

**Opportunity Title:** USDA-ARS Soil and Water Chemistry in the Mississippi Delta

**Opportunity Reference Code:** USDA-ARS-SEA-2025-0030

**Organization** U.S. Department of Agriculture (USDA)

**Reference Code** USDA-ARS-SEA-2025-0030

**How to Apply** *To submit your application, scroll to the bottom of this opportunity and click **APPLY**.*

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. 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

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

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**Application Deadline** 4/11/2025 3:00:00 PM Eastern Time Zone

**Description** **\*Applications are reviewed on a rolling-basis.**

**ARS Office/Lab and Location:** A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), located in Oxford, Mississippi

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

The research mission of the USDA-ARS Water Quality and Ecology Research Unit is to study impacts of agricultural practices and conservation measures on water and soil quality, as well as ecosystem services. The research is expected to advance knowledge of water and soil biogeochemistry from samples within the Mississippi Delta. Research will improve knowledge of soil and water nutrients and dissolved gases, including impacts on downstream water bodies.

**Research Project:**



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- The participant will collaborate with USDA-ARS research scientists and support scientists to collect, prepare, and analyze soil and water samples from several field research sites.
- The participant will be trained on analytical techniques and equipment for nutrient extraction from water and soil samples.
- The participant will be trained on membrane inlet mass spectroscopy to determine dissolved gas nutrient concentrations in aquatic systems.

**Learning Objectives:**

- The participant will gain valuable experience collaborating with an interdisciplinary research team addressing the sustainability and environmental aspects of water and soil.
- The participant will develop skills in experimental design, data collection, and data management in chemistry, biogeochemistry, and ecology.

**Mentor(s):** The mentor for this opportunity is Matt Moore ([matt.moore@usda.gov](mailto:matt.moore@usda.gov)). If you have questions about the nature of the research, please contact the mentor(s).

**Anticipated Appointment Start Date:** **March 15, 2025.** Start date is flexible and will depend on a variety of factors.

**Appointment Length:** The appointment will initially be for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

**Level of Participation:** The appointment is full time.

**Participant Stipend:** The participant will receive a monthly stipend commensurate with educational level and experience. **Anticipated monthly stipend will be \$3,040 for 40 hours a week.**

**Citizenship Requirements:** This opportunity is available to U.S. citizens only.

**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 ARS. Participants do not become employees of USDA, ARS, 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 visit our [Program Website](#). After reading, if you have additional questions about the application process, please email [ORISE.ARS.Southeast@orau.org](mailto:ORISE.ARS.Southeast@orau.org) and include the reference code for this opportunity.

**Qualifications** The qualified candidate should have received a bachelor's degree in the

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one of the relevant fields (chemistry or related field).






**Preferred skills:**

- Time management: Candidate must be punctual and able to devote research hours to assigned tasks.
- Dependable: Candidate must be thorough, trustworthy, and provide a high level of attention to detail. Candidate must be able to perform independently.
- Candidate must have basic knowledge of analytical instrumentation and comfortable in a chemical laboratory setting.

**Point of Contact** [Janeen](#)

**Eligibility** • **Citizenship:** U.S. Citizen Only

**Requirements** • **Degree:** Bachelor's Degree received within the last 60 month(s).

- **Discipline(s):**
  - **Chemistry and Materials Sciences** ([3](#) )
  - **Earth and Geosciences** ([1](#) )
  - **Engineering** ([1](#) )
  - **Environmental and Marine Sciences** ([1](#) )
  - **Life Health and Medical Sciences** ([2](#) )