

Enhancing the number of successful interdisciplinary research teams or clusters of scholars drawn from diverse areas of expertise who will work to develop research strategies and applications that improves success rates.

Increasing the number of scholars who play significant roles in major national and international research programs, conferences and scholarly meetings, grant review panels and editorial boards.

Building and strengthening relationships with a variety of external organizations (e.g. other universities, NCEs) and other constituencies (e.g. governments, industry, NGOs, community) will be deepened and enhanced.

Growing our reach in knowledge mobilization and the transfer of intellectual property outside of the university via traditional academic means (enhanced publication records) and to the general public.

Encouraging and supporting a research environment that is committed to EDI principles that will guide research teams, Chairs and how infrastructure projects are developed and support faculty growth.

Research Thrusts

The University of Winnipeg has identified ten key research thrusts in which to develop or maintain excellence.

1. Applied Health and Medical Research

2. Cultural Studies

Cultural Studies at the University of Winnipeg is a strong interdisciplinary/multidisciplinary research area where our researchers seek to explore culture and the arts as part of a social, economic and political environment.

Departments involved in this interdisciplinary/multidisciplinary field of research include: Education, English, (Art) History, Geography, Politics, Rheto

5. Advanced Research Computing and Data Analytics

Large-capacity, low-cost storage coupled with inexpensive sensors have led to an enormous growth of data in many fields. Advanced research computing hardware is needed to analyze, visualize, model, extract patterns of interest, and develop algorithms from these large datasets. GPU-based computing, for example, is essential for machine learning and artificial intelligence development and applications. The University of Winnipeg established a GPU teaching centre in 2014, followed by the *Dr. Ezzat A. Ibrahim GPU Educational Lab* in 2018. Researchers in the departments of Applied Computer Science, Biology, Chemistry, Mathematics, and Physics have benefited immensely from such support, leading to many interdisciplinary, collaborative projects. The TerraByte Research Group, established in 2017, develops automated methods for generating and labeling large amounts of image data that are in turn used to develop data-driven decision making and machine learning applications for agriculture. Their data is publicly available via the Digital Research Alliance of Canada's digital object storage system, and the group has taken a lead role to in the process of analyzing, curating, and maintaining large datasets that can be accessed by other Canadian researchers and innovators. This is just one example of how research and real-world applications rely more and more on massive data sets. Through its investment in

8. Planetary Science

Planetary exploration and the adaptation of planetary remote sensing techniques to various terrestrial applications is a strong research area at The University of Winnipeg. Exploration into the solar system, particularly Mars, is now the focus of Canadian and international space agencies. Research performed in our Planetary Spectrophotometer Facility (PSF), and Centre for Scientific and Curatorial Analysis of Painting Elements (C-SCAPE), plays a major role in this exploration. Research conducted within the PSF is supporting analysis of data from a number of existing and future planetary missions. The research in this area being conducted at the University is done in close collaboration with Canadian institutions, international groups and academic institutions, and Canadian companies. The expertise and world-class mix of research instrumentation housed within these research centers has resulted in a number of potentially commercially viable projects being launched. These include work on low-cost, real-time analysis of diamond indicator minerals and oil sand cores.

9. Urban Studies

Research in this area focuses on urban issues facing communities in the coming decades. These include growing disparities of wealth, shrinking household size, urban migration and integration of Indigenous and newcomer populations, housing and community renewal, and the role of community organizations in urban redevelopment planning. As an institution, we are particularly interested in contributing to the development of policies and programs that will address the needs of the Indigenous, refugee, and immigrant communities that make-up the largest proportion of Winnipeg's inner-city neighbourhoods. This is an area which is interdisciplinary and action-based by nature and involves collaboration with community organizations and government departments. As an urban institution we are uniquely positioned as an active community member which gives us the opportunity to conduct research within our surroundings community as well as nationally.

10. Justice and Access to Legal Information

Justice, as a broad area of focus, is well represented at the University of Winnipeg. Our Department of Criminal Justice is home to interdisciplinary research that explores current and historic legal issues in the Canadian criminal justice system. With a new Master's program and the launch of The Access to Information and Justice Centre, our faculty are well positioned to address many complex issues facing the Canadian justice system.

Equity, Diversity and Inclusion (EDI) and CRC Nominations

The University of Winnipeg has a strong EDI commitment in its faculty and staff hires to achieve equitable representation. Within our institutional Employment Equity and Diversity Policy (June 1, 2015) we identify measures for removing barriers to the recruitment, selection, promotion and retention of individuals without regard to ancestry, including colour and perceived race; nationality or national origin, religion or creed or religious belief, religious association or activity; age; sex, including pregnancy; gender identity, sexual orientation, marital and family status, source of income, political belief, physical or mental disability, or social disadvantage. To date the university has appointed 50% of its Canada Research Chairs to females, and 10% of appointments have identified as being a member of a visible minority.

The University of Winnipeg acknowledges that the principles of responsible stewardship, public accountability, and equity, diversity, and inclusion will be respected in decisions made regarding the CRC program and in the allocation of CFI funding. The University of Winnipeg's CRC Equity Plan is a central part of this process: <https://www.uwinnipeg.ca/research/equity,-diversity--inclusion-in-the-canada-research-chairs-program.html>. It is important to acknowledge that the University of Winnipeg is creating a central HUB for Equity information and

