

Opportunity Title: EPA Water Quality of Drinking Water Systems Internship

Opportunity Reference Code: EPA-ORD-CESER-WID-2021-03

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-ORD-CESER-WID-2021-03

How to Apply *Connect with ORISE...on the GO!* Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. Click [here](#) for detailed information about recommendations.

All documents must be in English or include an official English translation.

Application Deadline 7/7/2021 3:00:00 PM Eastern Time Zone

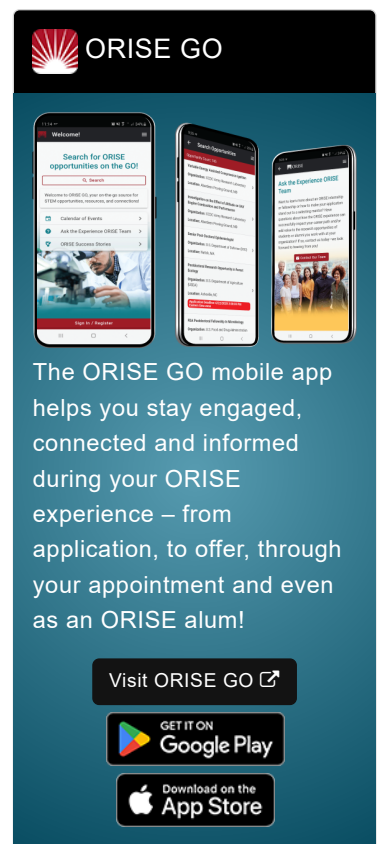
Description *Applications may be reviewed on a rolling-basis and this posting could close before the deadline. Click [here](#) for information about the selection process.

EPA Office/Lab and Location: A research opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Environmental Solutions and Emergency Response (CESER), Water Infrastructure Division (WID) located in Cincinnati, Ohio.

Research Project: This research project will investigate and study biological and chemical treatment of drinking water and the integrity and the water quality of drinking water distribution systems. Ongoing drinking water distribution studies on the following research topics are of critical importance to the Division: Drinking water biofilms (Legionella is commonly found in biofilms), Metal contamination, such as lead or copper, which is associated with premise plumbing in buildings and homes, Biological treatment of water systems, Harmful algal bloom and cyanobacteria research. These projects will also include research on how to effectively remove certain contaminants, such as ammonia, nitrate, nitrite, metals and legionella, from drinking water. Bench and pilot-scale approaches such as the home plumbing system and dual column pilot will be utilized for these research studies. Pilot filtration studies will be performed to evaluate the effect of parameter changes in some of these contaminants.


Learning Objectives:


- Learning how premise plumbing systems can contribute to the risks associated with exposure to lead and microbial contaminants in drinking water.




ORISE GO

The ORISE GO mobile app helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!

Visit ORISE GO 

GET IT ON
 Google Play

Download on the
 App Store

Opportunity Title: EPA Water Quality of Drinking Water Systems Internship

Opportunity Reference Code: EPA-ORD-CESER-WID-2021-03

- Learning the conditions that both promote and mitigate metal corrosion in drinking water systems.
- Learning the conditions that both promote and mitigate the occurrence of Legionella bacteria and other indigenous human pathogens in drinking water systems
- Learning how pilot plants can provide guidance to water utilities personnel through hands on training
- Understanding the conditions that promote biological treatment and negate distribution nitrification
- Learning different plumbing materials and associated fittings
- Understanding the use of microbiological analysis tools to assess and solve drinking water treatment and distribution issues.
- Understanding the properties and stability of drinking water treatment residuals associated with systems treating waters contaminated with harmful algal blooms.

Mentor(s): The mentor for this opportunity is Daniel Williams (Williams.daniel@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: **Summer 2021.** All start dates are flexible and vary depending on numerous factors. Click [here](#) for detailed information about start dates.

Appointment Length: The appointment will initially be for one year and may be renewed up to three additional years upon EPA recommendation and subject to availability of funding.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. Click [here](#) for detailed information about full-time stipends.

EPA Security Clearance: Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please see the [FAQ section](#) of our website. After reading, if you have additional questions about the application process please email ORISE.EPA.ORD@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a bachelor's degree in one of the relevant fields, or be currently pursuing the degree with completion by the appointment start date. Degree must have

Opportunity Title: EPA Water Quality of Drinking Water Systems Internship






Opportunity Reference Code: EPA-ORD-CESER-WID-2021-03

been received within five years of the appointment start date.

Preferred skills:

- Coursework and lab work related to chemistry, microbiology, molecular biology, genetics and/or civil/environmental/chemical/biological engineering principles or related fields
- Ability to analyze data using Microsoft Excel, SigmaPlot, or other tools
- Experience writing technical documents or journal articles
- Experience preparing and delivering PowerPoint presentations
- Knowledge of common hand tools
- Scientific and technical writing skills, and data visualization and analysis skills

**Eligibility
Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree received within the last 60 months or anticipated to be received by 6/18/2021 11:59:00 PM.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** (3 )
 - **Earth and Geosciences** (1 )
 - **Engineering** (5 )
 - **Environmental and Marine Sciences** (2 )
 - **Life Health and Medical Sciences** (3 )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).