NSCC Applied Research

Applied Research at NSCC is an extension of the College’s mission and is embedded in the College strategy to implement our institutional priorities. Students who work on applied research projects gain hands-on experience in their area of study, facilitating workplace readiness and contributing to NSCC’s Unique Learning Experience. Applied Research helps NSCC realize its mission by working with industry partners to grow their businesses. This direct engagement with Industry helps our province’s economy, enhances quality of life and builds innovation capacity in Nova Scotia.

Growth in our capacity and scope of applied research projects over the past decade has resulted in a research operation equipped to respond to industry and community needs, with a focus on:

- ENERGY
- ENVIRONMENT & HEALTH
- OCEAN TECHNOLOGY
- ADVANCED MANUFACTURING
- GEOGRAPHIC SCIENCES

Our Industry Liaison Officer helps industry partners connect to the expertise and resources at the College to increase productivity, competitiveness, economic development and job creation through applied research and commercialization activities.

“We turned to NSCC because of its leadership in the support and promotion of research and its strong commitment to industry partnerships.”

Ann McInnis, Vice-President, Northwood
In today’s environment, problem-solving can be a challenge for Nova Scotia businesses. Companies often need to first find the resources to tackle issues that are creating obstacles for success or growth. That’s where Applied Research can help.

Wayne St. Amour, Director, Applied Research, NSCC
Services

We partner with industry, community, entrepreneurs, government, non-profits and other academic and applied research institutions. Working together, we discover insights and solutions that deliver real results to:

- enhance productivity and innovation
- facilitate the collaboration and development of knowledge and expertise
- support and effect change in all environments (social, commercial and industrial)

The Applied Research office provides quality assurance, institutional oversight and professional guidance. Our goal is to connect clients to our faculty, staff and student-based research teams. In doing so, we help students develop their applied research skill sets, enhance the quality of the learning experience for our students and employees, and meet the needs of our partners.

“Canadian colleges are an important player in our national innovation ecosystem. The team at NSCC is showing what colleges can achieve when they have the state-of-the-art research infrastructure they need to conduct top level applied research.”

Gilles G. Patry, Canadian Foundation for Innovation

“Intellectual property at NSCC
NSCC’s primary interest is to facilitate applied research to support industry and community needs, enhance learning for students and create opportunities to work collaboratively with partners to create innovative and practical solutions. Intellectual property assignment is addressed with each partner before a project begins.

For our second-year project, we designed a device to launch and recover sonar equipment. The opportunity to apply the knowledge from our program to a real project was a phenomenal learning experience.”

Samantha Fredericks
Mechanical Engineering Technology
Resources

Atlantic Canada Opportunities Agency (ACOA) helps businesses become more competitive, innovative and productive by working with diverse communities to develop and diversify local economies and by championing the strengths of Atlantic Canada. acoa-apec.gc.ca

Canadian Foundation for Innovation (CFI): The College–Industry Innovation Fund enhances the capacity of colleges to support business innovation by providing state-of-the-art, industry-relevant research infrastructure to foster partnerships with the private sector. innovation.ca

National Research Council of Canada–Industrial Research Assistance Program (NRC–IRAP) helps small and medium-size enterprises understand technology issues and opportunities and provides linkages to the best expertise in Canada. nrc-cnrc.gc.ca

Natural Sciences and Engineering Research Council of Canada (NSERC) supports building college applied research capacity and conducting applied research activities in collaboration with, and to benefit of, industry. nserc-crsng.gc.ca

Nova Scotia Economic and Rural Development and Tourism develops public policy to promote the best environment for businesses to start and expand in the digital economy. gov.ns.ca/econ/business

A Productivity and Innovation Voucher is a credit note that small and medium-size enterprises can use to secure the help they need from Nova Scotia universities and colleges to make their businesses more innovative. gov.ns.ca/econ/pnivouchers

Nova Scotia Research and Innovation Trust (NSRIT) supports research infrastructure in Nova Scotia by matching national funding from the Canada Foundation for Innovation. nsrit.ca

Springboard Atlantic members increase research commercialization collaborations, support the creation of new and improved products, streamline processes and help develop a skilled and competitive workforce. springboardatlantic.ca

1 Listed alphabetically

PILIKAN HOUSE
A demonstration site and living lab which uses innovative green technology and sustainable design for residential construction.
Facilities and capabilities

Students, faculty, business partners and industry collaborate to generate solutions to real-world problems using the power of technology, creativity, imagination and innovation.

“Collaborating with NSCC provides an opportunity to develop and test new approaches while developing both the technical skills and problem solving in students. This extends the capabilities of both NSCC and industry.”

Jim Fletcher, Chief Engineer, Green Power Labs

CENTRE FOR THE BUILT ENVIRONMENT

NSCC’s Centre for the Built Environment at the Waterfront Campus in Dartmouth is home to the Engineered Technologies Research Group and the Applied Energy Research Group. This state-of-the-art building provides a living laboratory in which to study the built environment and contains a dedicated area to conduct research in sustainable technologies for a clean energy future.

PROGRAM AND FACULTY EXPERTISE

With 140 programs, NSCC offers applied research partnering and potential in a variety of fields.

KNOWLEDGE GROWTH

“Students benefit from working with Applied Research by applying the skills they’re learning to real-world problems.”

David Colville, Research Scientist

DESIGN & INNOVATION CENTRE

The Design and Innovation Centre provides an area where NSCC can work with industry partners to explore new ideas using a specialized suite of technology that includes advanced design software and a 3D scanner and printer. NSCC is evolving its Applied Research program through building capacity in sustainable shipbuilding technologies and engineered technologies that enable aging in place.
APPLIED GEOMATICS RESEARCH GROUP
NSCC has extensive research experience in geomatics which stems from the Applied Geomatics Research Group (AGRG) located in Middleton at the Annapolis Valley Campus. AGRG applies geomatics technologies to research questions in the environmental sciences, hydrographic mapping technology, natural resource management and health informatics sectors.

CENTRE FOR GEOGRAPHIC SCIENCE (COGS)
Located in Lawrencetown, COGS is Canada’s largest geomatics-focused learning environment offering programs in the fields of surveying, mapping, land-use planning and related computer programming. COGS also offers advanced studies in marine geomatics, remote sensing, geographic information systems (GIS), and business geomatics.

NAUTICAL INSTITUTE
The Nautical Institute supports training and other oceans technology related initiatives and applied research opportunities for our industry partners. The institute hosts a full mission bridge simulator, propulsion plant simulator, fire training centre, fast rescue boat facilities, life boat simulator and wave simulator.
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Ann McInnis, Vice-President, Northwood