

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 31st-August 2nd, 2023

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 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. Students who choose to live at home will have \$1000 added to their stipend.

HOUSING and TRAVEL BENEFITS: The student will receive free housing in a college dorm room. Students will also receive free bus transportation between the college 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:

Logan Brenner. Expertise: **Paleoclimate, Paleoceanography.** Research Project: Can We Measure the Geochemistry of Barnacles in the Hudson River to Learn About the Environment?

Mona Hemmati, Adam Sobel. Expertise: **Earth Science, Civil Engineering, Atmospheric Science, Environmental Science, and Sustainable Development.** Research Project: How Does Climate Change Affect Tropical Cyclone Impacts on Small Islands?

Jerry McManus. Expertise: **Paleoclimate, Paleoceanography, Geochemistry, Sedimentology, Micropaleontology.** Research Project: What Are the Recent Changes in the East and West Basin of the Deep Atlantic Ocean?

Frank Nitsche, Tim Kenna. Expertise: **Marine Geophysics, Coastal Studies, Sediment Dynamics, Seafloor Mapping, GIS, Geochemistry, Sediment and Water Analysis.** Research Project: What Are the Differences in Sediment Grain Size and Contaminant Distribution in Long Island Sound?

Martin Stute. Expertise: **Environmental Science, Hydrology, Tracers, Greenhouse Gases.** Research Project: What Are the Sources of Greenhouse Gas Emissions Related to Solid Waste Management?

Ajit Subramaniam. Expertise: **Biological Oceanography, Phytoplankton Community Structure, Remote Sensing.** Research Project: What Controls the Phytoplankton Community and Productivity in the Tropical Atlantic Ocean?

Maria Tzortziou. Expertise: **Coastal/Marine Hazards, Coastal Resilience, Aquatic Biogeochemistry and Ecology, Climate Science, Human-Ecosystem Interactions.** Research Project: How Is the Long Island Sound Estuary Responding to Climate Change?

Gisela Winckler. Expertise: **Paleoceanography, Geochemistry, Sediments.** Research Project: Did the Westerlies Move and Strengthen Over the Last Glacial Cycle?

APPLICATION DEADLINE: Application form must be submitted by **February 22nd, 2023.**

There is an online application form. It is posted at:

<https://webapp.ldeo.columbia.edu:8443/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 you have more than one undergraduate transcript, combine them into a single document for upload.

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 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 to both programs.

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

<https://lamont.columbia.edu/education-outreach/student-summer-opportunities-intern-programs>

Decisions for all but the waiting list will be made on or before April 1st, 2023. Every year the research projects and advisors change. Please look for the yearly posting of new projects in mid-January. * \$700 cap on travel reimbursement.