The University of British Columbia, Faculty of Applied Sciences, School of Engineering

The School of Engineering at the Okanagan campus of the University of British Columbia invites applications for three tenure track positions in Civil Engineering at the rank of Assistant Professor. The anticipated start date is January 1, 2022.

Location

UBC’s Okanagan campus is situated in Kelowna on the unceded lands of the Okanagan people, and Kelowna is surrounded by agricultural areas, lakes, forests, and mountains. Kelowna is a four-season playground for a diversity of outdoor activities.

Our values

Our work is shaped by our values: professionalism and integrity; scholarship and teaching excellence; commitment to students; partnerships and collegiality; initiative, innovation, and willingness to change; community, the environment, and sustainability. We hold these values as an integral frame of reference to inform our decisions and actions at every level and in every situation. The ideal candidate will have a strong commitment to Indigenous engagement. As part of the University’s response to the Truth and Reconciliation Commission’s Calls to Action, UBC Okanagan has committed to supporting and implementing five key commitments, which can be found at https://ok.ubc.ca/about/indigenous-engagement/

Workday Ad #JR1101: Fate and Transport of Trace Contaminants of Emerging Concern

Growing environmental pressures and anthropogenic impacts on water resources require consideration for risk, transport, and removal of trace contaminants of emerging concern (TCEC) (e.g., pharmaceuticals and personal care products, pesticides, flame retardants, microplastics). This position is intended to support water resource engineering and environmental engineering at the Okanagan campus with a focus on the transport, fate, and remediation of TCEC in the environment and engineered systems. The candidate is expected to conduct multi-disciplinary research to couple experimental and modelling investigations at various scales, from bench to field. Data analytics is a key area of strength for the Okanagan campus, and the successful candidate will strengthen this growing research cluster with applications to water resources engineering.

Specific areas of interest and expertise include fate and transport of contaminants in aquatic environments, soil, groundwater, drinking water, or wastewater; anthropogenic and climate change impacts on water resources; water sustainability; water reuse. Candidates are sought with a background in environmental chemistry and toxicity, numerical modelling, and data analytics. Research addressing challenges faced by small, rural, and Indigenous communities is encouraged.
Applicants with a Ph.D. in Civil Engineering, Environmental Engineering, Chemical Engineering, or related disciplines are encouraged to apply.

**Workday Ad #JR1103: Water Resources and Water Supply**

Water research is a strong focus for the Okanagan campus. This position will support water resource engineering, environmental sustainability, and resilient infrastructure management research in the School of Engineering. This position will mainly focus on the applications of hydroinformatics and data analytics to solve diverse aquatic problems in the built and natural environment.

Areas of interest include hydraulics, hydrology, open channel flow, urban and stormwater management, flood and drought management. Research applications in the following areas are especially welcomed: climate change impacts on the water cycle, water sustainability, water distribution and wastewater collection, irrigation engineering, flood inundation modelling, hydro-technical aspects of dams, and other areas related to water resources engineering. Expertise in stochastic modelling, data analytics, numerical modelling, and geographic information systems will be considered assets.

Applicants with a Ph.D. in Civil Engineering or a related discipline are encouraged to apply.

**Workday Ad #JR1099: Thriving, Resilient Cities & Communities**

The Resilient Infrastructure Management option in the Civil Engineering program incorporates advanced modelling of infrastructure. The School of Engineering is creating core expertise in big data analytics, Internet of Things, cloud computing, blockchain technology, and digital twins for Smart Building and Smart City applications. This position will augment our strengths in big data analytics, smart energy, and smart cities.

Specific areas of interest include integrated BIM and GIS modelling, resiliency-based decision making, life-cycle cost, agent-based modelling, digital design/operation of smart buildings and cities, automated construction progress and performance monitoring, modelling of interconnected physical and social infrastructure, and computer vision applications in civil engineering.

Applicants with a Ph.D. in Civil Engineering or a related discipline are encouraged to apply.

**Eligibility and duties**

Applicants must have a PhD in Civil Engineering, Environmental Engineering, Chemical Engineering, or related disciplines and have either a demonstrated track record or possess a clear potential to achieve excellence in research and teaching. The successful candidate will be expected to develop an independent, internationally recognized research program, teach at the undergraduate and graduate levels, supervise and mentor Master’s and Ph.D. students, and provide service to the University and the community. The successful candidate is expected to register as a Professional Engineer in the Province of British Columbia.

**Diversity and inclusion**

Equity and diversity are essential to academic excellence, and UBC seeks to recruit and retain a diverse workforce to maintain the excellence of the University. An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged and offers students
richly varied disciplines, perspectives, and ways of knowing and learning. We encourage applications from members of groups that have been marginalized on any grounds enumerated under the B.C. Human Rights Code, including sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person. All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority. All positions are subject to final budgetary approval.

**Application submission**

Interested applicants should submit a CV, a list of four references, and research and teaching statements. In addition, please include a statement about your strengths and experiences in increasing equity, diversity, and inclusion in your research and the curriculum and in supporting diverse students. Applications must be submitted online at [https://hr.ubc.ca/careers-and-job-postings/faculty-careers](https://hr.ubc.ca/careers-and-job-postings/faculty-careers). Search and apply for the Workday Ad #; emailed applications will not be considered. Our department welcomes and encourages applications from members of marginalized groups. Accessibility or special consideration accommodations are available on request for all applicants at all stages of the selection process. To confidentially request accommodations, please contact Teija Wakeman via email Teija.wakeman@ubc.ca.

**Details to include on research, teaching, and diversity statements:**

**Research Statement** - Please include information about your research expertise and experience and about your research plan as a new faculty member, including as appropriate current and potential collaborators (at UBC and elsewhere) and sources of funding.

**Teaching Statement** - Your teaching statement should describe your teaching interests and experience. Also, explain your teaching philosophy, including specific examples that have informed the evolution of that teaching philosophy.

**Diversity Statement** - In your application, please include a statement describing your experience working with a diverse student body and your contributions to creating/advancing a culture of equity and inclusion on campus or within your discipline.

**Review of applications:**

Review of applications will begin April 15, 2021; all applications received by April 30, 2021, will receive full consideration.