Opportunity Title: Analytical Chemistry Research - Master's or Doctoral Degree
Opportunity Reference Code: ERDC-EL-2021-0014

Organization U.S. Department of Defense (DOD)

Reference Code ERDC-EL-2021-0014

How to Apply Click on *Apply* now to start your application.

Description The US Army Engineer Research & Development Center (ERDC) Environmental Laboratory (EL) provides relevant, value-added technology supporting the environmental mission of the US Army Corps of Engineers, the Army, the Department of Defense (DoD), and the Nation. Headquartered in Vicksburg, Mississippi, the EL's interdisciplinary staff of over 220 engineers, scientists, technicians, and support personnel plans and executes all phases of the technology development process, from basic research to field implementation to commercialization. The EL staff consists of problem solvers who use research, development, experimentation, special studies, and technical support to address the needs of national and international business development partners. Partnering with Federal and State agencies, academia, and the private sector, the EL uses its distinctive technical capabilities to resolve complex, multi-disciplinary environmental sustainability problems.

What will I be doing?

You will gain experience conducting research in a professional laboratory and performing standard and modified analytical methods. This will include, but may not be limited to: preparation of soils and waters for metals/alkaline cations analyses using aqueous extraction and acid digestions; analyzing water samples for inorganic ions, metals, and nutrients; spectroscopic analysis of soils via x-ray fluorescence, FT-IR, and vis-NIR spectroscopy; speciation of metals by redox state including nanoparticle characterization; preparation of soils and waters for a variety of organic compounds; and entry of data into MS Access databases. Your research will include sample analysis, data reduction, and preparation of reports as needed in an environmental analysis lab focused on meeting the needs of soil forensic analysis and contaminant environmental fate research. As this is a mentored experience, you will receive oversight and mentoring from federal research scientists, including instruction in laboratory safety protocols, experimental methods, and data analysis.

Where will I be located? Vicksburg, MS

Why should I apply?

This internship provides the opportunity to independently utilize your skills and engage with experts in innovative ideas to move the proposed research forward. There are multiple opportunities available to engage in your applied research and evaluation interests.

What is the anticipated stat date?

ERDC-EL is ready to make an appointment. Exact start date will be determined at the time of selection and in coordination with the selected candidates.

What are the benefits?

You will receive a stipend to be determined by ERDC-EL. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. Participants are eligible to purchase health insurance through ORISE.
- Relocation Allowance

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- Training and Travel Allowance

This ORISE appointment is a full-time 12 month opportunity. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

Nature of the Appointment

You will not enter into an employee/employer relationship with ORISE, ORAU, DOD, or any other office or agency. Instead, you will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Qualifications

You should possess either a Ph.D or have least four years experience at the Master's level in analytical chemistry.

A complete application consists of:

- Zintellect profile
- Educational and Employment History
- Essay Questions - The application includes questions specific to the opportunity
- Academic Records - For this opportunity, an official transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted.
- Current Resume/CV
- One (1) Recommendation - Applicants are required to provide contact information for at least one recommendation. You are encouraged to request a recommendation from a professional who can speak to your abilities and potential for success as well as your scientific capabilities and personal characteristics. Recommendation requests must be sent through the Zintellect application system. Recommenders will be asked to complete a recommendation in Zintellect. Letters of recommendation submitted via email will not be accepted.

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system. All documents must be in English or include an official English translation. If you have questions, send an email to usace@orise.orau.gov. Please list the reference code of this opportunity ERDC-EL-2021-0014 in the subject line of the email.

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!

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
- **Age:** Must be 18 years of age
- **Veteran Status:** Veterans Preference, degree received within the last

120 month(s).