

Junior Specialist

Search Plan & Position Description

POSITION DESCRIPTION

We are seeking a highly motivated and enthusiastic individual to assist in laboratory and field work within the Dahlke Lab (dahlke.ucdavis.edu).

Under the direction and advisement of the Dr. Helen Dahlke (Principal Investigator) and Dr. Coy McNew (member) the candidate will:

1. be responsible for conducting laboratory and fieldwork as part of a research team in a project that is measuring a suite of soil and hydrologic parameters in the fields and assessing field collected samples and data in laboratory analysis.
2. assist in literature reviews, data collection, data analysis, and technical writing, editing and formatting of graphs and tables that summarize data generated in lab analyses and field studies from different sites within California.
3. assist in carrying out experiments designed by the PI,
4. assist in and independently perform soil sample analysis including soil texture, soil pH, EC and soil nitrate and carbon analysis.
5. assist in and independently deploy and maintain soil temperature, EC, redox potential and moisture sensors in the field.
6. contribute to the development of new technology for experimental use in the field and in the laboratory related to soil and hydrologic research, and
7. participate in the development of scientific products for dissemination (e.g., reports and peer-reviewed journal articles).
8. assist towards the development of conceptual or physical models that simulate and help explain observed flow and transport processes in field and laboratory experiments.

Overall, these responsibilities support lab and field experiments associated with the investigation of the feasibility of agricultural groundwater banking for the improved mechanistic understanding of flow and transport processes in agricultural landscapes in California and across the globe.

Specific Responsibilities include:

- A. Maintaining and organizing the laboratory while adhering to laboratory safety standards
- B. Ordering of lab and field supplies
- C. Recruiting, training, and effectively managing laboratory interns, student assistants and graduate students
- D. Reading primary literature
- E. Contributing to grant reporting, including data analysis and writing
- F. Assisting PI, postdocs and graduate in field campaigns (e.g., Tulare, Stanislaus, Fresno, Siskiyou, Modoc Counties) that require travel
- G. Supporting in the development of scientific products for dissemination (e.g., graphs, tables, reports and peer-reviewed journal articles)
- H. Assist with the collection of water samples and soil cores using the Geoprobe push-drill.
- I. Deploying environmental sensor technologies, including deploying:
 - Decagon soil moisture, EC and temperature sensors
 - Campbell Scientific data loggers and redox sensors
 - Irrrometer tensiometers
 - data loggers and database management and maintenance
- J. Train new, incoming staff on laboratory safety standards and prepare laboratory for annual laboratory safety inspection
- K. The Specialist will be expected to co-mentor student assistants, interns and graduate students on laboratory work and lab safety. The Specialist will maintain liaison and respond to needs of project co-principal investigators and stakeholders (e.g. the funding agency and collaborating growers). The funding for this project is provided by the California Almond Board which requires frequent reporting, and collaborative discussions about research needs and preliminary findings.

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Basic qualifications:

- A positive, self-motivated, attitude
- Excellent problem-solving and skills to overcome technical challenges
- Demonstrated experience with technical field methodologies or instruments for data collection
- Experience in soil laboratory analysis (e.g. soil texture, soil biogeochemistry, soil nitrate)
- Experience preparing and organizing supplies for laboratory and field research
- Skills following research sampling protocol to handle and transport samples, and maintain records from sampling events and laboratory analyses
- Bachelor degree in Environmental Science or a related field with a minimum of 1 years' experience in soil science, hydrology, and/or hydrogeology related research

Preferred qualifications:

- Experience deploying, managing, and decommissioning environmental sensors from different manufacturers
- Experience with soil laboratory analysis
- Experience with statistical data analysis tools (e.g. Strater, Grapher, Surfer, GIS)
- Programming in R or Python.

SALARY RANGE: Step I - \$18.26 hourly

POSITION AVAILABLE/CLOSING DATE: For full consideration, apply by September 15, 2017 (subject to change depending on date of approval on Search plan). Applications received after this date will only be considered if the position has not yet been filled.

TERM OF APPOINTMENT: 100% for 6 months (starting latest October 1, 2017) with the potential for extension to 12 months upon satisfactory progress.

TO APPLY: To apply, please go to the following link: <https://recruit.ucdavis.edu/apply>. Applicants should submit **cover letter** indicating how you meet the minimum and desirable qualifications, your most **recent CV** and **contact information for 2-3 recent references**. All letters of recommendation will be treated as confidential per University of California policy and California state law. Documents/materials must be submitted as PDF files.

QUESTIONS: Please direct questions to Anna Lee via email to metroexec@ucdavis.edu

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see:

<http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct>.

Under Federal law, the University of California may employ only individuals who are legally able to work in the United States as established by providing documents as specified in the Immigration Reform and Control Act of 1986. Certain UCSC positions funded by federal contracts or sub-contracts require the selected candidate to pass an E-Verify check. More information is available <http://www.uscis.gov/e-verify>.

UC Davis is a smoke & tobacco-free campus (<http://breathefree.ucdavis.edu/>).

If you need accommodation due to a disability, please contact the recruiting department.