Teck Professorship in Tailings Management and Innovation

We acknowledge that the Vancouver Campus of The University of British Columbia (UBC) is located on the traditional, ancestral and unceded territory of the xʷməθkʷəy̓əm (Musqueam).

The Norman B. Keevil Institute of Mining Engineering (the “Department”), part of the Faculty of Applied Science at the University of British Columbia (UBC) Vancouver campus, invites applications for a tenure-track faculty position in the area of Tailings Management and Innovation at the rank of Assistant or Associate Professor. Appointment at the rank of Associate Professor may be with tenure for a candidate of exceptional qualifications. In addition to the tenure stream appointment, the successful candidate will hold the honorific title of Teck Professorship in Tailings Management and Innovation for a specified term, renewable subject to a renewal process. The anticipated start date is January 2024 or as soon as possible thereafter.

Operating and maintaining tailings facilities to meet global best practices for safety throughout their life cycle is a top priority for the mineral resource sector. Whether in operation or in a state of safe closure, it is important to continually review tailing facilities and procedures and maintain the highest safety standard. Tailings management is an opportunity to work across the industry on new innovations and best practices.

The UBC’s Norman B. Keevil Institute of Mining Engineering offers a broad professional degree program, integrating courses on engineering principles, earth and mineral sciences, mining and mineral processing case studies, health, safety and environmental issues, social sciences and management, as well as economics and business. Emphasis is on providing students with comprehensive knowledge and hands-on skills to succeed in the industry. Our faculty members are active within the industry through research, consulting activities and involvement in professional societies. Further information is available at www.mining.ubc.ca.

Candidates must have a Ph.D degree in Mining, Civil, Geological, Environmental Engineering or a related field and should demonstrate the potential to achieve excellence in research and teaching. They must also be eligible to register as a Professional Engineer (P.Eng) with the Engineers and Geoscientists of British Columbia (EGBC). Registration is required within five years of appointment. For more information, please visit www.egbc.ca.

The successful candidate will be expected to develop an independent, multidisciplinary and internationally recognized research program and seek funding, both as an individual and in collaboration with others, from Government and industrial sources. The position will involve teaching at the undergraduate and graduate levels, the supervision of graduate students at the Master and Doctoral levels and the provision of service to the University and the broader community. Examples of research and teaching subjects may include but are not limited to tailings management, tailings dam safety and stability, risk assessment, tailings reuse, reprocessing of tailings to recover additional values and dewatering of fines.
Expertise in one or more of the following areas is highly desirable:

- Mine waste management leading practices, best available technologies (BAT) and best applicable practice (BAP) for safe, sustainable management of tailings and mine waste rock materials.
- Advanced understanding of key concepts in the safe and sustainable design, construction, operation, and closure of tailings storage facilities, waste rock dumps and heap leaching facilities.
- Proven knowledge of the complex behaviour of tailings materials, static and dynamic liquefaction of tailings, rheology of aqueous mineral suspensions, interparticle aggregation and dispersion phenomena, and relevant principles of critical state soil mechanics.
- Advanced understanding of the key principles of tailings dam safety, and risk management of tailings storage facilities.
- Proven experience in advanced laboratory testing, simulation and/or numerical modelling techniques of tailings materials and their behaviour.
- Introducing the latest cutting-edge technologies in optimized, robust, and resilient, safe design for tailings storage facilities, waste rock dumps, and associated water management and infrastructure, adapting to climatic changes and ever-changing ecosystems.
- Be familiar and up to date with the latest worldwide developments in the area of tailings management and governance, as they relate to Global Tailings Standard on Tailings Management (GISTM), the recent International Council for Mining and Metals (ICMM) guidance documents, and other country or international organizations;
- Proven understanding of social and societal dimensions in the design, operation, monitoring, and closure of mine waste management facilities, and today’s stringent requirements for responsible mining and related ESG (environmental, social, and government) factors and needs for sustainable mining operations.

The successful candidate must embrace productive relationships across cultural differences and develop an equitable, diverse and inclusive teaching and research approach that promotes a respectful environment for all students, staff and faculty. Collaboration with a variety of researchers on and off campus will be essential. The strategic plan of the Mining Engineering Department specifies diversity and inclusion as key priorities. We welcome colleagues with experiences and competencies that can contribute to the principles of equity, diversity, and inclusion throughout campus life.

All applications must be submitted to the UBC Faculty Careers website and include:

- a cover letter,
- a detailed Curriculum Vitae,
- a five-year research program plan (up to 4 pages),
- a statement of teaching and training philosophy (up to 4 pages),
- a diversity statement, including a statement describing their experience working with a diverse community and a plan for creating/advancing a culture of equity and inclusion on campus or within their discipline (1 page).
- a list of current journal publications and conference papers/presentations,
- a copy of at least 3 significant research publications/presentations, and
- the names and contact information of four references.
The University of British Columbia is partnering with the executive search firm Perrett Laver on this search. Applications should consist of a full CV detailing academic and professional qualifications. Relevant achievements should be accompanied by a covering letter describing briefly how candidates meet the ‘candidate criteria’ listed above, why the appointment is of interest, and what they believe they bring to the role.

The closing date for applications is 11:59 pm (Pacific Time) on July 21, 2023. Please ensure to submit your applications via the website below:

https://ubc.wd10.myworkdayjobs.com/en-US/ubcfacultyjobs/job/UBC-Vancouver-Campus/Assistant-Professor_JR12375-1

The University is committed to creating and maintaining an inclusive and equitable work environment for all members of its workforce. An inclusive work environment presumes an environment where differences are accepted, recognized and integrated into current structures, planning and decision-making modes. Within this hiring process, UBC will make efforts to create an inclusive and equitable process for all candidates (including but not limited to people with disabilities). Accommodations are available on request for all candidates taking part in the selection process.

Equity and diversity are essential to academic excellence. An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged. 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.