

Kansas Geological Survey (KGS)
University of Kansas
Lawrence, Kansas

POSITION ANNOUNCEMENT

POSITION TITLE: KGS Geohydrology Summer Internship

KU TITLE: Temporary Worker-UPS

APPLICATION DEADLINE: Review begins February 14, 2022, and will continue until a qualified pool of candidates is received.

TENTATIVE START DATE: May 31, 2022, exact start date is negotiable.

SALARY, EMPLOYMENT STATUS, AND FRINGE BENEFITS: Interns will be paid \$15/hour with an anticipated 12-week, full-time work schedule. Expenses of travel to and from Lawrence are not provided. All work-related travel expenses will be provided by the Kansas Geological Survey.

POSITION OVERVIEW:

The Geohydrology Section of the Kansas Geological Survey (KGS) at the University of Kansas (KU) invites applications for multiple KGS Geohydrology Summer Research Assistantship positions for the summer of 2022. The positions are available for upper-level undergraduates, recent graduates, or graduate students with an interest in interdisciplinary water science, including biogeochemistry, ecohydrology, and hydrogeology. Established in 1997, positions in the KGS summer internship program have been held by students from diverse institutions across the US and abroad. Many past participants have co-authored articles or conference presentations based on the summer work, and students would be encouraged to continue work on projects as part of an undergraduate or graduate thesis following the conclusion of the internship if interested. More information on the internship program is available here:

<https://www.kgs.ku.edu/Hydro/gipIndex.html>.

RESTRICTIONS: Only candidates with the appropriate U.S. work authorization will be considered.

Start Date: Start the week of May 31, 2022 (flexible based on student schedule)

RESPONSIBILITIES:

This assistantship is a 12-week summer position during which interns will work with KGS, KU, and collaborators at other institutions by contributing to externally-funded research projects. Projects that may support interns in 2022 include: investigating water quantity and quality in intermittent streams; evaluating irrigation management strategies to promote groundwater sustainability; and characterizing the drivers of water availability and water quality in the Kansas River corridor.

In 2022, we anticipate hiring between 3-5 interns depending on funding. Interns can apply for one of two tracks:

- Biogeochemistry Track (supervised by [Erin Seybold](#)): These interns will conduct research focused on understanding the drivers of groundwater and surface water quality in undisturbed and anthropogenic landscapes. This may include collecting and analyzing water quality samples, working with high-frequency water quality sensor networks, and synthesizing and analyzing long-term water quality data. Projects on this track may include both field work and data science approaches.
- Ecohydrology Track (supervised by [Sam Zipper](#)): These interns will conduct research on the characterization and analysis of groundwater and surface water resources, and interactions between water resources, society, and ecosystems. Projects on this track typically include a substantial data science and modeling component as well as field research.

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Interns will work closely with their supervisors to design suitable summer research projects that meet project needs and align with intern career goals. While the interns will specialize in one of these two tracks, they will have many opportunities to work together and with other students to gain interdisciplinary experience.

20% - Collecting field measurements of hydrogeological and biogeochemical properties (infiltration capacity, soil cores, stream stage, water quality constituents, etc.).

20% - Synthesis and analysis of hydrological, meteorological, geophysical, and/or biogeochemical data.

20% - Developing and/or using hydrological, agronomic, and biogeochemical models.

20% - Laboratory analysis of water and sediment samples.

20% - Preparing results for publication or presentation.

Percentages for each duty will vary depending on the specific project the intern works on.

REQUIRED QUALIFICATIONS:

1. Relevant coursework in hydrogeology, hydrology, and/or biogeochemistry.
2. Interest in water science as evidenced by coursework and application materials.
3. Clear communication skills as evidenced by application materials.

PREFERRED QUALIFICATIONS:

1. Experience with any of the duties described above.
2. Coding and data analysis using programmatic approaches (R, Python, MATLAB, etc.).
3. Experience with GIS and/or remote sensing analysis.
4. Ability and willingness to participate in outdoor physical activity in mid-summer temperatures in Kansas.

APPLICATION PROCEDURE:

Apply online at <https://employment.ku.edu/staff/21068BR>.

Upload the following information:

- Cover letter (max 2 pages) indicating which track you are interested in, how you meet the required and preferred qualifications, and how the internship will help you reach your career goals.
- Full CV.
- Contact information for 3 references (email address, phone number, and relation to reference).
- Academic transcripts (unofficial copies acceptable).

First consideration given to applicants whose material is received by February 13, 2022.

Review begins February 14, 2022, and will continue until a qualified pool of applicants is received. For best consideration apply by the review date above.

CONTACT INFORMATION:

For further technical information contact Erin Seybold at erinseybold@ku.edu and Sam Zipper at samzipper@ku.edu. For other HR information, contact Annette Delaney at adelaney@ku.edu.

KANSAS GEOLOGICAL SURVEY: The Kansas Geological Survey (KGS) is a research and service division of the University of Kansas that investigates and provides information about the state's geologic and groundwater resources. The KGS has no regulatory authority and does not take positions on natural resource issues.

KGS scientists pursue research related to surface and subsurface geology, energy resources, groundwater, and environmental hazards. They develop innovative tools and techniques, monitor earthquakes and groundwater levels, investigate water-quality concerns, and map the state's surface geology. Their analyses, findings, and data are shared with the scientific community and general public through publications, online resources, and presentations. The KGS also houses thousands of oil and gas and water well records filed with the state over several decades as well as thousands of rock cores and cuttings brought to Earth's surface during oil and gas drilling.

The main headquarters of the KGS is in Lawrence on the west campus of the [University of Kansas](#), and the [KGS Well Sample Library](#) is in Wichita. Between the two locations, the KGS has a staff of approximately 115 employees, including 35 student employees. The KGS reports to the [Vice Chancellor for Research](#) at the University of Kansas and has a 12-member [advisory council](#) to provide review and guidance.

[More...](#)

LAWRENCE: A city of approximately 95,000, Lawrence is located on a rolling landscape 35 miles west of the major metropolitan area of Kansas City and 20 miles east of Topeka, the state capital. Home to [Haskell Indian Nations University](#) (<http://www.haskell.edu>) as well as KU, Lawrence offers the cultural and athletic events of a university setting. For more information on Lawrence, please visit the [Lawrence Convention and Visitors Bureau](#) (<http://www.visitlawrence.com>), the [Lawrence CyberVillage](#) (<http://www.ci.lawrence.ks.us>), or the [City of Lawrence](#) (<http://www.lawrenceks.org>) web pages.

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