# MPHEC Maritime Provinces Higher Education Commission Post-Secondary Research in Atlantic Canada: Institutional Profiles

# Post-Secondary Research in Atlantic Canada: Institutional Profiles

For additional copies of this Report contact:

Maritime Provinces Higher Education Commission / Commission de l'enseignement supérieur des Provinces maritimes 82 Westmorland Street / 82, rue Westmorland P.O. Box 6000 / c.p. 6000 Fredericton, NB E3B 5H1 Canada

(506) 453-2844

ISBN 0-919471-20-X

### **INDEX**

New Brunswick
Mount Allison University
St. Thomas University
Université de Moncton
University of New Brunswick
Nova Scotia
Acadia University 5
Atlantic School of Theology6
Dalhousie University
Mount Saint Vincent University
Nova Scotia Agricultural College
Nova Scotia College of Art and Design
St. Francis Xavier University
Saint Mary's University
Université Sainte-Anne
University College of Cape Breton
University of King's College
Prince Edward Island
University of Prince Edward Island

Newfoundland

### Mount Allison University Sackville, NB http://www.mta.ca

Contact: Vice-President Academic and Research Telephone: (506) 364-2622

### **Institutional Profile**

Mount Allison University has a reputation as one of Canada's leading undergraduate universities. Offerings include baccalaureate degree programs in the liberal arts and sciences, commerce, fine arts, and music, and a Masters degree program focussed on Biology, Biochemistry, and Chemistry.

The University's small size and residential nature provides an excellent learning environment for students. A program of summer research fellowships provides highly motivated undergraduates with an exceptional opportunity to gain research experience. A comparatively high proportion of graduates go on to post-doctoral and professional programs at leading research universities in Canada and elsewhere.

Less well-known is the University's small but excellent research base. The University has produced a pattern of success in the receipt of external research grants and has also made a significant commitment to renewing and revitalizing its basic and specialized infrastructure and information technology.

### **Research Themes**

Because of its small size, Mount Allison University focusses its teaching and research efforts. Six Centres and Institutes are supported reflecting important strengths in the Science, Social Sciences and the Humanities. These are:

<u>The Centre for Learning Technologies</u>, on a fee for service basis, helps organizations develop training programs that reflect current research and practice in the fields of technology-mediated

learning, knowledge management and performance.

<u>Rural and Small Towns Program</u>, on a fee-forservice basis, conducts independent applied and policy-related research focussed on the social, environmental, and economic issues confronting small communities in Canada.

<u>The Digital Microscope Facility</u>, on a fee-forservice basis, provides state of the art microscopy services using a scanning electron microscope. High magnification publication quality photo images are a primary product.

The Centre for Canadian Studies supports the University's teaching and outreach programs relating to the study of Canada in the world. Currently the Centre supports a variety of publishing programs and academic conferences.

<u>The Coastal Wetlands Institute</u> will focus on both the biophysical process and the human ecology of an important ecological habitat using a new greenhouse and lab facility funded through the Canada Foundation for Innovation.

The Meighen Centre for Learning Assistance and Research provides support to university students with learning disabilities to enable them to achieve their academic and social potential. The Centre also conducts research, produces resource materials, and provides advocacy leadership pertaining to learning disabled adolescents and adults.

### St. Thomas University Fredericton, NB http://www.stthomasu.ca

Contact: Assistant Vice-President (Academic)

Telephone: (506) 452-0417

### Institutional Profile

St. Thomas is a small, Catholic, and exclusively undergraduate university. Its main academic focus is the Bachelor of Arts programme. St. Thomas also offers a Bachelor of Social Work, a Bachelor of Education and, in cooperation with the New Brunswick Community College, applied arts degrees in journalism, gerontology, and criminal justice.

In the academic year 1999-2000, approximately 2250 students enrolled full-time at St. Thomas and another 300 enrolled as part-time students. St. Thomas has no graduate students.

### **Research Themes**

St. Thomas is host to two research centres that bring together faculty from a wide variety of disciplines.

The first of these is the Atlantic Human Rights Centre. The AHRC offers PhD completion fellowships that enable it to host two senior doctoral candidates each year as they finish their dissertations. It hosts a series of renowned external speakers on human rights issues and publishes annually the texts of their presentations. It also provides support to faculty research on

human rights issues and to the undergraduate major in human rights, the first of its kind in Canada.

St. Thomas's second interdisciplinary research unit is the *Centre for Research on Youth at Risk*. This centre brings together faculty from Social Work, Criminology, Psychology, Education, Sociology, and Native Studies. In addition, faculty members from universities in all parts of the country hold positions as research fellows. The CRYAR also partners with a wide range of community organizations. Current CRYAR projects include research on high-school dropout rates, adolescent eating disorders, street youth, youth violence, youth illiteracy, substance abuse, youth and sexually-transmitted diseases.

Among regular departments, St. Thomas has shown produced exceptional research in recent years in *Gerontology* (which houses an international longitudinal study of frail seniors and has a world-class reputation in the field of narrative gerontology), *History* (with particular emphasis on German, Acadian, Russian, and Church history), and *Criminology* (young offenders, corporate crime).

### Université de Moncton Moncton, New Brunswick http://www.umoncton.ca

Contact: Assistant Vice-President (Research)

Telephone: (506) 858-4310

### **Institutional Profile**

The Université de Moncton is the largest wholly French-language Canadian university outside Quebec. Its three campuses (Edmundston, Moncton, and Shippagan) serve a francophone student population from all parts of the Canadian and international francophonie, with New Brunswick Acadians making up the main component. For 1999-2000, enrolments on the three campuses were:

Undergraduate students, full-time: 4,047 Undergraduate students, part-time: 1,094 Graduate students, full-time: 350 Graduate students, part-time: 155

### **Research Themes**

The Université de Moncton offers a varied range of teaching (150 at undergraduate level and 35 at graduate levels) and research programs covering the arts and humanities, as well as science and engineering.

Research in the arts and in the humanites and social sciences is relatively varied, owing to the institution's special mission. Major research thrusts include minority-language education, French and Acadian studies, environmental studies, and regional development.

In science and engineering, the major research thrusts take in environmental science, food science and biotechnology, advanced materials and instrumentation, information and communication technologies, digital approaches and simulations, and community health.

Research activity at the Université de Moncton is funded by different sources, including the Social Sciences and Humanities Research Council, the Natural Sciences and Engineering Research Council, the New Brunswick Medical Research Fund, public- and private-sector firms, etc. In addition, the Université de Moncton has obtained substantial funding from the Canada Foundation for Innovation in order to renew its research infrastructures.

At the institutional level, the Université de Moncton offers several research incentive and support measures, including a release time program that allows for reduction of the teaching load of professors actively involved in research, as well as services relating to financial aid, assistance in preparing grant applications, and technology transfer.

# University of New Brunswick (Fredericton and Saint John Campuses) Fredericton, New Brunswick http://www.unb.ca

Contact: Office of Research and International Cooperation Telephone: (506) 453-5189

### Institutional Profile

Founded in 1785, the University of New Brunswick is one of Canada's oldest universities. UNB offers 70 undergraduate and 60 post-graduate degree programs on campuses in Fredericton and Saint John. Courses and programs are available in arts, business administration, computer science, education, engineering, forestry and environmental management, kinesiology, law, nursing, and science.

### **Research Themes**

With a long and distinguished history of research and scholarship, particularly in the sciences, applied sciences and humanities, UNB is a premier institution for research and graduate studies in Atlantic Canada. The depth and variety of its scholarly publications, its large number of research centres and industrial research chairs, the sustained levels of funding its researchers attract, its close and ongoing relationships with a wide variety of communities beyond its borders, and the quality of its research students indicate the breadth of UNB's research contributions. A partial list of research expertise follows.

Advanced Engineering Research: UNB houses the most comprehensive and advanced engineering research facilities in Atlantic Canada. It has an extensive network of laboratories and industrial research chairs in pulp and paper engineering, nuclear engineering, construction, advanced instrumentation, geomatics and ocean mapping and technology management. It is developing strengths in such new areas as computer engineering, advanced materials, gas technology, infrastructure management and environmental engineering.

<u>Atlantic Studies</u>: Home to both Acadiensis and The Fiddlehead, UNB is a leader in the study of the culture and language of Atlantic Canada and has several research initiatives related to the region's social and economic future.

<u>Basic Sciences</u>: UNB has had an especially strong research program in the sciences for several decades. It is committed to maintaining areas of excellence, such as its world-class Centre for Magnetic Imaging Research, while supporting promising research directions in such areas as materials science, fibre optics and pharmaceutical chemistry.

<u>Biotechnology</u>: New Brunswick is recognized as a leader in alternate farm fishery, seed potato exports and forest management. The University, with established strengths in aquaculture, fisheries and forest biology, is adding molecular genetic expertise to link with genetic improvement programs in fish species, potatoes and forestry and is making a major investment in bioinformatics.

Environmental and Resource Management. The Sir James Dunn Wildlife Research Centre, together with the Atlantic Cooperative Wildlife Ecology Research Network and the Coastal Studies and Aquaculture Centre, provide national research leadership in wildlife ecology, management and conservation. Research crucial to the regional economy in sustainable forest management and value-added wood products has accelerated. Other strengths include groundwater, watershed, and coastal zone research and linking technical expertise with industry's research needs - the aquaculture sector being a crucial current example. Emphasis is on interdisciplinary approaches and integrating policy research with technical depth in environmental science, engineering and information science.

<u>Health Sciences</u>: Regional behavioural research of the National Cancer Institute, biomedical engineering expertise and a proposed partnership in the area of critical care decision support are among UNB's strengths.

Information Technology: A proven track record in computer science and related disciplines plus a new Information Technology Centre, make UNB a logical centre of excellence for graduate training and research. Current expertise encompasses policy issues, distributed computing information systems, algorithms, intelligent systems and multimedia studies and internationally recognized strength in human-computer interaction, algorithms, GIS technology, intelligent systems and electronic commerce.

<u>Social Policy</u>: The Muriel McQueen Fergusson Centre for Family Violence Research is a centrepiece for community based research initiatives while the new Canadian Research Institute for Social Policy will provide national leadership in quantitative social policy.

Acadia University Wolfville, Nova Scotia

### http:///www.acadiau.ca

Contact: Administrator, Research and Graduate Studies Telephone: (902) 585-1662

### **Institutional Profile**

Acadia University is a highly regarded, primarily undergraduate university (270 faculty, 3700 students) that has been consistently rated as the highest quality and best overall university in its category in Canada.

Following a tradition of academic excellence for over a century, Acadia University was a laureate of the 1999 Computerworld Smithsonian Award in Washington, D.C. for innovation in education. The Acadia Advantage, a revolutionary program launched in 1996 that has incorporated computer and Internet technology into every discipline, became part of the Smithsonian's Permanent Research Collection on Information Technology.

Acadia students and faculty use identical notebook computers and a sophisticated array of software to plug into more than 5,000 ports in the university's classrooms and studio labs, libraries, residences, and student lounges. The 'anywhere, anytime' access to the Internet has been accompanied by pedagogical shifts towards an 'active-based' learning environment, in which students tackle real-world problems using CD-ROM simulations and other new virtual learning environments. The ground-breaking pedagogical innovation undertaken by Acadia faculty--with the support of students and staff working in the Acadia Institute for Teaching and Technology--reflects the ongoing tradition of research excellence and collaboration at Acadia.

Acadia's size provides the basis for a high degree of personal interaction and involvement between faculty and students in the research enterprise. Undergraduate Honours and the selected Masters programs at Acadia have been consistently cited for their excellence.

### **Research Themes**

The major development of a state-of-the-art information technology infrastructure at Acadia has enriched the capabilities of this system. In addition to multi-million dollar capital equipment and network upgrades, Acadia's researchers have benefited from extensive training in information and communication technology applications.

As a scholarly community, Acadia faculty, students and staff are continuously engaged in research and development. The university prides itself on maintaining the level of quality and excellence of research typically found at larger institutions, on a scale and scope appropriate for a liberal arts undergraduate institution. Acadia supports the outstanding individual skills in its researchers in the Arts, Professional Studies, and the Sciences. Faculty are actively engaged in local, national and international research initiatives. At Acadia there is a strong, ongoing commitment to community development, at home and abroad. The university has identified four multi-disciplinary, pan-university research themes: the Environment; the Information Society, and Teaching/Learning Technologies; Health and Well-Being; Culture and Civilization.

Acadia continues its development of selected major research installations. For example, a Canadian Foundation for Innovation grant enabled the development of the Acadia Centre for Microstructural Analysis, with collaboration among faculty members in Biology, Physics, and Chemistry.

Thanks to a generous gift from the Irving family, construction is underway for the new Environmental Sciences Research Centre, Botanical Gardens and Campus Meeting Place. This world-class initiative will offer an incomparable research greenhouse, a facility for genetic analyses, and a communications infrastructure with the capacity to facilitate international conferences.

The University's location in the Annapolis Valley contributes to the strong ties between the university's research enterprise and the private sector. Contract research projects with public and private sector interests characterize an increasing proportion of research activities.

Acadia University continues to build on its well-respected academic traditions, a strong record of scholarly achievement, and a distinctive culture of innovation and partnership.

### Atlantic School of Theology Halifax, Nova Scotia http://astheology.ns.ca

Contact: Academic Dean Telephone: (902) 423-6939

### **Institutional Profile**

Atlantic School of Theology is an ecumenical university committed to excellence in graduate-level theological education and research, and in formation for Christian ministries, lay and ordained. AST graduates students with Master of Theological Studies and Master of Divinity degrees. Its Continuing Education Department offers a Certificate Program in Theological Studies on campus or by distance education.

### **Research Themes**

AST 2000 "In Over Our Heads: Reimagining Our Common Vocation": AST engaged in a year-long process of discernment for students and faculty; the central component was an inter-disciplinary seminar in which intensive contextualization provided material for reflection on both participants' personal vocations and the collective vocations of the School and the church in this place and time. The primary contextualization experience was a 4-day trip to Cape Breton to discover what spiritual wisdom people of the region bring to bear on their situation and in the process develop participants' skills in reading the context. Participants also made visits to a working artist and the Black Cultural Centre in Halifax. and a church in North Preston, one of the oldest African-Canadian communities in Canada. Along with selected literature, the reading of our context became the material of theological/ vocational reflection in the classroom and integration and application assignments.

Dr. Jody Clarke's primary research includes: phenomenological research into the experience of parents who suffer the death of a child including a child who took his or her own life; phenomenological/thematic research into the experience of people who suffer a trauma; phenomenological study of the experiences of people who work with those who suffer a trauma.

In the project entitled *Dances with Leviathan: the Bible between Narrative and Gnosis*, Dr. Susan Slater is working with questions of how we understand ourselves as knowing human subjects in relation to the stuff of our knowing.

These questions are given point for her by a conviction that we are living in times of pervasive change in which it is pressingly important that we find ways to open more channels between our knowing and our living.

Dr. Martin Rumscheidt's current research focuses on: the church in the former German Democratic Republic and Czechoslovakia and the manner in which the Protestant churches there responded to the challenges/constraints on them from the Communist regimes; the legacy of Dietrich Bonhoeffer, the German Christian and theologian whom Hitler executed for his participation in the opposition to National Socialism and in the conspiracy to kill Hitler.

Dr. Shelley Finson's current research involves the stories and analyses of the experiences of lesbians when they were in ministry during the debate in the United Church concerning the ordination/ commissioning of homosexuals. She has contributed a chapter titled "Seeing with New Eyes – Moments of Spiritual Awakening" to the book Consciousness Rising: Women's Stories of Connection and Transformation. Prof. Frederick Krieger is working on research into contemporary (Feminist, Liberationist, Womanist, Historical critical, and Black) interpretations of Christ.

Dr. David MacLachlan plans work on an article on Israel in the Book of Revelation and a book on conflict in the same.

Elizabeth McIsaac Bruce is working on a qualitative research study of the spiritual experiences, elements and influences that Christian social justice ministers deem to have raised their consciousness to engage in social justice issues.

Dr. Mary Schaefer is preparing the following four projects for publication: (1) twelfth -century Latin Mass commentaries; (2) the foundational myth of the Church of Santa Prassede, Rome (2<sup>nd</sup>-9<sup>th</sup> centuries); (3) Thomas Aquinas and his view of the ordination of women; and (4) a book on the d theology of the Eucharist with special reference to architecture and art.

### Dalhousie University Halifax, Nova Scotia http://www.dal.ca

Contact: Associate Vice-President Research & International Relations Telephone: (902) 494-6513

### **Institutional Profile**

Dalhousie University opened its doors in 1963. graduating its first class of three students in 1866. Today Dalhousie University contains 12 Faculties, 95 academic units and departments, and has a student population of over 13,500; of whom, 4,500 are graduate students, post doctoral fellows, or students registered in professional programs. The University offers Masters- and Doctoral-level graduate programs in most disciplines, providing a full spectrum of competitive research programs that extend from "arts" to the "applied" end of the spectrum. As a result, Dalhousie research and innovation has significant resonance with ongoing community activities. Collaboration occurs with private, as well as with government sectors, to ensure the transfer and application of knowledge, thereby supporting the growing role of innovation in economic competitiveness.

Together with its affiliated teaching hospitals—the Queen Elizabeth II Health Science Centre; the IWK Grace Health Centre for Children, Women and Families; and the Nova Scotia Hospital — Dalhousie University represent the largest, comprehensive, research-intensive academic institution in Atlantic Canada, receiving over \$50 million in external research investments in 1998/99. Dalhousie NSERC-funded faculty placed sixth in ISI citation impact in all science fields in 1996, and the success of its social science community in attracting SSHRC grants is comparable to the success rate at many of the larger Canadian academic institutions.

### **Research Themes**

The Senate of Dalhousie University has supported the development of strategic directions through the designation of institutional Areas of Special Emphasis, and has encouraged Department, Faculty, and University-wide strategic planning sessions that have been used to re-define research goals in collaboration with the public and private sectors that rely on the university to provide both an educated workforce, and advances in relevant knowledge and technology. The research plans that have evolved from these strategic planning processes have been important in reinforcing the cooperative, collaborative and inter-disciplinary approaches to research and education at Dalhousie. These processes have also engendered new partnerships among the

University, our affiliated teaching hospitals, and the public/private sectors in order to achieve innovative solutions that address common issues and concerns.

Institutional Research Priorities -- Two broad areas, Ocean Studies and Health Studies, have been identified at this stage as institutional research priority Areas of Special Emphasis. Ocean Studies encompasses ocean-related disciplines of science, social science, law and policy, as well as management and international development activities. It involves more than 100 researchers in six faculties, and a variety of academic disciplines including Biology, Earth Sciences, Engineering, History, Law, Medicine, Oceanography, Political Science, Physics, Resource and Environmental Studies, and Sociology/Social Anthropology. Health Studies represents the largest and most diverse of the research strengths at Dalhousie, and accounts for over 60% of all external institutional research support. It embraces the three Health Science Faculties of Medicine. Dentistry and Health Professions, as well as elements of the Faculties of Arts and Social Sciences, Engineering, Law, and Science. Health research at Dalhousie embraces the disciplines of basic, clinical, applied, outcomes, health services, sociocultural and population health research.

Existing and Developing Research Strengths --Several focussed areas of interdisciplinary research strength and priority either already exist, or have begun to emerge at Dalhousie. These include — Arts and Culture — Bioethics and Health Law — Cancer — Cardiovascular Heath Genomics and Evolutionary Biology Globalization and International Studies Industrial Ecology — Information Technology, Global Computer Networking, and Electronic Commerce — Health Promotion and Health Outcomes — Management Informatics Material Science and Biomedical Engineering — Marine and Atmospheric Prediction — Modelling and Prediction of Building Performance — Neuroscience & Mental Health — Petroleum Studies — Population Health — Public Policy and Social Analysis — Resource & Conservation Genetics and Biotechnology — Urban and Rural Planning — Women's Health.

### Mount Saint Vincent University Halifax, Nova Scotia http://www.msvu.ca

Contact: Director of Research & International Liaison Officer Telephone: (902) 457-6296

### **Institutional Profile**

Mount Saint Vincent University, founded in 1873. is a public post-secondary institution dedicated to the education of women. Its student body of over 4000 students (80% plus are women) benefit from small classes and individual attention. The Mount focuses primarily on undergraduate education offering a strong liberal arts and science core, along with select professional programs such as Tourism and Hospitality Management, Public Relations, Education, Information Technology, Business Administration, Child & Youth Study, Applied Human Nutrition and Family Studies & Gerontology. Co-operative education, which enables students to gain employment experience in their field, is a key feature of several professional programs and will soon be introduced as an option for arts and sciences students. Diploma and Certificate programs are also available at the undergraduate The Mount offers several graduate level. programs including: Education, Child & Youth Study, Family Studies & Gerontology, Nutrition and Women's Studies. Multi-media distance education technology is used to reach many students unable to access the campus on a dayto-day basis.

Planning & Approval - Research and research training are key elements in the overall process of strategic and operational planning at the Mount. Our strategic planning process involved broad consultation. This strategic plan, Blueprint 2000, is approved by both Senate and the Board of Governors. Our vision is to become the world leader in innovative education for women, and research and research training have a prominent place in helping us to strive for that vision. Of special note is the interdependency of our academic goals with those relating to research. The university recognizes the crucial synergy between the research and teaching functions of the university.

### **Research Themes**

The Mount promotes research on women and related issues of gender and equity, although research activities are not restricted to these areas.

Women, Gender, Equity Issues includes: gender history and peace studies (feminist pacifism); socio-cultural barriers to health care; women and politics; women and the aeronautical space program; masculinity and schooling; gender and telecommunications; gay men in teaching; writing and women's lives; women and work; gender and religion; feminist criticism and theory.

<u>Child and Youth Study</u> focuses on funding and development of community-based services and on critical analysis of social policy. Two waves of the Atlantic Day Care Study have investigated the location, funding, and provincial legislation of day care in the four Atlantic provinces.

<u>Gerontology/Aging</u> focuses on women and caregiving, both paid and unpaid. A critical mass of researchers in the department of Family Studies and Gerontology and at the Nova Scotia Centre on Aging study women, caregiving, and aging.

<u>Political and Canadian Studies</u> has human rights as its central theme, which includes language, social and economic rights.

International projects emphasize the enhancement of the quality of life for women and girls. Projects in women's studies reflect a focus on capacity building of programs within the curricula of academic institutions in developing countries. CIDA-funded projects in women's studies include collaborations with: Atlantic Canada, Caribbean, Guyana; with the Mount, Saint Mary's and the Philippines. Business projects include training for entrepreneurs in Hungary and Slovakia.

<u>Women & Science</u> is supported by faculty conducting research in Biology, Chemistry and Psychology in the Catherine Wallace Centre for Women in Science.

<u>Literacy & Adult Learning</u> are two key research areas of the Education department.

### Nova Scotia Agricultural College Truro, Nova Scotia http://www.nsac.ns.ca

Contact: Office of Research and Graduate Studies Telephone: (902) 893-6502

### **Institutional Profile**

The Nova Scotia Agricultural College, founded in 1905, is located on a 165-hectare property overlooking the Salmon River at Bible Hill, one kilometre northeast of Truro, Nova Scotia, This university-college takes a leading role in providing education, research and public service in the agricultural and food industries and related disciplines. With a mandate for agricultural education in the Atlantic provinces, it addresses the needs for education and research across a broad mix of agriculture and food industries in this region and beyond. Technical, undergraduate and graduate programs cover science, technology, business and engineering and combine academic and applied knowledge. Bachelor and Masters of Science degrees are awarded in association with Dalhousie University.

The NSAC has well-equipped, modern facilities, including a new state-of-the-art Aquaculture centre which supports a unique degree program and research activity for both salt and fresh water species. Its 20 buildings are situated among well landscaped gardens and open areas with interesting botanical collections. The farm lands, crop research fields and the interval along the Salmon River all complement the learning environment.

Enrolment has varied between 800 and 1000 students in recent years, 550 of which are undergraduate and 50 of which are graduate students.

### **Research Strengths and Themes**

Despite its relatively small size and recent entry into research and graduate studies, the NSAC has come to be recognized as an important centre for research. By the mid-1990s, using the ratio of research expenditures to operating budget as a measure of intensity, the NSAC had become the most research intensive among Atlantic Canada universities. Total research funding is in the order of three million dollars per

vear.

One of the arrangements by which the NSAC has gained strength in research is through partnerships with industry and government in a unique Research Chairs program through which the salary of researchers are jointly supported by private sector organizations and the Nova Scotia Department of Agriculture and Marketing. This has resulted in several positions specializing in particular areas such as blueberries, carrots, turfgrass, potatoes and cropping systems.

These researchers complement the broad research strengths of the College in soils, crops, animal science, aquaculture, economics, engineering and a host of related fields including biotechnology, chemistry, environmental sciences and resource management. Several of theses fields are supported by infrastructure awards through the Canada Foundation for Innovation.

In recognition of the diverse nature of the agriculture and food industry in the Atlantic region, the strategy of the NSAC is to provide a comprehensive program of applied research to serve the needs of this sector. This research is supported through a variety of sources including the national granting councils, industry and government. Some of this support is channeled through a series of Centres, Institutes and other specialized research group and facilities such as the Atlantic Pasture Research Center, the Atlantic Poultry Research Institute, the Nova Scotia Wild Blueberry Institute, the Rural Research Centre and the Atlantic Center for Agribusiness.

The NSAC is also a partner in AgriTECH Park, a research and development incubation facility, located near the campus. This facility is intended to facilitate the commercial development of research performed at the College as well as creating linkages between external research initiatives and College researchers.

### Nova Scotia College of Art and Design Halifax, Nova Scotia http://www.nscad.ns.ca

Contact: Vice-President (Academic) Telephone: (902) 494-8125

### **Institutional Profile**

The Nova Scotia College of Art and Design is dedicated to providing the best possible conditions for the study, practice, and teaching of art, craft, design, and art education.

The College offers the following undergraduate degrees: Bachelor of Design, Bachelor of Fine Arts, and Bachelor of Visual Art in Art History. Graduate degrees include the Masters of Arts and the Master of Fine Arts degrees.

The programs of the College are distinguished by attention to diverse academic and pragmatic concerns and, in their individual research programs, faculty members express that diversity

For the 1999-2000 academic year, the Nova Scotia College of Art and Design has approximately 700 full-time undergraduate students and 19 full-time graduate students. The College also has registered 140 part-time undergraduates and 6 part-time graduate students.

### **Research Themes**

Given the approach to research and education at the Nova Scotia College of Art and Design, many studio faculty conduct research, that is, explore, test, and circulate knowledge using a wide range of materials most typically associated with visual arts and design practices.

In addition, other faculty at the College are involved in significant and innovative research programs that include:

 Influence of Urbanism and Sustainable Development in Planning Policy and Practice in Canada

- Strategies of Reducing Greenhouse Gas Emissions at the Debert Air Industial Park (Collaborative project with Dalhousie University)
- Field Research to Examine Japanese strategies for Achieving Sustainable Built Form
- Ecological Role of Wetland Environments in Urban Environments
- Development of a Geographic Information System for Identifying Habitat Potential for Harlequin Duck Breeding in Labrador (in cooperation with Environment Canada)
- Institutional Impediments to Protecting Small Urban Wetlands
- Tourism: A Study in Identity and Social Change Art Education as Agent for Social Understanding and Change
- Relevance of the Visual arts to Psychological Research on Perception and Brain Theory
- Conceptual and Performance Art and Feminism
- · Costume in Performance
- History of Feminist Performance in Canada and the United States (book project)
- Canadian Mural Painting 1860's-1930's (book project)
- Regional Receptions of the Group of Seven
- From the Missile Gap to the Culture Gap: Modernist Art, Pragmatic Liberalism and the Cold War (book project)
- Culturing the Masses: State Patronage of the Arts and the Cold War in the United States
- Art McKav: A Critical Retrospective
- From Colonial Space to the Global Village: US Foreign Policy and the Construction of Canadian Identity at Expo 1967

# St. Francis Xavier University Antigonish, Nova Scotia http://www.stfx.ca

Contact: Academic Vice-President Telephone: (902) 867-2443

### **Institutional Profile**

Founded in 1853. St. Francis Xavier University (StFX) is a primarily undergraduate institution with a strong commitment to teaching, research and community. Through its faculties of arts and science, StFX offers full-time students academic, pre-professional and professional programmes that stress high academic standards, contemporary relevance and an intimate learning environment. While it strives for excellence as an undergraduate institution, StFX does offer a limited number of graduate programmes. The University values the development of the "whole person" and seeks to nourish the intellectual, cultural, spiritual, social and recreational lives of its students. The University also has a longestablished tradition of community service, and this mission is reflected in the programmes of the Extension Department and the University's Coady International Institute, the latter a global leader in community-based development. StFX has 3600 full-time students and 500 part-time students.

The University is dedicated to teaching innovation that is responsive to diverse learning styles and to expanded flexibility for student access. For example, the Distance Nursing Programme has developed courses that can be accessed online or by CD-ROM. Service Learning has also become an important component in many StFX courses. Students pursue community-based course work that heightens their community awareness, leadership skills and sense of social responsibility.

### **Research Themes**

In addition to its teaching mandate, StFX is committed to experimental research, reflective inquiry and creative work by its faculty. The University has an impressive success record for external research funding. Recent SSHRC-supported initiatives include an archaeological survey of Tafila-Busayra, Jordan and a study of British Idealism. The university has had funding from NSERC for a wide variety of research

projects in biology, chemistry, engineering, geology, human nutrition, mathematics, computing sciences, physics and psychology. Several research projects at StFX, including those initiated by the Biomechanics Laboratory. the Food Research Laboratory and the St. Georges Bay Ecosystem Project, have gained significant profile during the past few years. This latter project studies the marine and human ecology of St. Georges Bay. It is based on a partnership between local marine harvester organizations in the Gulf of St. Lawrence, the regional branch of the Department of Fisheries and Oceans, and Interdisciplinary Studies in Aquatic Resources (ISAR). ISAR is a unique StFX programme that focuses on contemporary social and economic issues in Atlantic Canada's rural and coastal communities, especially on the creative use of its aquatic resources. StFX has established several centres that reflect the diverse research experiences of its faculty. The Centre for Community Based Management (CCBM), drawing on the expertise of the StFX Extension Department and the Coady International Institute, assists communities with the implementation of current models for community-based management with a focus on natural resources. Recently, a partnership has been formed between the ISAR programme and CCBM. Its primary objective is to mobilize and enhance the critical skill sets required for non-Native and First Nations organizations to assume more direct roles in managing their marine ecosystems. The Centre for Regional Studies (CRS) promotes research on the cultural, social, political, historical and educational dimensions of work in Atlantic Canada. The Centre also supports a continuing programme of seminars and public presentations, reflecting topical issues of community development. The Centre for Educational Research in Diverse Cultures (CERDC) promotes collaborative research in multicultural education, most notably African-Canadian and First Nations education.

### Saint Mary's University Halifax, Nova Scotia www.stmarys.ca

Contact: Vice President Academic and Research - (902) 420 5406 Director of Graduate Studies and Research - (902) 496 8169

### **Institutional Profile**

Saint Mary's University is a comprehensive, predominantly undergraduate university and is now the second-largest university in Nova Scotia. The University offers an undergraduate liberal education in arts and sciences; professional programs in commerce, criminology, education, engineering, and international development; and select graduate programs in areas of strength. A Ph.D. in Business Administration will start in June 2000. In 1998-99, there were 4674 full-time and 1369 part time undergraduate students and 226 full-time and 206 part-time graduate students enrolled.

### **Research Themes**

The Gorsebrook Research Institute for Atlantic Canada Studies is an interdisciplinary research centre concerned with a variety of social, economic and cultural issues specific to Atlantic Canada. The Institute encourages and facilitates social, economic and policy-related research pertaining to development in Atlantic Canada; acts as a resource base and data centre; and encourages University to Community outreach through collaborative research projects.

The Atlantic Centre of Research, Access and Support for Students with Disabilities promotes and carries out research related to the support of students with disabilities. Accessibility for persons with disabilities has long been a cornerstone of the philosophy of Saint Mary's University. The Atlantic Centre provides services to students and to clients throughout Nova Scotia.

<u>The Regional Geochemical Centre</u> provides chemical analyses of geological materials for a consortium of Maritime Universities as well as for external clients and thus underpins much of the geological research carried out in the region.

Atlantic Canada Centre for Environmental Science carries out research on environmental science in Atlantic Region and provides outreach to the international community in methods and strategies of environmental research.

Current and emerging research strengths
In addition to the active research carried out in the research centres and institutes, the current and emerging research areas of the University include:
A high-performance scientific computing facility has been established to support the research needs in astronomy, economic modelling and mathematics.

This also provides students access to state of the art computing facilities.

The University has expertise in the fast developing area of electronic commerce and has an interdisciplinary team working on technical and organisational problems and opportunities in this field.

The International Development Studies program provides students with the skills necessary to take a multidisciplinary approach to development issues facing Third World countries. Research is carried out on development models and strategies and the impact of development agencies and international financial institutions.

Economics and management of the fisheries and the coastal zone is an area in which the university has a strong research record, including the modeling of fish stocks.

The University plans to establish a spatial analysis research group based on modern GIS and GPS technologies. This is seen as an opportunity to partner with both the public and private sector, for example in archeological research along pipeline corridors, assessing the risk of catastrophic flooding around the Bay of Fundy, and developing a new Atlantic Provinces Atlas.

The recently established pollutant monitoring and ecosystem remediation facility will have the capacity to monitor chemical pollutants and carry out research on ecosystem remediation.

A wide range of sociological research applicable to public policy is carried out, in areas ranging from evaluation of the Community Action Program for Children to perceptions of neighbourhood safety and policing.

Taxonomy is a strength of the University which has one of the highest concentrations of taxonomists in Canada. A new taxonomy laboratory will strengthen research in ecological diversity and harmful parasites in Nova Scotia.

Crystal engineering is one of the research specialties within the Department of Chemistry. Molecules of specific shape and size are developed for industrial or medical applications.

### Université Sainte-Anne Church Point, Nova Scotia http://www.ustanne.ednet.ns.ca

Contact: Vice-President (Academic and Research) Telephone: (902) 769-2114, xtn. 307

### **Institutional Profile**

Université Sainte-Anne is a small, French-language, undergraduate university with degree programs in the humanities, education, business and science, as well as a year-round French immersion program. Sainte-Anne is located in rural south-western Nova Scotia on the shores of St. Mary's Bay. Its mandate is to provide a quality post-secondary education in French to the Acadian population of Nova Scotia and to others interested in studying in French.

### **Research Themes**

Université Sainte-Anne has two centres with a mandate to conduct research, the Centre Acadien and the Jodrey Small Business Centre. The Centre Acadien conducts research into Acadian history and genealogy. The Jodrey Centre carries out applied research into entrepreneurship and business opportunities for small businesses.

In addition to the two centres, faculty at Université Sainte-Anne conduct research primarily in the areas of education, Acadian studies (history, ethnology, literature and culture), French studies, English studies, sociology and public administration. The Université also supports a multidisciplinary academic journal devoted to Acadian studies: *Port Acadie*.

Among the research currently being conducted at Université Sainte-Anne are the following subjects:

- ? The French-language ability of Nova Scotia Acadian schoolchildren
- ? Children's concepts of science
- ? Gender typology in the Canadian legal system
- ? Acadian song
- ? Canadian and Belgian immigration
- ? The effect of new communications technology on a French-language minority community.

### University College of Cape Breton Sydney, Nova Scotia http://www.uccb.ns.ca

Contact: Dean, Office of Research and Academic Institutes Telephone: (902) 563-1271

### **Institutional Profile**

UCCB is Canada's first university college, an institution with an innovative blend of degree and diploma and certificate programs that provide unique opportunities for students to combine university liberal arts and science traditions with technological and trades programs. UCCB takes pride in its special partnership with the people, cultures and communities of Cape Breton Island and also recognizes the importance of its cultural and educational linkages with the global community.

### **Research Themes**

Examples of research undertaken by on-campus Institutes/Centres as well as several individual members of faculty:

The Beaton Institute is a research centre and archives mandated to collect and conserve the social, economic, political, and cultural history of Cape Breton Island.

The Centre for International Studies represents UCCB in its dealings with government departments and agencies and other organizations with respect to international activities.

The Centre for Community Economic Development helps local groups make basic decisions and mobilizes necessary resources to solve local problems or needs, especially in business development.

The Chair, Management of Technological Change, focuses on the problem of developing models for more comprehensive processes in the management of technological change.

Children's Rights: To monitor the implementation of the United Nations Convention on the rights of the child.

Marketing Research: To provide career experience and commercial training for UCCB students and to serve clients from various sectors of the local business community.

Small & Medium-sized Enterprises: To provide faculty and students with a base from which research into the small & medium-sized enterprise sector can be undertaken.

Carboniferous Palaeobotany: Working and experimenting with new sophisticated technology, and new investigative concepts notably introducing concepts of cuticular chemotaxonomy, and simulating mathematical taxonomy (fractal taxonomy).

Integrating Knowledges: To develop science-based courses for the Aboriginal community that will form part of the "Integrating Knowledges" program.

Communication: Individual and social factors influencing the willingness to communicate.

### University of King's College Halifax, Nova Scotia http://www.ukings.ns.ca

Contact: Vice-President Telephone: (902) 422-1271

### **Institutional Profile**

King's was founded at Windsor, Nova Scotia, in 1789 making it the oldest English-speaking university in the British Commonwealth outside the British Isles. Since 1923 it has been located on a single campus with Dalhousie University. It is a small (850 students), liberal arts college with degrees in Arts and Science (offered jointly through Dalhousie) and Journalism. It is unique in the region in that all of its programmes are inter-disciplinary.

### **Research Themes**

Arts & Social Sciences: King's professors have focused upon a fairly wide variety of projects including Criminology (a comparative study of Japan and Canada), Dante Studies, Victorian Women Novelists (two funded publishing projects), Holocaust studies, Neo platonic studies (a joint international project with German funding), Medieval and Renaissance literature, early modern studies, German Idealism, ancient philosophy and music history. King's professors edit: *The Dalhousie Review, Dionysius* and the online journal *Animus*.

<u>Interdisciplinary Studies</u>: King's participates in advising and reviewing interdisciplinary and "coretext" programmes across North America and contributes to the growing literature on such programmes, including methodology.

History of Science & Technology: A new programme has just been launched and already there are definable research interests in Ancient Near Eastern and Greek Science, the Scientific Revolution, Darwinian studies and the philosophy of technology.

<u>Journalism</u>: The School is involved with the encouragement and evaluation of reflection and research on the media and has been a leader in developing methodology for on-line news in Eastern Canada.

<u>The King's Institute</u> considers ways to further the research interests of the College–especially in relation to the unique problems of interdisciplinary work. Through the Institute, King's has sponsored numerous conferences and publications as well as the George Grant Lectures.

### University of Prince Edward Island Charlottetown, Prince Edward Island http://www.upei.ca

Contact: Associate Dean, Graduate Studies and Research, AVC Telephone: (902) 566-0640

### **Institutional Profile**

The University of Prince Edward Island is a community of scholars whose primary tasks are to teach and to learn, to engage in scholarship and research, and to offer service for the benefit of our Island and beyond (extracted from Mission Statement). It was formed in 1969 through the merger of two academic institutions with long histories of academic excellence: St. Dunstan's University and Prince of Wales College.

The University of PEI has approximately 2400 full time and 450 part time undergraduate students spread across the Faculties of Arts, Science, Education, Business, Veterinary Medicine and Nursing. In addition, there are approximately 50 graduate students in the Faculty of Veterinary Medicine (30 MSc, 20 PhD), 47 students in an MEd program in the Faculty of Education and a number of MSc students in the very recently established (1999) MSc program in the Faculty of Science.

### **Research Themes**

Research is a rapidly growing component of the University of PEI. Across the University, "health" and "island studies" can be identified as important research themes. Health research is viewed broadly to include, animal health, human health and ecosystem health. The PEI Institute for Health Research has recently been established at the University. Island studies research is a multiand inter-disciplinary effort that involves comparative research on small island jurisdictions and their economies, geographies, environments, cultures, politics, public policies and literatures.

While based primarily in the Faculty of Arts, "island studies" research involves collaboration with many other Faculties. The Faculty of Arts complements this thrust with a wide range of research activities in the social sciences and humanities. Research institutes within the Faculty of Arts include ones on L.M. Montgomery studies, music cognition, infant studies, and health and aging.

The Faculty of Science has strong research programs in three main areas, viz. environmental science, materials science and human health. Environmental science research encompasses

studies from the molecular to the population levels on ecosystem integrity, especially as affected by land use activity and other environmental stressors.. Research in materials science is carried out by chemists and physicists within the CFI funded Centre for Structure Determination and involves several inter-related supramolecular chemistry, biomembranes, surface defects in materials and the synthesis and characterization of new nanocomposite materials. Research on human health is conducted along several foci. Foremost among these are "disease prevention," particularly the role of diet, and "pharmaceutical/ nutraceutical R & D," especially the role of antioxidants in ameliorating stoke outcome. Research within the Faculty that does not fall within the three main theme areas is of a high caliber, as exemplified by the mathematics department, in which a variety of externally funded programs in basic mathematics is conducted.

In the Faculty of Veterinary Medicine (Atlantic Veterinary College - AVC), the three main research thrusts are fish health, population health (particularly as it relates to livestock production) and basic biomedical research relative to both animal and human health. Fish health research facilities include the CFI funded Centre for Marine and Aquatic Research which complements the extensive in-house facilities in which virtually any type of aquatic environment can be created. In addition, field research is carried out in conjunction with commercial fin-fish and shellfish producers. Population health research primarily involves epidemiological studies and builds on the close relationships that exist between the AVC and the dairy, swine and equine industries. Biomedical research focusses on the mechanisms of human and animal diseases with a strong program investigating genetic control of those diseases and their response to therapy.

The School of Nursing has a strong research interests in health promotion and conceptual models of nursing. Both the Faculty of Education, with research programs in education methodology and international education, and the School of Business, with programs in marketing, finance and management complement the main research themes of the University.

# Memorial University St. John's, Newfoundland http://www.mun.ca

Contact: Vice-President Research & International Relations Telephone: (709) 737-2530

### **Institutional Profile**

Built as a monument to honour those Newfoundlanders who died in World War I. Memorial officially opened its doors in 1925 as Memorial University College and was elevated to full university status in 1949. In 1961, the university moved to its current location in the centre of St. John's, a site which has expanded over the years to include 256 acres of land, dozens of buildings and a variety of specialized facilities. Memorial has a second site in St. John's (the Marine Institute), campuses in Corner Brook (on the island's west coast) and Harlow, England and a site on the French island of St. Pierre. Memorial offers a wide assortment of academic programs through its six faculties (Arts, Science, Education, Medicine, Engineering and Applied Science, and Business Administration) and its seven schools (Music, Physical Education and Athletics, Nursing, Pharmacy, Social Work, Graduate Studies, and Continuing Education).

### **Research Themes**

Memorial University of Newfoundland is one of the most important research facilities in the Atlantic region, and is the largest university east of Montreal. Memorial is involved in ongoing research into a broad spectrum of academic disciplines with strengths in engineering, medicine, education (including distance education) and social sciences. In addition, Memorial has developed world class expertise in almost all aspects of ocean and fisheries related research. In 1998-99, Memorial researchers conducted their activities with more than \$35 million in external research support.

The University hosts a number of special research chairs dedicated to applied seismology, child protection, fisheries conservation, mineral deposits research, ocean environmental risk engineering, seabird ecology, telecommunications engineering and information technology, women in science and engineering, pediatric genetics and youth-focussed technological entrepreneurship.

Through Memorial's Seabright Corporation, university research is transferred to industry and to the marketplace through licensing and transfer agreements, contract research services and collaborative research and development projects.

Ocean Sciences: Memorial has taken full advantage of this province's prime location to develop major centres of excellence in ocean sciences. They include the Ocean Sciences Centre (featuring a new aquaculture facility), the Centre for Cold Ocean Resources Engineering, the Centre for Marine Simulation, and the Ocean Engineering Research Centre. These units do everything from testing off-shore equipment to improving aquaculture methods to developing methods for detecting icebergs.

<u>Distance</u> <u>Education</u> <u>and</u> <u>Medicine</u>: The Telemedicine Centre, the Division of Educational Technology and the Telemedicine and Educational Technology Resource Agency (TETRA) conduct research on the use of interactive communications technologies to supplement health and education in rural and remote areas. This research has been applied provincially and internationally.

Social Sciences: The Institute for Economic and Social Research (ISER) specializes in empirically based social scientific research in Newfoundland, Atlantic Canada, the eastern Arctic and the North American rim. ISER has attained a reputation as a leading social science research institute and is currently engaged in a large cross-disciplinary research project on the sustainability of communities in cold ocean coastal environments.

Archaeology: Since 1978, the archaeology unit has initiated exciting projects that have unearthed significant sites – some as recent a 17th-century planters establishment on St. John's oldest street and those as old as the 7,500-year-old L'Anse Amour burial mound in southern Labrador -- the earliest known burial mound in North America.

Earth Sciences: The Centre for Earth Resources Research (CERR) promotes research in mineral and petroleum resources, environmental geoscience, exploration technology and generic research. CERR has done extensive seismic survey work for oil development companies and developed new methods of iron ore characterization.

Existing and Developing Research Strengths