

Cape Breton University

Overview

Cape Breton University is a small comprehensive University, in Nova Scotia, with a tremendous amount of research activity. They are home to a diverse collection of research institutes and centres as well as an industry liaison officer to assist researchers in exploring opportunities for early and mature research through industrial collaborations.

Research Capabilities

Mine Water Remediation & Management

- Mine water discharge remediation
- Natural, passive discharge of flooded mines
- Reduction of maintenance requirements

Remediation Technology

- Toxicity assessment of organisms in contaminated waters
- Aquatic system contaminant risks to exposed organisms
- Ecosystem risks of acid mine water

Marine Ecosystems

- Ecological and economical sustainability of marine resources
- Emerging fishery options
- Ethical seal harvest techniques
- Floor mapping
- Estimates of ecosystem goods and services

Clean Energy from Coal

- Underground Coal Gasification (UCG)
- Coal Bed Methane (CBM)
- UCG and CBM Environmental Integrity
- Product development, including:
 - Clean Electricity
 - Clean Transportation Fuels
 - Hydrogen & Fortified Natural Gas
 - Methanol & derivatives
 - Synthetic Natural Gas (SNG)

Renewable Energy

- Geothermal Energy
- Mine Water Geothermal
- Ground & waste water source geothermal
- Deep Geothermal Systems
- Biomass
- Willow energy crops
- Energy from waste
- Pellets, Torrefaction, & electricity co-generation
- Self-sufficient integrated systems, including wind & solar

Molecular Spectroscopy

- How intermolecular forces affect physical and molecular properties
 - Vibrational Spectroscopy and quantum mechanical calculations
- Intermolecular interactions in Benzene
- Pseudo-hydrogen bond

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Intangible Cultural Heritage

- Digitalization lab
- Ethnographic and performance research
- Ethnomusicology, folklore and intangible cultural heritage
- Endangered traditions
- Media tools and policies for safe-guarding a rich cultural heritage
- Natural history and biodiversity (herbarium)

Religion & Society

- Religious attitudes, values and beliefs
- Values and insights (of Judaism, Christianity and Islam) applied to contemporary society problems

Social Justice

- Child Rights and resilience
- Child Rights, respect and responsibility
- Kids health and family quality of life
- Violence against children
- Adolescents and Drug use
- Community Liaison Officer Program

Aboriginal Business Studies

- Aboriginal tourism
- What “drives” success in Aboriginal Business
- National student recruitment in areas of post-secondary aboriginal business education
- Enhancement of post-secondary business curriculum
- Mentorship at the high school and post-secondary levels
- Membertou model for economic development
- The Unama’ki economic partnership model
- Best practices in Aboriginal economic development

Integrated Sciences & Health

- “Two-Eyed Seeing” (Integrating Indigenous & Western world views)

Psycholinguistics

- The relationship between syntax and phonology
- Sentence comprehension in children
- Phonology during sentence comprehension

Contact

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