

Nova Scotia Community College (NSCC)

Overview

Nova Scotia Community College (NSCC) offers programs to over 25,000 students each year. Their mission is to grow the economy of Nova Scotia by producing highly skilled workers, supporting and meeting industry needs, and connecting with communities. NSCC's applied research focus is an extension of its mission to support the economic and social development of the province of Nova Scotia. Expansion of capacity and scope of applied research projects since 2000 has resulted in a multi-million dollar research operation that is equipped to respond to the needs of the population. The Applied Research Office facilitates and supports applied research endeavors initiated by the college and its partners and works to transfer this knowledge to these communities.

Research Capabilities

Geomatics & Environmental Sciences

- Facilities
 - Environmental Instrumentation Network (weather stations)
 - LiDAR (Light Detection and Ranging) Airborne and ground-based systems
 - Centre of Geographic Sciences
- Capabilities
 - Business Geomatics
 - Location Analytics
 - Geographic Information Systems
 - GPS Surveying and Data Collection
 - Horticulture, Green Roof & Biowalls
 - Land use planning
 - Mapping
 - Marine Geomatics
 - Remote Sensing & Photogrammetry

Technology & Engineering

- Facilities
 - Programmable Logic Controller (PLC) Lab
 - Motors & Controls Shop
 - Soldering & Fabrication Shop
 - Advanced Electronics Lab
 - Residential & Industrial Electrical Shop
 - Computer Aided Design (CAD) Labs
 - Advanced Manufacturing Shop (CNC turning and milling centres and CMM capability)
 - Mechanical Engineering Lab
 - Conventional Machine Shop

- Plasma Technology
- **Capabilities**
 - Engineering (Civil, Electrical, Electronics, Mechanical)
 - Computer Aided Design (CAD)
 - Manufacturing & Machining (Computer Numerical Control (CNC), Conventional)
 - Data Communications Systems
 - Machine Design (including prototyping)
 - Process Engineering
 - Quality Assurance & Management
 - Surface Functionalization

Marine/Ocean Technologies

- **Facilities**
 - Nautical Institute (Transport Canada approved)
 - School of Fisheries
 - Full-Mission bridge simulation facilities
 - Fully enclosed wave-training pool
 - Dockside survival craft facility
 - Propulsion Plant Simulation
 - Maritime Communication Simulation
 - Acoustic Systems Trainer for SONAR
- **Capabilities**
 - Safety, Firefighting & Survival Training
 - Crisis Management & Security
 - Navigation
 - Naval Architecture Chart work and Pilotage

Energy

- **Facilities**
 - Applied Energy Research Lab
 - Solar Photovoltaic Test Systems (13 kW Fixed and 6.5 kW Tracking)
 - Solar Thermal Test Systems (Flat Plate and Evacuated Tube)
 - Thermal Energy Storage Test Systems (Water and Phase-Change Materials)
 - Geothermal Well-Field
 - Small Wind Turbines (1.5 kW Vertical Axis, 2.4 kW and 5 kW Horizontal-axis)
 - Building Monitoring Sensors and Systems
 - Commercial - Sustainable Demonstration Building (LEED Gold)
 - Residential - Sustainable Demonstration Home (R2000/Energuide-91)
- **Capabilities**
 - Energy Monitoring Technology Development
 - Energy Supervisory Control and Data Acquisition (SCADA)
 - Energy Data Telemetry
 - Energy Data Analytics
 - Energy Modeling and Simulation (includes Building Simulation)
 - Liquid Biofuels Testing
 - Life-Cycle and greenhouse gas (GHG) Analysis
 - Energy Project Feasibility Analysis (RETScreen)

- Energy Auditing, including Solar Site Assessment

Information & Computer Technology

- Facilities
 - Wide Area Network Simulation
 - Enterprise Network Simulation
 - High reliability and virtualized computer systems
 - Multiple Operating Systems
- Capabilities
 - Computer programming
 - Computer System Virtualization
 - Data Acquisition Systems
 - Data Communications Systems
 - Data, Network and Systems encryption and security
 - Database Management & Design
 - Internet enabled data presentation and retrieval
 - Software Engineering
 - Systems Management & Design

Health & Human Services

Facilities

- Dental Clinic
- Early Childhood Support Centres
- Medical Technology Laboratory
- Pharmacy Technology Lab
- Practical Nursing & Continuing Care Laboratories

Capabilities

- Early Childhood Years
- Aging Populations and Assistive Technologies
- Learning Methodologies Reflecting Cultural Diversity
- Life Course Transitions for Persons with Disabilities
- Addiction Counselling
- Mental Health Strategies

Contact

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