

Acadia University

Overview

Acadia University is one of Canada's most highly regarded primarily undergraduate institutions, where creativity and innovation is nurtured, and interdisciplinary research activity is enabled and supported. Acadia has made significant investments in cutting-edge infrastructure and, and has a research environment that encompasses a wide range of unique spaces, laboratories, field stations, and includes ten research centres. Anchored by the world-class research facilities in the K.C. Irving Environmental Science Centre and Harriet Irving Botanical Gardens, we also have several new initiatives, including a Centre for Rural Innovation, a Tidal Energy Institute, and the Acadia Institute for Data Analytics. We also host the Atlantic Wine Institute. Acadia is helping to strengthen rural communities by helping industry partners innovate and by optimizing economic development opportunities in our rural regions. Acadia is keen to make our research resources available to industry for collaborative and contract research activities.

Research Capabilities

Coastal and Estuarine

- Fish, Mammal and Avian Migrations and Tracking
- Ecology and Bio-Physical Processes of the Bay of Fundy
- Salt March and Waterway Health and Restoration
- Invasive Alien Species
- Monitoring the Health of Marine and Coastal environments (Nova Scotia & Arctic)

Tidal Energy Development

- Tidal Energy Resource Assessment
- Research on Marine Environments and the Environmental Impacts of Tidal Energy
- Socioeconomic Impacts of Tidal Energy Development
- Investment and financing of Tidal Energy
- Sustainable Community Development

Data Analytics

- Data collection
- Database management
- Data mining
- Machine learning
- Statistics
- Mathematical modeling
- Data visualization

Food and Beverage

- Nutritional Analysis and Labelling
- Product Development and Scale-Up Trials
- Development of Traceability and Food Compliance Programs
- Packaging Research & Design
- Consumer Sensory Studies
- Chemical Analysis of Wines
- Market Research
- Food Security
- Healthy Eating

Analytical Research on Environment

- Environmental monitoring
- Water quality and nutrient management and the environment
- Monitoring of organic contaminants and wastewater treatment
- Biogeochemistry and measuring mercury in the environment
- Measuring trace metals and chemical speciation in the environment
- Radon Measurement and Mitigation

Health Science

- Enzyme Inhibition
- Drug Design/Discovery/Synthesis
- Photodynamic Therapies
- Design of Green Synthetic Chemistry Methodologies
- Design and Synthesis of photocages

Material Science/Advanced Materials Research

(Includes research with electronic, structural, naval and medical applications; green energy technologies; smart materials)

- Design and Synthesis of photodynamic multinuclear metal complexes
- Characterization of the properties of semiconductor nanostructures
- Role of proteins in fouling and corrosion of metal surfaces
- Design/characterization of novel thin film coatings on metal and glass surfaces
- Design and synthesis of molecular compounds for hydrogen storage
- Nanolithography of materials for medical device applications
- Corrosion Inhibitors and other barrier materials
- Development of BioIndicators and Biosensors

Organizational Psychology

- Behavioural Health

- Recruitment & Retention
- Burnout
- Civility in the Workplace
- Managing Change
- Leadership

Individual and Community Health

- Rural and small community sustainability
- Active Transportation, Active Living, Active Aging
- Physical activity and exercise in health, disease and disability
- Psychological determinants of physical activity
- Injury prevention and management in health and physical activity
- Sport and active play in childrens' health
- Socio-cultural aspects of physical activity, sport and leisure
- Health and wellness in disenfranchised populations
- Environmental leadership and education
- Eco-tourism, sustainable tourism, aboriginal tourism
- Health Literacy
- Fitness Testing and Exercise Training
- Type 2 diabetes

Biology

- Alternative Insect Control Techniques and technologies (through insect pheromones)
- Interactions between malaria parasites and their hosts
- Economically important bee diseases (e.g., *Nosema*, *Varroa* mites)
- Plant Development Morphology & Systematics
- Genetic techniques addressing Conservation Ecology
- Development of cryo-preservation and propagation techniques for native plants
- Natural History, Conservation Biology, and Stewardship
- Management and Recovery of species at risk
- Applying local ecological knowledge to Conservation and Management

Contact

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