



University of Wisconsin-Milwaukee
School of Freshwater Sciences

Vacancy Announcement

Assistant Professor, Climate and Watershed Science

The University of Wisconsin-Milwaukee (UWM) is seeking an Assistant Professor, tenure track, nine-month (academic year) appointment, with expertise in climate and watershed sciences in the School of Freshwater Sciences (SFS).

Who We Are:

The University of Wisconsin-Milwaukee (UWM) is a major urban university, committed to academic excellence, located in the commercial and industrial hub of Wisconsin. The campus is in a pleasant residential neighborhood on Milwaukee's northeast side, only a few blocks from Lake Michigan. UW-Milwaukee is one of the two "doctoral cluster" campuses in the 13-campus University of Wisconsin System, with a student enrollment of approximately 25,000. The School of Freshwater Sciences (SFS) at UWM is the only graduate school in the nation dedicated to the study of freshwater issues. Its interdisciplinary research and education programs link science with action and are integrated across five major areas: atmospheric sciences, freshwater system dynamics; human and ecosystem health; freshwater technology; and freshwater economics, policy, and management. It is the school's goal to be recognized world-wide as the source of expert knowledge on water issues and a catalyst for great ideas that change how people think about and manage water resources. The School of Freshwater Sciences is based in the heart of Milwaukee's Latinx community in the Harbor District. Our school facilities, including research vessels and laboratories, have direct access to the confluence of the Milwaukee, Menominee and Kinnickinnic Rivers and Lake Michigan.

The campus and greater Milwaukee communities offer strong opportunities for research collaboration and professional development.

For information on Milwaukee please visit, <https://uwm.edu/about-milwaukee/>

Position Description:

SFS seeks a scientist who will join a highly interdisciplinary program at the School of Freshwater Sciences and combine the strengths of freshwater sciences and atmospheric sciences at UWM to address the challenges of integrating climate and watershed science at scales relevant to local landscapes (urban and rural), regional hydrology (Great Lakes), and ecosystem services.

The successful candidate will be prepared to:

1. Develop a high-quality **Research** portfolio employing modeling, environmental observations, and data synthesis techniques in climate and water science that involves independent and collaborative sponsored research, and obtain extramural funding for such programs from federal, state, and private sources;
2. Develop and **Teach** climate and water science courses. Options for teaching include undergraduate courses contributing to a new major in Freshwater Sciences and an existing major in Atmospheric Science, as well as graduate level courses supporting PhD, Master of Science, and Professional Science Masters degrees. The candidate will also be prepared to mentor students, including those from underrepresented backgrounds; and
3. Work with community partners (government, sewerage districts, not-for-profits, community

groups, educational groups, etc.) interested in mitigating and adapting to climate change on local and regional watershed scale environments, as well as perform administrative duties, as part of **Service** duties commensurate with a tenure-track appointment in the School.

Performance of Duties:

Research (Expectation of 50% of Time)

UWM seeks a scientist who integrates climate and watershed science. Within the School of Freshwater Sciences are numerous opportunities for collaboration; most relevant for this position may be the Center for Water Policy.

To this end, the appointed candidate is expected to:

- Submit for and obtain extramural grant funding for a vigorous research program;
- Engage in sponsored research with local and regional partners that helps them to achieve their goals;
- Communicate and disseminate research findings through peer-reviewed publications, posters, and oral presentations at scientific/professional meetings;
- Train future scientists at the undergraduate, master's and doctoral levels.
- Represent the School of Freshwater Sciences in this area of expertise within the local, regional and national communities, including government, NGOs, university and professional meetings.

Teaching (Expectation of 40% of Time)

The School of Freshwater Sciences is offering a new undergraduate major and minor in freshwater sciences, beginning in fall 2021. UWM currently offers an undergraduate major in atmospheric sciences, which will begin to be administered by the School of Freshwater Sciences in fall 2021. In addition, both areas offer established masters and PhD programs. The university intends to grow enrollment in all areas, and especially at the undergraduate level.

As the expertise of the climate and water scientist position will sit at the intersection of both fields, and student engagement is a key goal of UWM, the successful candidate has the opportunity to teach courses supporting both areas as well as aid in the development of unique learning opportunities that enhance STEM education and outreach.

Additionally, UWM is partnering with 12 other universities in the University of Wisconsin System to launch the Freshwater Collaborative of Wisconsin (<https://freshwater.wisconsin.edu>), and all faculty at the School of Freshwater Sciences can play a role in its future development.

To this end, the successful candidate is expected to:

- Provide undergraduate and/or graduate-level instruction supporting the Freshwater Sciences and Atmospheric Sciences disciplines at UWM, as required programmatically by the School of Freshwater Sciences, including teaching an "Environmental Data Systems" course;
- Demonstrate effective and innovative teaching methods as measured through evaluative mechanisms;
- Mentor students pursuing completion of School of Freshwater Sciences degree programs, as well as related careers;
- Mentor students from underrepresented communities as they navigate their way through STEM disciplines, with an eye towards retention and success;
- Participate in the growth of the Freshwater Collaborative of Wisconsin and potentially develop and teach courses aimed at students from across UW System campuses.

Service (Expectation of 10% of Time)

The Wisconsin Idea within the UW System holds that university research should be applied to solve problems and improve health, quality of life, the environment, and agriculture for all citizens of the state. The successful candidate will help address pressing challenges for local and regional communities by engaging with external partners on climate and water issues. Some exciting opportunities for service include making academic research relevant to a variety of current challenges, such as:

- Examining anticipated changes in seasonality, stormwater flow, flooding, and combined sewer overflows, as a result of projected trends in warming, lake level variability, storm patterns, and the increased frequency of more intense precipitation events;
- Calibrating predictive landscape scale models that can help forecast fate and transport of contaminants and pathogens in light of a changing climate; and
- Informing green and grey infrastructure decisions, including management best practices and strategies, with an eye toward long-term investment.

Local and regional partners may include municipalities, sewerage districts, state and federal agencies, watershed groups, not-for-profits, health departments, educational organizations, and others.

Additionally, the appointed candidate will perform administrative duties as part of Service duties commensurate with a tenure-track appointment in the School.

To this end, the successful candidate is expected to:

- Participate and provide leadership in Program/Dept./College/University-wide committees.
- Act in an advisory capacity to local organizations, serve on committees external to UWM, present research findings as well as state of the science and other professional presentations, etc.;
- Collaborate with local and regional partners to help them achieve their climate goals; and
- Demonstrate leadership in professional/academic organizations at a national level.

Minimum Qualifications:

- Candidates must hold a Ph.D. in atmospheric science, freshwater science, oceanography, computer science, geography, or related field by time of appointment.
- Evidence of strong research skills.
- Evidence of commitment to quality teaching.

Preferred Qualifications:

- Background in fields related to climate and watershed science, demonstrating ability to address the challenges of integrating climate and watershed science at scales relevant to local landscapes (urban and rural), regional hydrology (Great Lakes), and ecosystem services.
- Significant experience in programming, data visualization, machine learning, statistics, and/or other data-driven techniques.
- Applied and/or interdisciplinary research experience, with skill in integrating risk assessment and data analytics techniques with observed data or numerical model output.
- Professional and community service, and the ability to work with community partners.
- Participation in activities promoting Diversity, Inclusion & Access for underrepresented groups in the sciences.
- Effective communication skills for audiences of diverse backgrounds, knowledge and interests.
- High-quality teaching and experiential learning engagement with diverse students at the undergraduate and/or graduate level.
- Extramural funding and successful grant writing experience.

- Record of publications in respected peer-reviewed academic journals.
- Postdoctoral or other relevant work experience.

Application Instructions:

All applicants will need to apply online at: <https://jobs.uwm.edu/postings/32986>

Submit electronically **(1)** a comprehensive curriculum vitae; **(2)** cover letter; **(3)** description for plans for independent research; **(4)** teaching philosophy including diversity statement, and, **(5)** contact information for 3 professional references(name, address, phone, email).

- In instances where the Search and Screen Committee is unable to ascertain from the candidates' application materials whether he/she/they meets any of the qualifications, they may be evaluated as not meeting such qualifications.

Questions should be directed to the co-chair of the Search and Screen Committee:

Jonathan D. W. Kahl, Professor of Atmospheric Science 414-251-9215.

This is a continuous recruitment. Review of applications will begin **November 13, 2021**. Applications received after **November 12, 2021** may not receive consideration. Screening of candidates is ongoing and will continue until a qualified candidate is chosen for this position. The names of those applicants who have not requested in writing that their identities be withheld and the names of all finalists will be released upon request.

UWM is an AA/EO employer: All applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, sexual orientation, gender identity/expression, disability, or protected veteran status.