

**Opportunity Title:** Soil, Foodstuffs, and Biota Monitoring Internship

**Opportunity Reference Code:** DOE-MSIPP-20-3-LANL

**Organization** U.S. Department of Energy (DOE)

**Reference Code** DOE-MSIPP-20-3-LANL

**How to Apply** A complete application must include the following to be considered:

- Completion of all required fields in the application and successful application submission
- Undergraduate or graduate transcripts as appropriate
- Two recommendations

If you have questions, send an email to us at [MSIPPinternships@ornl.gov](mailto:MSIPPinternships@ornl.gov). Please include the reference code for this opportunity in your email.

For Technical information, contact Cassandra Casperson at [Casperson@lanl.gov](mailto:Casperson@lanl.gov).

**Application Deadline** 1/31/2020 11:59:00 PM Eastern Time Zone

**Description** The Minority Serving Institutions Partnership Program (MSIPP) Internships is a new program to promote the education and development of the next generation workforce in critical science, engineering, technology, and math (STEM) related disciplines that complement current and future missions of DOE national laboratories. The MSIPP Internship program is designed to provide an enhanced training environment for next generation scientists and engineers by exposing them to research challenges unique to our industry.

MSIPP Interns will be given the opportunity to complete Summer Internships aligned with ongoing U.S. Department of Energy Office of Environmental Management (DOE-EM) research under the direction of a host national laboratory. The internship will be performed at the host national laboratory, utilizing their facilities and equipment under the guidance of a research staff member.

Minority Serving Institutions are institutions of higher education enrolling populations with significant percentages of undergraduate minority students.

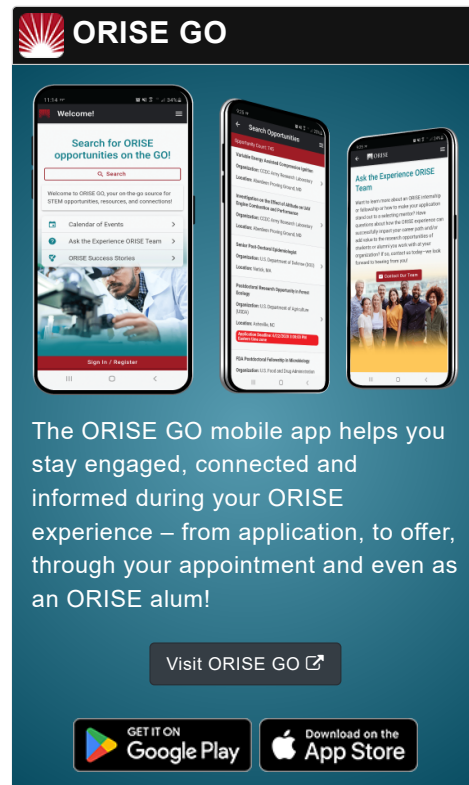
For more information about The Minority Serving Institutions Partnership Program (MSIPP) Internships, please visit [here](https://orise.ornl.gov/msipp/).

To see all MSIPP position postings visit: <https://orise.ornl.gov/msipp/>

#### **Project Description:**

**Date of Appointment: May 26-July 31, 2020**

As part of a team of biologists, you will spend your summer in

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the outdoors learning a variety of field methodologies and collecting numerous environmental samples such as soil, vegetation, small mammals, fish, and more. When not in the outdoors sampling, you will be in the office learning about ecotoxicology and environmental monitoring. The goals of the Soil, Foodstuffs, and Biota program are to determine whether Laboratory operations are affecting chemical concentrations in several types of environmental media and to assess environmental health by evaluating several ecological parameters as mandated by DOE orders. To accomplish these goals, samples are collected from on-site at the Laboratory, from perimeter locations, and from regional background locations and are analyzed for radionuclides, metals, and organic chemicals; results from these locations are then compared. Specifically, on a triennial basis we collect 1) soil, small mammals, and native vegetation from on and offsite locations; 2) crops and other foodstuffs such as milk and eggs; and 3) aquatic ecosystem parameters including benthic macroinvertebrates, fish, and sediment from upstream and downstream locations of the Laboratory. The program also routinely collects road kill samples as they become available.

What you will do:

- Collect, process, and submit environmental monitoring samples of soil, foodstuffs, and biota samples within and around the Laboratory for the analyses of radionuclides, metals, and/or organic chemicals. Sample types include soil, vegetation, small mammals, fish, garden produce, wild edible foods, milk, honey, and road killed animals such as deer, elk, black bear, mountain lion, coyote, gray fox etc.
- Collect benthic macroinvertebrates for taxonomic identification to be used in assessments. Research and learn about radionuclides, metals, PCBs, and PFAS chemicals in the context of ecotoxicology and environmental monitoring.
- Maintain sampling equipment, containers, records, logbooks, storage facilities, and other laboratory and field equipment.
- Participate in maintaining and updating environmental sampling and survey databases, and assist with managing records.

**Salary:** Selected candidate will be compensated by either a stipend or salary, and may include one round trip domestic travel to and from the host laboratory. Stipends and salaries will be commensurate with cost of living at the location of the host laboratory. Housing information will be provided to interns prior to arrival at the host laboratory, and will vary from lab to lab.

**Qualifications** Desired Knowledge, Skills, Work Experience, and Education It is desirable for the candidate to have:

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- Be an undergraduate student pursuing biology, ecology, natural resources management, environmental science, or closely related field.
- Have the ability to complete a scientific literature review on subject of study.
- Have ability to follow all laboratory safety rules and procedures.

*It is desirable for the candidate to have:*

- Self-initiating, communicative work style with very strong interpersonal and collaborative-work capabilities. The ability to collect and organize data from multiple projects concurrently and perform data quality assurance.
- Ability to identify small mammals, fish, and game animals in the field and/or willingness to develop or improve identification skills.
- Willingness to participate in other field tasks that are being undertaken by the group as needed.

**Eligibility  
Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing a Bachelor's Degree.
- **Overall GPA:** 3.00
- **Discipline(s):**
  - **Environmental and Marine Sciences** (4 👁)
  - **Life Health and Medical Sciences** (6 👁)
  - **Mathematics and Statistics** (1 👁)

**Affirmation**

I certify that I am at least 18 years of age, a US citizen, and currently enrolled as a student in a degree seeking undergraduate or graduate program in a STEM field at an accredited Minority Serving Institution (MSI). Click [here](#) to verify that you are enrolled at a current MSI.