Atmospheric Chemistry.** Research Project: What Is the Role of Aerosols in Modulating Atlantic Hurricane Activity?

**Craig Connolly, Benjamin Bostick.** Expertise: **Biogeochemistry, Hydrology, Marine Science, Limnology, Geospatial Analysis, Remote-sensing, Sediment Redox Cycling, Mineralogy, Spectroscopy.** Research Project: What Are the Drivers of Arsenic Contamination and Heterogeneity in Groundwater in Southeast Asia and the USA?

**Dorothy Peteet.** Expertise: **Paleoecology, Paleoclimate.** Research Project: What Do the Macrofossils of Maplecrest Bog, Catskills, Tell Us About the Paleoenvironment of the Region?

**Martin Stute, William Smethie.** Expertise: **Hydrology, Oceanography, Environmental Tracers, Mass Spectrometry, Gas Chromatography.** Research Project: What Can We Learn From Dissolved Gases About Changes in Ocean Circulation and Biogeochemistry?

**Mingfang Ting, Radley Horton.** Expertise: **Climate Change and Climate Impacts.** Research Project: How Does Increasing Extreme Heat Impact the Health of Agricultural Workers?

**Dan Westervelt.** Expertise: **Atmospheric Chemistry, Climate Change.** Research Project: Can Low Cost Sensors Help Close the Air Pollution Data Gap in Sub-Saharan Africa?

**Qiang Yang, Steve Chillrud.** Expertise: **Air Quality, Data Analysis.** Research Project: How Different Are the Fine Particulates in the Air Between NYC and Surrounding Suburban Areas?

APPLICATION DEADLINE: Application form must be submitted by **February 18th, 2021.**

**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.

-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](mailto:dallashabbott@gmail.com)**

Columbia and Barnard 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 April 1st, 2021. 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.