

Assistant Professor of Groundwater Hydrology
Department of Land, Air and Water Resources, University of California, Davis

As part of UC Davis' commitment to hire leading research faculty with an outstanding commitment to teaching, research and service that will promote the success of historically underrepresented and marginalized student communities and address the needs of our increasingly diverse state and student population, the College of Agricultural and Environmental Sciences at the University of California, Davis (UC Davis) announces an Assistant Professor faculty position (9-month) in the Department of Land, Air and Water Resources. Applications are encouraged from candidates with a strong background in any current or emerging area that will fit within our department's disciplinary focus in Hydrology, Soils and Biogeochemistry, and Atmospheric Science.

As one of the country's leading R1 institutions, UC Davis seeks candidates with exceptional [potential for/record of] research, teaching, and inclusive excellence. In addition, the successful candidate will demonstrate an understanding of the barriers preventing full participation of members from historically underrepresented and marginalized student communities in higher education, such as (but not limited to) women, underrepresented minorities, individuals self-identifying as LGBTQIA+, veterans, individuals with disabilities, economically disadvantaged groups, first-generation, undocumented students, or students with any intersections in between. Successful candidates will help advance UC Davis' strategic goal of improving access and building an inclusive community for all marginalized populations. The successful candidate also will have an accomplished track record (calibrated to career stage) of teaching, research, or service activities addressing the needs of underrepresented minorities, and a clearly articulated vision of how their work at UC Davis will continue to contribute to the University's mission of serving the needs of our diverse state and student population. Applicants' track record of engagement and activity related to diversity, equal opportunity, and inclusion as well as their plans for future engagement will be a significant part of the overall evaluation of the candidate's qualifications for a faculty appointment.

This is an academic year (9-month) tenure-track Assistant Professor position with teaching, research, outreach/engagement and service responsibilities and includes the expectation that the appointee will conduct mission-oriented research and outreach/engagement of relevance to the California Agricultural Experiment Station (<https://caes.ucdavis.edu/research/aes>).

Responsibilities:

The Department of Department of Land, Air and Water Resources is seeking applicants that focus on **Groundwater Hydrology** with strong expertise in hydrogeology and in physical groundwater flow and contaminant transport processes, including the ability to use and improve upon numerical methods and data from neighboring disciplines (e.g. geophysics, AI) to cross a wide range of temporal and spatial scales in available data support, process description, focus of inquiry, and integration with other hydrological processes.

The appointee is expected to establish a competitively funded innovative research program to address critical and emerging issues in groundwater science and modeling and to contribute significantly to society's capacity to sustainably manage groundwater resources at the urban, agricultural, and natural landscape interface to improve the sustainability of this resource for future generations. Potential areas of research include the application of interdisciplinary and integrative methods of physical, stochastic, and statistical groundwater analysis including the quantitative assessment and prediction of groundwater supply, storage, and flux, and of the fate and transport of environmental and emerging contaminants. The

appointee is expected to form collaborations with experts in watershed science, agricultural water and irrigation management, and climate change research and/or other fields.

The appointee is expected to develop a teaching and academic mentoring program that educates tomorrow's water professionals and empowers them to address integrated water management and sustainability issues. The appointee will be teaching at least two undergraduate level and one graduate level course covering the fundamentals of groundwater flow and transport, groundwater hydraulics, geology and geochemistry, characterization and modeling of subsurface heterogeneity, and numerical methods of groundwater flow and transport processes (e.g., numerical methods to solve flow and transport processes, inverse modeling, geostatistics, data science, AI) and models of groundwater flow and transport. The appointee's teaching program will support the Hydrology (HYD), Environmental Science & Management (ESM), and Sustainable Agriculture and Food Systems (SAFS) majors, and the Hydrologic Sciences and Soils and Biogeochemistry graduate groups. Graduates from these programs are an important source of new hydrologists and water resources managers. The expectation for the appointee's teaching load is 2.5 courses per year of which one course should be high enrollment (e.g. > 60 students). Potential classes that could be assigned include: HYD 10/SAS 10 Water, Power, Society, HYD 146/GEL 156 Hydrogeology & Contaminant Transport, or HYD 269 Numerical Modeling of Groundwater Systems, or HYD 273 (Introduction to Geostatistics. In addition to teaching and curricular development the appointee is also expected to recruit and mentor students from diverse backgrounds at the undergraduate, graduate and postgraduate level.

For this position, the candidate is expected to serve the land grant mission by developing basic and applied science related to sustainable groundwater management and groundwater quality protection, Californian's constitutional right to safe, affordable, and clean drinking water, and policies for supporting sustainable agriculture and food systems under a changing climate. The appointee is expected to develop outreach programs that may include collaboration with state water agencies (e.g. Department of Water Resources, State Water Resources Control Board, Regional Water Boards), federal water agencies (USGS, EPA, DOE, USDA, USBR, USGS), local groundwater sustainability agencies across the western U.S., environmental justice and community water organizations (e.g., Community Water Center), and flood management districts, among others.

Qualifications:

Ph.D. or equivalent degree in Hydrogeology, Hydrology, geology, civil engineering or closely related field (degree must be awarded by start of position). Post-doctoral experience is preferred. Evidence of research excellence is expected. The candidate should have the ability to develop and instruct undergraduate and graduate courses and the ability to develop and conduct extramurally funded research in groundwater hydrology, hydrogeology, and in the application of interdisciplinary and integrated methods to physical, stochastic, and statistical groundwater analysis, to quantitative assessment and prediction of groundwater supply, storage, flux, and of fate and transport of environmental and emerging contaminants, and to the impact assessment of links between groundwater systems and agricultural water and irrigation management, drinking water supply, and climate change.

Salary:

The salary range for this position is \$[97,500]-\$[120,100]. "Off-scale salaries" and other components of pay, i.e., a salary that is higher than the published system-wide salary at the designated rank and step, are offered when necessary to meet competitive conditions, qualifications, and experience.

Applications:

Application materials must be submitted via the following website: <https://recruit.ucdavis.edu/JPF06206>. The position will remain open until filled. To ensure consideration, applications should be received by **January 31, 2024**.

Initial review of applications will be conducted using anonymized versions of the Statement of Research Accomplishments and Interests and the Statement of Contributions to Diversity, Equity, and Inclusion. Applications demonstrating sufficient potential based on this review will be advanced to full review.

Required application materials include: 1) curriculum vitae including publication list, 2) up to three publications, 3) transcripts if the applicant is within five years of Ph.D. degree, 4) statement of research accomplishments and future research plans relevant to Groundwater Science, groundwater flow and contaminant transport, and application and development of numerical methods to groundwater research, 5) statement of teaching accomplishments and philosophy, and available student evaluation from any previous taught classes 6) Statement of Contributions to Diversity, Equity and Inclusion, 7) the names, addresses, including e-mail, of four professional references and 8) an [Authorization to Release Information form](#). Additional inquiries should be directed to (*provide contact information for Recruitment Advisory Committee chair*).

The University of California is committed to creating and maintaining a community dedicated to the advancement, application, and transmission of knowledge and creative endeavors through academic excellence, where all individuals who participate in University programs and activities can work and learn together in a safe and secure environment, free of violence, harassment, discrimination, exploitation, or intimidation. With this commitment, UC Davis conducts a reference check on all first-choice candidates for Academic Senate Assistant Professor or Lecturer with Potential for Security of Employment, Steps 4, 5, or 6, or Acting Professor of Law positions. The reference check involves contacting the administration of the applicant's previous institution(s) to ask whether there have been substantiated findings of misconduct that would violate the University's Faculty Code of Conduct. To implement this process, UC Davis requires all applicants for any open search for assistant professor to complete, sign, and upload the form entitled "Authorization to Release Information" into RECRUIT as part of their application. If an applicant does not include the signed authorization with the application materials, the application will be considered incomplete, and as with any incomplete application, will not receive further consideration. Although all applicants for faculty recruitments must complete the entire application, only finalists considered for Academic Senate Assistant Professor or Lecturer with Potential for Security of Employment, Steps 4, 5, or 6, or Acting Professor of Law positions will be subject to reference checks.

UC Davis is an affirmative action/equal employment opportunity employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, veterans, and individuals with disabilities.