

# Assistant Professor, Transdisciplinary Space Science and Aerospace Technology, Faculty of Science and Schulich School of Engineering

**Job ID:** 31315

**Location:** Main Campus

Updated March 12, 2024

We would like to take this opportunity to acknowledge the traditional territories of the people of the Treaty 7 region in Southern Alberta.

The City of Calgary is also home to Métis Nation of Alberta, Districts 5 and 6.

## Position Description

The **Department of Physics and Astronomy** in the **Faculty of Science** in partnership with the **Schulich School of Engineering** at the University of Calgary seek outstanding candidates for a full-time **Assistant Professor (tenure-track)** in transdisciplinary research spanning the areas of **Space Science and Aerospace Technology**. The anticipated start date is July 1, 2024, or a mutually agreed-upon date.

The successful applicant will demonstrate their potential to work within and across disciplines, and to contribute to a broad research enterprise ranging from fundamental research to development, demonstration and deployment of new technologies in the space/aerospace domain. Examples of potential research programs include development of scientific instrumentation to be deployed on satellites and rockets; and numerical or experimental studies of the operation of spacecraft or high-altitude aircraft **that support scientific studies in near-Earth space, low-Earth orbit or during atmospheric re-entry**. Additionally, the new hire will be expected to teach courses in Physics or Engineering at the graduate and undergraduate levels, engage in scholarly activities and participate in departmental and university service. This position will report to the Head of the home department, which will be determined during negotiation leading to an offer.

This position is aligned with the University of Calgary's new overall strategic plan, [Ahead of Tomorrow](#), and our university-wide research strategy in [New Earth-Space Technologies](#). New initiatives in this area will be able to leverage a recent \$7M investment from the Alberta Major Innovation Fund to UC in "Space and Defence Technologies", to allow researchers to partner with industry and capitalize on space commerce, making Alberta a global hub for space and aerospace innovation.

Applicants must hold a PhD in Physics or Engineering (or equivalent) at the time of appointment. Postdoctoral experience is an asset. Successful applicants must be enthusiastic about contributing to teaching and research, and demonstrate the potential to excel in both. Specifically, they must convincingly demonstrate evidence of the following:

- Excellent emerging world-class research and research creativity.
- Robust track record of publications in high-quality journals.
- Ability to develop an original, innovative and productive externally-funded research program.
- Potential to achieve international recognition in their field in the next five to ten years.
- Potential to attract, develop and retain excellent trainees, students and future researchers.
- Potential to deliver high-quality instruction at the undergraduate and graduate levels.
- Potential to employ innovative, student-centered teaching and assessment methods.
- Capacity to collaborate, lead, and work well as part of a team.
- Commitment to engage in service to the department, university, and external communities.
- Foster the Faculty's relations with industry, government departments, professional bodies and the wider community.

Interested individuals are encouraged to apply online via the 'Apply Now' link on the UCalgary careers website: <https://careers.ucalgary.ca/jobs/14102370-assistant-professor-transdisciplinary-space-science-and-aerospace-technology-faculty-of-science-and-schulich-school-of-engineering>

**Please submit your application in one PDF file** and include the following:

- Curriculum vitae, including a complete publication list and the name and contact information of three references.
- Concise description of past research and future research plan.
- Statement of teaching philosophy.

**Application Deadline: April 23, 2024**

**Questions may be addressed to:**

David Knudsen, Interim Head, Department of Physics and Astronomy

Email: [knudsen@ucalgary.ca](mailto:knudsen@ucalgary.ca)

Since its founding in 1966, the **Faculty of Science's Department of Physics and Astronomy (PHAS)** has led or contributed to a long chain of space-based scientific discoveries enabled by innovative technological advances including the first [global-scale images](#) of the aurora borealis from space, and development and operation of Canada's university-led-and-operated small satellite, [CASSIOPE](#). PHAS faculty are currently working to advance the next generation of space experiments, including the Alberta university-led satellite mission, [RADICALS](#).

The **Schulich School of Engineering** conducts aerospace and space-related research in multiple departments including Electrical and Software Engineering (ESE), Mechanical and Manufacturing Engineering (MME), and Geomatics Engineering (GE). Research areas span topics ranging from advanced controls and avionics; to numerical analysis, simulation and flight demonstration of aircraft, rockets, and propulsion systems; and precision navigation and sensor fusion and atmospheric effects on GPS/GNSS systems.

The University of Calgary recognizes that candidates have varying career paths and that career interruptions can be part of an excellent academic record. Candidates are encouraged but not required to provide any relevant information about their experience and/or career interruptions to allow for a fair assessment of their application. Selection committees have been instructed to give careful consideration to, and be sensitive to the impact of career interruptions, when assessing the candidate's research productivity.

The University of Calgary has launched an institution-wide [Indigenous Strategy](#) committing to creating a rich, vibrant, and culturally competent campus that welcomes and supports Indigenous Peoples, encourages Indigenous community partnerships, is inclusive of Indigenous perspectives in all that we do.

*As an equitable and inclusive employer, the University of Calgary recognizes that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their academic and professional success while they are here. In particular, we encourage members of the designated groups (women, Indigenous peoples, persons with disabilities, members of visible/racialized minorities, and diverse sexual orientation and gender identities) to apply. To ensure a fair and equitable assessment, we offer accommodation at any stage during the recruitment process to applicants with disabilities. Questions regarding [diversity] EDI at UCalgary can be sent to the [Office of Equity, Diversity and Inclusion \(equity@ucalgary.ca\)](#) and requests for accommodations can be sent to Human Resources ([hrhire@ucalgary.ca](#)).*

*All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority. In this connection, at the time of your application, please answer the following question: Are you a Canadian citizen or a permanent resident of Canada? (Yes/No)*

### **Additional Information**

For a listing of all academic opportunities at the University of Calgary, view our [Academic Careers website](#). For more information about the Faculty of Science, [click here](#). For more information about the Schulich School of Engineering, [click here](#).

### **About the University of Calgary**

UCalgary is Canada's entrepreneurial university, located in Canada's most enterprising city. It is a top research university and one of the highest-ranked universities of its age. Founded in 1966, its 36,000 students experience an innovative learning environment, made rich by research, hands-on experiences and entrepreneurial thinking. It is [Canada's leader in the creation of start-ups](#). [Start something](#) today at the University of Calgary. For more information, visit [ucalgary.ca](#).

### **About Calgary, Alberta**

Calgary is one of the world's cleanest cities and has been named one of the world's most livable cities for years. Calgary is a city of leaders - in business, community, philanthropy and volunteerism. Calgaryans benefit from a growing number of world-class dining and cultural events and enjoy more days of sunshine per year than any other major Canadian city. Calgary is less than an hour's drive from the majestic Rocky Mountains and boasts the most extensive urban pathway and bikeway network in North America.