

St. Francis Xavier University

Overview

St. Francis Xavier University (StFX), founded in 1853 in Nova Scotia, has become Canada's premiere undergraduate university consistently receiving the highest marks in the Country for academics. The Research Services Group at StFX works with faculty, students, funding agencies and external research partners to support, grow and encourage a vibrant culture of research.

Research Capabilities

Culture and Human Development

- Range of topics aimed at increasing understanding of how humans develop individually and collectively
- Psychological, social educational or artistic
- Sample Themes
 - Development Studies
 - Early Childhood Development
 - Learning and Education Development

Energy, Natural Resources and Environment

- Sample Themes
 - Coastal Environments
 - Climate Change
 - Modeling and Computer Simulation
 - Natural Resource Management
 - New Materials
 - Novel Synthetic Methodologies
- Projects
 - Social Research for Sustainable Fisheries
 - St. Georges Bay Ecosystem Project

Health and Wellness

- Health services, policy, and outcomes
- Development of healthy and sustainable communities, public systems and public policies
- Biochemical, biophysical, genetic and psychological aspects of human health and wellness
- Burden of disease and associated treatments
- Sample Themes
 - 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

- Fundamental concerns of humanity
- Sample Themes
 - Atlantic Canadian Communities
 - Ethics, including bioethics
 - Religious and Cultural Practices and Tradition
 - Celtic and Gaelic Culture
 - Language, Literature, Narrative and Media
- Project: Gender, Race, and Class Health Research Group
- The Center for research on Culture and Human Development

Facilities

- ACEnet (Atlantic Computational Excellence Network)
- Behavioural Neuroscience Laboratory Dr. Karen Brebner and Dr. John McKenna
- Centre for Applied Petroleum Sciences
 - Biofilms
 - High Performance Computing
 - Colloids
 - Other Oil & Gas-Related Expertise
- Centre for Biofouling Research
 - For submerged surfaces in ocean climate
- Centre for Logic and Information
 - Research in modeling and reasoning about complex and distributed processes.
 - Applications directed to the development of innovative software for verifiable, dynamic, adaptive software for process management, information exchange and data integration.
- Centre for Philosophy, Theology, and Cultural Traditions
 - Religion and technology, dialogue and tradition, cross cultural religious truth, body and spirit
- Centre for Post-Communist Studies
 - Communist and post-communist studies across Eastern Europe, the former Soviet Union, China, and other parts of the world
- Centre for Regional Studies (CRS)
 - Research related to the social, political, economic, cultural and historical dimensions of Atlantic Canadian life

- Climate & Atmospheric Sciences Institute (CASI)
 - Climate dynamics
 - Climate change
 - Renewable energies (geothermal and wind power)
 - Ice dynamics
 - Climate models
 - Land surface processes
- Community Science Centre Association (CSCA)
 - A not-for-profit organization which promotes the exploration and awareness of science and technology.
- Comparative Biomechanics Laboratory
 - Mechanics of locomotion in marine invertebrates
 - Tissue Mechanics
 - Animal Locomotion
 - Equipment
 - Dantec P.I.V. System and 1000 Hz high-speed video camera.
 - An underwater treadmill for behavioural observations of walking invertebrates
 - A computer-controlled robotic system for studies modelling limb mechanics
 - Cambridge Technology Muscle Lever Systems, with a variety of LabView based control systems
 - Video Dimension Analyzer and a variety of video-based recording technology
 - Leitz Polarizing photomicroscope, with capability of making quantitative measurements of birefringence
- CREATE Training Programs in Climate Science (TPCS)
 - Collaboration of 8 researchers at 4 institutions in Atlantic Canada on impacts of climate change
- Environmental Sciences Research Centre (ESRC)
- Food Research Laboratory (FRL)
 - Seafood and dairy products
 - Product development
 - Fourier transform infrared spectroscopy
 - Mid and near infrared
- Health Literacy in Rural Nova Scotia Research Project
 - Exploring health literacy issues from the broad perspective of Health Canada's Determinants of Health
 - A community-based approach to health literacy using participatory research
 - Health literacy: Expanding practitioners' horizons through collaborative research. Journal of Interprofessional Care
 - Taking Off the Blindfold: Seeing How Literacy Affects Health(HTML)

- If you were me, how could you make it better? Responding to the challenge of literacy and health
- Hive for Feminist Research (new initiative)
- Infant Action and Cognition Laboratory
 - Infant and child development are currently being studied in the lab in the areas of empathy, emotions, the perception of biological motions, action understanding, and making inferences about the weights of objects
- Infant Development Laboratory
 - How infants use visual, auditory, and tactile stimulation to learn about themselves and others
 - How infants use the contingency present in normal social interactions with others and in play with objects to develop their sense of self agency
 - How infants make use of others' interactions with them to learn about the complexities of language and play, both of which are symbolic systems which allow for expansions in communications and memory
- Invertebrate Neuroethology Laboratory
 - Field behaviour of marine invertebrates (either intertidal or underwater with SCUBA)
 - Laboratory experiments on invertebrate behaviours
 - Computer-based video analysis of behaviours
 - Neurobiology of slugs and snails
 - Confocal microscopy exploring nervous system anatomy
 - Mathematical modeling of behaviour
- Marine Ecology Laboratory
 - Ecology of marine rocky shores
 - field behaviour of marine invertebrates (either intertidal or underwater with SCUBA)
 - laboratory experiments on invertebrate behaviours
 - computer-based video analysis of behaviours
 - neurobiology of slugs and snails
 - confocal microscopy exploring nervous system anatomy
 - mathematical modeling of behaviour
- McLachlan Laboratory of Aquatic Plant Resources
- National Collaborating Centre for Determinants of Health (NCCDH)
 - Focus is on the social and economic factors that influence the health of Canadians
 - The Promising Practices for Health Equity
 - Public Health Leadership
 - Population Health Status Reporting
- Parent and Child Interaction Laboratory
 - The developmental progress of children adopted to Nova Scotia from orphanages in China

- Examining parent child interaction during play and how such interaction reflects the parent child relationship.
- Public Policy and Governance Research Centre
- SafetyNET-Rx Research Lab
 - aimed at improving the reporting and learning from medication errors in Canadian community pharmacies
 - Network of pharmacy stakeholders including pharmacists, technicians, researchers, provincial regulatory and non-profit groups
- TPI [physics]
- X-CELL Analytical Service Lab
 - Full service, state of the art lab for measurement of physical properties of complex fluids
 - Biodiesel Analysis
 - Pharmaceutical Testing
 - Petroleum Fluids Testing
 - Oils and Fats Analysis

Contact

Andrew Kendall
Manager
(902) 867-3660
akendall@stfx.ca