

**St. Francis Xavier University**

**Strategic Research Plan**

2012

**Research Mission:** Research is a fundamental part of St. Francis Xavier's institutional role as a University and is recognized as one of the primary roles of the University's faculty. This role both informs and is intertwined with the University's role as an educational institution, and is an essential component of the University's commitment to service.

**Research Vision:** Through research the University will contribute to the enlargement of academic knowledge, to the support of knowledge synthesis and exchange, to university – community collaborations, and to economic development. By engaging scholars and students in high quality research, StFX will enhance its position amongst Canada's premier, primarily undergraduate, research universities.

**Definitions:** For the purpose of this document research is taken to mean activities involving the creation of new knowledge, and/or creative use of existing knowledge, and/or organization and synthesis of existing knowledge and/or creative expression by a faculty member, or by students, post-doctoral fellows or research associates supervised by a faculty member, in the faculty member's area of expertise.

Knowledge dissemination, knowledge translation and knowledge exchange are all parts of the research process. In particular results and conclusions from research activities are normally made available through scholarly articles, public presentations or other means appropriate to the area of expertise and nature of the work.

**Goals and Actions:** StFX will build and enhance an environment that supports scholarly research in its many different forms, and meaningfully engages students in research experience. To achieve this goal, StFX will

Facilitate synergy and increase research collaboration by building and supporting research clusters that reflect research strengths and areas of growth;

Increase the training opportunities and skills development of highly qualified personnel by ensuring opportunities for productive research involvement of undergraduate and graduate students, and post-doctoral fellows;

Develop research and disseminate knowledge at the regional, national and international levels;

Strengthen the physical and technological infrastructure that supports high quality research by accessing funding opportunities;

Support faculty applying to external research granting agencies, and continue to develop services and infrastructure that supports knowledge transfer and exchange;

Monitor institutional progress in advancing the research profile of the University, and

Celebrate the research achievements of faculty and students.

### **Research Clusters**

The individual research programs of faculty members are the foundation of the University's research contribution. In many cases individual programs both contribute to, and are facilitated and enhanced by collaborations. Collaborations occur between faculty within the University, with faculty at other universities and with a variety of research partners including community organizations, government agencies, businesses and industry. Collaborations occur at local, regional national and international levels.

To develop this research plan, the University has through collegial process identified the following as collaborative research cluster themes for which the university has existing or developing concentrations of expertise. The clusters embrace the crosscutting themes of being inter-disciplinary in nature, of providing extensive opportunities for research collaboration beyond the University, and of addressing issues of regional, national or international significance.

The research clusters are not intended to act as isolated entities. Rather, we understand there to be synergies and interconnection within and between the clusters that support the growth of research at the University. While the work of some researchers will be mainly within the domain of a single cluster many researchers will participate in two or more clusters. Similarly, in many cases the examples listed with a particular cluster are not strictly limited to one cluster but rather provide connections between clusters.

Collectively the clusters contribute to and are linked by broader societal areas such as sustainability (cultural, economic, environmental and community), ethics and social justice, and the development of leadership.

### **Culture and Human Development Cluster**

The study of culture and human development spans a wide range of topics aimed at increasing our understanding of how humans develop individually, and collectively. Research may focus on any psychological, social, educational or artistic aspect of the human experience, from the level of the individual to the global community. This cluster is grounded in the knowledge that understanding and celebrating human diversity is critical to the functioning and sustainability of a multicultural world.

Examples of themes addressed include

- Development Studies
- Early Childhood Development
- Learning and Educational Development
- Visual and Performance Arts

### **Energy, Natural Resources and Environment Cluster**

The primary themes of this cluster draw together a vast range of investigation, from basic, curiosity driven research to applied, product-driven outcomes. Research in this cluster encompasses some of the most relevant areas of current human endeavour in today's rapidly changing world, and includes subjects such as alternative energies and environmental sustainability. Researchers in this area seek knowledge that will not only contribute to further, fundamental understanding of these themes and closely related areas, but will also be key to improving on humanity's ability to cope and co-exist with its environment in the future.

Examples of themes addressed include

- Coastal Environments
- Climate Change
- Modeling and Computer Simulation
- Natural Resources Management
- New Materials
- Novel Synthetic Methodologies

### **Health and Wellness Cluster**

Human health and wellness are determined by many known factors, including social justice and ethical issues impacting public system and policy leadership as well as the biological and environmental causes of illness and disease. This cluster includes health service, policy, and outcomes research that examines the multi-dimensionality of health inequities and the development of healthy and sustainable communities, public systems, and public policies. This cluster also includes biomedical research that examines the biochemical, biophysical, genetic, and psychological aspects of human health and wellness as well as the burden of illness and disease and associated treatments. Research in this cluster is often interdisciplinary, inter-institutional, and cross-sectoral in nature and it draws on pivotal aspects of other research clusters at StFX.

Examples of themes addressed include

- Societal determinants of health
- Primary Health Care: health promotion and population health
- Strengthening health systems to address health inequities
- Biophysical applications to health
- Biochemical causes of disease

- Pharmacological development

### **Humanities Cluster**

Humanities research is focused on fundamental concerns of humanity, particularly as expressed in a wide variety of cultural and historical artifacts, such as philosophical treatises, religious texts, works of literature or art, cultural traditions, and historical documents. Humanities research carefully collects and interprets these materials in order to arrive at an understanding of the patterns and values by which humans have given shape to their experience over time.

Examples of themes addressed include

- Atlantic Canadian Communities
- Ethics, including Bioethics
- Religious and Cultural Practices and Traditions
- Celtic and Gaelic Culture
- Language, Literature, Narrative, and Media

### **Leadership and Organizational Development**

This cluster examines issues related to individual and collective leadership, both separately and jointly, regarding the administration, management and evolution of organizations. We describe *organization* as any collective of two or more individuals who foster meaningful relationships, develop aligned interests and/or shared goals, and expend considerable energy toward achieving mutually beneficial outcomes. Such outcomes can either be manifest at the individual (learning, personal growth, leadership, meaning and identity), organizational (increased efficiencies, sustainability), industry (market forces, change management), community or international levels (cross-cultural and multinational studies) and examined through lenses of the economic, social, political, legal, technological and/or the natural environments. Outcomes can be either at the micro, meso, or macro level, or focused on the movement in between.

Examples of themes addressed include

- Evaluation and Performance Measurement
- Integrative Technology
- Learning and Instructional Development
- Responsible Leadership
- Socio-Economic Development
- Technology and Change

### **Public Policy, Governance and Social Justice**

This cluster is rooted in the study of power relations between states and societies. Public policy analysis asks questions about the determinants and impacts of

decision making by state authorities. Governance posits that such relationships extend beyond the predominantly hierarchical processes of conventional states to include complex networks of authority in civil society and market systems, in parallel or in concert with traditional hierarchies.

Examples of themes addressed include:

- Indigenous Peoples and Sustainable Development
- Public Policy and the Digital World
- Economic and social policy analysis
- Multilevel governance in transnational, federal and community settings
- Comparative political change

### Canada Research Chairs

Currently, all of the Canada Research Chairs allocated to St. Francis Xavier University are assigned in support of the research clusters described above. The following table shows the distribution of Canada Research Chairs.

Dr. Todd Boyle	CRC in Integrative Technologies (Tier II SSHRC)
Dr. Petra Hauf	CRC in Human Development (Tier II NSERC)
Dr. Lisa Kellman	CRC in Environmental Sciences (Tier II NSERC)
Dr. Derek Leaist	CRC in Colloidal Chemistry (Tier I NSERC)
Dr. Leslie Jane McMillan	CRC in Indigenous People and Sustainable Communities (Tier II, SSHRC)
Dr. Peter Poole	CRC in Modeling and Simulation (Tier II NSERC)
Dr. Ricardo Scrosati	CRC in Aquatic Ecology (Tier II NSERC)

As Canada Research Chairs become available the University will make strategic appointments to these Chairs in order to build research capacity in the areas indicated by the research cluster themes.

The numbers of male and female Canada Research Chairs will be monitored over time to ensure reasonable representations of both sexes. Appointments of Canada Research Chairs will be made in such a way as to be reasonably consistent with the principles and objectives for equity as described in Articles 1.8.1 and 1.8.2 of the StFX/AUT Collective Agreement.

## **Highly Qualified Personnel**

It is essential to engage students and new scholars actively in the process of knowledge generation and application. In all cases the University's criteria for offering research experience to undergraduate students, graduate students and post-doctoral fellows are the ability to offer a high quality program, the benefit to the individual, and the benefit to the University's research and service agendas.

StFX has a tradition of meaningful undergraduate student engagement in research through honours theses, summer research internships and other opportunities to work with faculty mentors on research. The University will continue its commitment to providing undergraduates with research experience and will expand the opportunities for undergraduates to engage in research. Moreover the University will continue to highlight the research achievements of its undergraduates.

The University will continue to selectively expand its support of graduate studies where this complements and supports faculty research. Emphasis will be placed on areas of graduate studies consistent with the research clusters and cross-cutting themes described above.

The University will continue to welcome post-doctoral fellows and visiting researchers by recognizing their vital contribution to the research life of the University.

## **Research with Communities**

Research at StFX expands and enriches the knowledge of the academic discipline based academic communities and is the foundation of interdisciplinary approaches to complex problems.

The University has a strong tradition of working with communities at local, regional, national and international levels to achieve community sustainability and empowerment. The University will support research and knowledge exchange that is consistent with this tradition and which seeks to achieve social justice.

Structures of the University which promote these aims and which reflect the University's leadership in working with communities include the Coady International Institute, the Service Learning Program, and the Centre for Regional Studies. The University collaborates with external partners to foster knowledge synthesis and exchange, including the hosting of the National Collaborating Centre for Determinants of Health.

Research areas addressed by the Coady International Institute include innovation in how people are organizing to achieve more effective access to markets and more

effective voice in the policies that shape their livelihoods. Given the shifting roles and responsibilities of state, market, and civil society institutions, and the pervasive effects of climate change, a priority is to understand how local leadership generates effective responses to both challenges and opportunity in this environment. A particular focus is on women's experience of collective action and women's leadership.

The Service Learning Program for example provides students with opportunities for applied research in the context of community issues and provides faculty with opportunities to carry out research on service learning.

The Centre for Regional Studies is aligned with both the academic and social goals of the University, through its mandate to promote research into the social, economic, cultural and political issues of relevance to Atlantic Canada, and to eastern Nova Scotia in particular. The Centre is also committed to collaborative work with groups and organizations within the region, and to sharing the results of research.

The University's commitment to knowledge synthesis and exchange to improve public health for all, and to address health inequalities is reflected in its hosting of the National Collaborating Centre for Determinants of Health. This Centre is one of six National Collaborating Centres across Canada. It works nationally with academics, the Public Health System and other centres to mobilize knowledge generated through research to improve health and to identify knowledge gaps.

## **Evaluation**

Within the context of evaluating institutional research progress, and taking into account the range of activities that contribute to research as defined in this document, measures of research activity may vary from discipline to discipline and may contain quantitative indicators as well as qualitative measures appropriate to the discipline

Progress towards the research vision and fostering of achievements consistent with the research mission will be monitored through a consultative process allowing for a range of indicators and measures. The Associate Vice-President Research following consultation with the Research Advisory Committee will issue a report on progress in research to the University Community at a General Faculty meeting at least annually. The structure of this annual report will be designed to address the research goals and actions as described in this Strategic Research Plan.

The report on progress in research will contain both comparative analysis as well as absolute measures. Comparative evaluation will normally be based on a comparison group drawn from the Atlantic Region primarily undergraduate universities.



## **History of this document**

The Academic Priorities and Planning Committee gave approval of the University's first Strategic Research Plan in 2002. Versions of the Strategic Research Plan that retained the structure of the original plan were developed between 2002 and 2010 to accommodate the developing research program of the University.

In 2010/11 the University undertook a renewal of its Strategic Research Plan through a process that was meant to be both representative and inclusive. The ad-hoc committee on research, including elected members of faculty, members of the existing ad-hoc research advisory committee and ex officio members (Chair, Graduate Studies and Associate Vice-President Research), developed the draft of this document.

During its deliberations the Committee used both informal and formal means of consultation. Formal consultations included presentations to the Department Chairs and to the General Faculty of the University. The final draft was posted on the RSG website for comments prior to being forwarded to the Academic Priorities and Planning Committee.

The document was approved by the Academic Priorities and Planning Committee on January 17, 2012, and approved by the University Senate on February 6, 2012.