

Opportunity Title: Environmental Microbiologist

Opportunity Reference Code: EPA-NSSC-0007-26-2-9-24

Organization U.S. Environmental Protection Agency (EPA)

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How to Apply Click [HERE](#) to Apply

Description The EPA National Student Services Contract has an immediate opening for a full-time Environmental Microbiologist position with the Office of Research and Development at the EPA facility in Research Triangle Park, NC.

The Office of Research and Development at the EPA supports high-quality research to improve the scientific basis for decisions on national environmental issues and help EPA achieve its environmental goals. Research is conducted in a broad range of environmental areas by scientists in EPA laboratories and at universities across the country.

What the EPA project is about

Within ORD, the Center for Environmental Measurement & Modeling (CEMM) conducts research to advance EPA's ability to measure and model contaminants in the environment, including research to provide fundamental methods and models needed to implement environmental statutes. The methods and models developed by CEMM are typically applied at the airshed, watershed and ecosystem level. Within CEMM, the Watershed and Ecosystem Characterization Division (WECD) conducts research to advance EPA's ability to characterize the presence, transport, transformation, sources, and impacts of contaminants in watersheds and ecological systems.


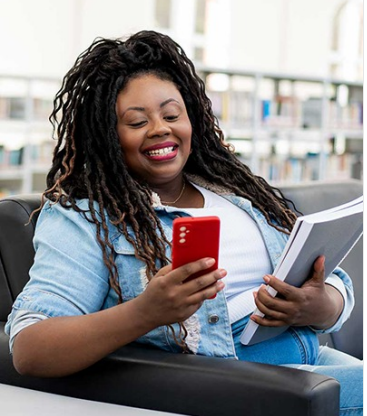
What experience and skills will you gain

As a team member, the work to be performed under this statement of work provides improved understanding of processes that determine microbial fate and transport from terrestrial environments into freshwater and coastal aquatic environments. Results from studies conducted under this task will be used in conjunction with other related biological studies to help evaluate the transport of DNA genetic markers of fecal indicators and pathogens from point and nonpoint sources including both urban and agricultural, to determine bacterial exposure to humans in aquatic environments.

How you will apply your skills

You will assist with studies to determine microbial fate and transport from terrestrial environments into freshwater and marine coastal environments. Specific duties include:

- Processing environmental samples for fecal bacterial counts and isolation of environmental microbial DNA from a variety of aquatic resources including streams, lakes and coastal environments.
- DNA extraction will be conducted from a variety of matrices including, but not limited to water, sediments, and enrichment cultures; testing environmental samples with DNA-based markers for fecal indicator bacteria and fecal pathogens; perform PCR and qPCR for identification

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and quantification of microbial indicators; assist with DNA cloning, sequencing and fragment analysis, provide support for metagenomic and bioinformatics analysis; and for conducting standard water quality analyses for water samples and sediment suspensions investigated in the laboratory and field studies (including pH, DO, dissolved and suspended solids, COD, BOD, and TOC).

- Responsible for conducting laboratory and field monitoring experiments to assess the effect of environmental parameters on the fate and transport of microbial contaminants in aquatic ecosystems.
- Data collection, analysis, and report preparation.

All necessary instructions and training will be provided by EPA staff.

Required Knowledge, Skills, Work Experience, and Education

- Demonstrated education and/or experience in microbiology and/or molecular biology;
- A working knowledge of DNA extraction and clean-up, performing qPCR assays (including preparation of standard curves, testing of primer/probe sets and standardization of assays);
- A working knowledge of cloning and preparation of libraries for metagenomic analysis;
- Excellent oral, written, and electronic communication skills; and
- Experience with common computer operation and software usage (e.g., Microsoft Office Professional Suite, including Excel, Word and PowerPoint.).

Desired Knowledge, Skills, Work Experience, and Education

- Knowledge on the use of field multiprobe meters, automatic samplers, and measurements of water chemistry parameters.

Location: This job will be located EPA's facility in Research Triangle Park, NC.

Salary: Selected applicant will become a temporary employee of ORAU and will receive an hourly wage of \$31.38 for hours worked.

Hours: Full-time.

Travel: Occasional overnight travel may be required.

Expected start date: The position is full time and expected to begin March 2024. The selected applicant will become a temporary employee of ORAU working as a contractor to EPA. The contract renews each May through 2025.

For more information, contact EPANSSC@orau.org. Do not contact EPA directly.

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- Qualifications**
- Be at least 18 years of age and
 - Have earned at least a Master's degree in Microbiology, Ecology, Environmental Health Science, Toxicology, Biological Science, Biochemistry, or related field of study from an accredited university or college within the last 24 months and
 - Be a citizen of the United States of America or a Legal Permanent Resident

EPA ORD employees, their spouses, and children are not eligible to participate in this program.

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
 - **Degree:** Master's Degree received within the last 24 month(s).
 - **Overall GPA:** 2.00
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#))
 - **Earth and Geosciences** ([1](#))
 - **Environmental and Marine Sciences** ([14](#))
 - **Life Health and Medical Sciences** ([46](#))

Affirmation I certify that I am at least 18 years of age; a recent graduate with at least a Master's degree in Microbiology, Ecology, Environmental Health Science, Toxicology, Biological Science, Biochemistry, or related field of study from an accredited university or college within the last 24 months; a citizen or a Legal Permanent Resident of the United States of America; and not a current employee of EPA ORD or the spouse or child of an EPA ORD employee.

ORAU is an Equal Opportunity Employer (**EOE AA M/F/Vet/Disability**); visit the [ORAU website](#) for required employment notices.