2 Ph.D. Positions in Computational Materials Science at the University of Manitoba, Canada
University of Manitoba

Job Title	2 Ph.D. Positions in Computational Materials Science at the University of Manitoba, Canada
Department	Department of Mechanical and Manufacturing Engineering
	https://umanitoba.ca/engineering/mechanical
Institution	University of Manitoba
	Winnipeg,
Date Posted	Sep. 17, 2025
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Material/Metallurgy
Apply By Email	Chuang.Deng@umanitoba.ca

Job Description

We are currently recruiting 2 Ph.D. students in the field of computational materials science at the University of Manitoba, Canada.

Main Research Direction: (1) Position 1 will focus on the structure, thermodynamics and/or kinetics of grain
boundaries in metals; (2) Position 2 will focus on the design and characterization of high-entropy steels. Both
positions will use atomistic simulations and machine learning as the main tools.

Supervisor: Dr. Chuang Deng (https://scholar.google.ca/citations?hl=en&user=k62IEhQAAAAJ)

2 Ph.D. Positions in Computational Materials Science at the University of Manitoba, Canada
University of Manitoba

Fellowship: $25000 CAD/year

Requirements:
The candidate should
1) hold a M.Sc. degree in Materials Sciences, physics, mechanical engineering, or a related field;
2) have good communication skills (both writing and oral) in English?
3) have strong interests in atomistic simulations (MD, DFT, Monte Carlo, etc.) and machine learning. Previous
experience in these fields is not required but highly desired;
4) have good programming skills (python, C, Fortran, etc.).

Application Procedure:
1) Interested students please send a copy of the official transcripts, a C.V., and inquiries to Dr. Chuang Deng
(chuang.deng@umanitoba.ca). 2)Suitable applicants will be contacted for interview.

About Us: The University of Manitoba (U of M or UM) is a public research university in Manitoba, Canada. The
university maintains a reputation as a top research-intensive post-secondary educational institution and conducts
more research annually than any other university in the region. The teaching and research activities at the
Department of Mechanical Engineering cover multiple mechanical engineering fields including solid mechanics,
materials sciences, fluid mechanics, manufacturing and e.g. The department has several well-established
laboratories that can handle the design and testing of advanced alloy materials, smart materials and vibration
systems equipped with high-performance computers, LMS data acquisition system, Polytec laser vibrometer,
Nanosurf atomic force microscope, Nanoindentation test bench and Electron scanning/transmission microscopes.
World-leading high performance computing resources are available through Compute Canada and WestGrid.

2 Ph.D. Positions in Computational Materials Science at the University of Manitoba, Canada
University of Manitoba

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Department of Mechanical and Manufacturing
Engineering
University of Manitoba
Winnipeg,
Canada