



AURORA COLLEGE
TRANSFORMATION

Initial Areas of Teaching and Research Specialization for the Polytechnic University

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Government of
Northwest Territories

INTRODUCTION

We are transforming Aurora College into an effective, efficient and sustainable polytechnic university that is more responsive to the needs of Northerners.

This is a multi-year process that will change many things about the way the institution operates, including the academic programs it offers and how it supports research. As part of that process, initial areas of teaching and research specialization for the polytechnic university have been identified.

Areas of specialization are at the core of a post-secondary education institution's identity. They signal the institution's teaching and research focus to current and prospective students, educators, researchers, funders and partners. As part of the transformation process, they will inform a wide range of changes that will help to define what success means to the polytechnic university. They will also help to ensure overall success by shaping ongoing investments in teaching and research programs, student supports and facilities.

Areas of specialization are not themselves teaching or research programs. Rather, they are broad themes that provide structure to the polytechnic university, a required step in meeting the vision, mission and goals of the institution. We look forward to establishing new teaching and research programs within the areas of specialization that put Northerners first in line for in-demand jobs and leverage our strong connections to land, tradition, community and people.

All post-secondary institutions naturally evolve over time and what is presented here is a starting point for areas of specialization for the polytechnic university. Although these areas will be most evident at the polytechnic university, incremental changes will be made to strengthen Aurora College leading up to the launch. The regular renewal of the polytechnic university strategic plan will provide future opportunities for refinement or expansion of the areas of specialization.

As the institution emerges from transformation it will be stronger, more accessible and able to attract a greater number of students from within the NWT and beyond. Through a strengthened foundation, the institution will develop new and laddered programs over time within the areas of teaching and research specialization. This will provide direct economic benefits to Northern communities, particularly the three campus communities.

The four areas of specialization outlined in this document are based on a set of measures that have guided their development and will continue to guide their implementation over the coming years. They have also been informed by wide-ranging engagements related to transformation, starting with initial engagements in 2017 during the Aurora College

Foundational Review to feedback on the Polytechnic University Areas of Teaching and Research Specialization discussion paper in September 2020.

In the context of transformational change, how we change can be just as important as what changes. Aurora College must continue to support existing students and researchers during the transformation process and balance the need to be responsive with the need to be practical when it comes to the scope and pace of change. Although the polytechnic university cannot be everything to everybody, as a leader in the NWT post-secondary education system it will demonstrate excellence in teaching and research, and ensure increased access to post-secondary education opportunities for Northerners. This includes responding to different ways of being, knowing and doing in teaching and research to ensure that access is equitable and benefits all Northerners.

ENGAGEMENT AND FEEDBACK

The Department of Education, Culture and Employment (ECE) and Aurora College have been engaging partners, stakeholders and the public on issues directly and indirectly related to areas of specialization since 2017.

A set of initial areas of specialization were first proposed in a discussion paper and we actively sought feedback on the discussion paper from partners, stakeholders and members of the public.

The perspectives, ideas and concerns conveyed by Indigenous governments, industry groups, businesses, Aurora College employees, members of the Aurora College Transformation Academic Advisory Council and interested members of the public have helped shape this important step in the establishment of a polytechnic university. In particular, recent feedback on the discussion paper resulted in:

- Modifications to the initial areas of teaching and research specialization, primarily around how they are defined;
- A clearer vision of how teaching and research programs within these areas of specialization will be implemented moving forward; and
- A better understanding of how partners and stakeholders want to collaborate on other issues moving forward.

Feedback reflected support among partners and stakeholders for a focused approach that ensures excellence in teaching and research. There was wide recognition that the polytechnic university cannot be everything to everybody, and that some teaching and research needs will continue to be met through collaborations with other post-secondary education institutions that have the relevant specialization and capacity.

There was interest among some stakeholders that could see their own needs reflected in the proposed areas of specialization and, to some extent, various stakeholders expressed support for one or more of the areas. However, some specific needs did not have a clear place under the areas of specialization. This was anticipated, and we will continue to consider and respond to different perspectives, ideas and concerns, but always with the understanding that we must ensure the polytechnic university can clearly define and achieve success.

Some of the feedback we received made clear that a lack of commitment to build new infrastructure or announce a new

program in their community was disappointing, with some inferring a lack of commitment or progress in the transformation. This was not the intent of the engagement, the purpose of establishing areas of specialization, or an accurate reflection of where we are in the overall transformation process. Taking steps in the right order and at the right time is essential to establishing an effective, efficient and sustainable polytechnic university. The release of the Implementation Plan and associated website will help to address questions about where we are in the transformation process, increase understanding of the full scope of work involved and continue to build excitement for the path ahead.

In the end, the feedback from the discussion paper has been highly informative and will strengthen the areas of specialization and overall transformation process. This has provided a clearer sense of what will work best and how we can continue to work together in shaping many aspects of teaching and research.

MEASURES

A series of measures for the selection of areas of specialization has helped the GNWT navigate this aspect of the transformation process and will, together with further engagement, support the development of teaching and research programs and decisions around student supports and facilities.

Collectively, this first set of measures looks inward to the existing assets and structures of the institution that are needed to support proposed initial areas of specialization. Success means the polytechnic university has the financial and human resources, partnerships and facilities to sustain the development and growth of teaching and research in the areas of specialization. Future decision-making will ensure establishment of an effective, efficient and sustainable polytechnic university by considering:

- Interdisciplinary teaching and research
- Current and anticipated financial support
- Existing and anticipated facilities
- Human resource capacity
- Partnerships

Collectively, this second set of measures looks outward to local, regional and territorial needs. It will help put Northerners first in line for in-demand jobs and leverage our strong connections to land, tradition, community and people. Success means the polytechnic university is equipped to recognize and respond to these needs. When areas of specialization are in alignment with these needs, the institution can engage partners and stakeholders in meaningful dialogue around potential teaching and research programs, as well as co-investment opportunities for the growth and development of new programming. Future decision making will ensure the polytechnic university is supporting Northern social and economic development by considering:

- NWT labour market demand
- NWT knowledge economy
- Opportunities for collaboration with Northern businesses
- Emerging or urgent social issues
- GNWT Knowledge Agenda
- Northern knowledge transfer
- Geographic advantage
- Cultural responsiveness
- Student attraction

AREAS OF SPECIALIZATION

Teaching and research programs within the areas of specialization will put Northerners first in line for in-demand jobs and will leverage our strong connections to land, tradition, community and people.

At the same time, the labour market will be strengthened through an increase in graduates with the skills required for career success. The following initial areas of specialization for the polytechnic university will serve as a foundation for future engagement and planning around teaching and research programs, student supports and facilities.



Skilled Trades and Technology

This area of specialization focuses on skilled trades, with a particular focus on the application of new and emerging technology. Skilled trades and technology are the backbone of any polytechnic university. In the NWT, trades make up an important segment of the labour market and training will target areas where there is a high potential for employment. In particular, increasing labour demand from non-renewable resource extraction

and contaminated site remediation will create opportunities for journeypersons and tradespeople. Whereas a large segment of the labour force within this area of specialization comes from outside the NWT, the polytechnic university will strive to increase employment opportunities for Northerners.

The trades are evolving into technologically advanced careers. This includes trades such as

plumbing or carpentry that increasingly incorporate new and emerging technology. For example, there is now a requirement in many fields to combine advanced math and computer programming skills with manual skills. Responding to this trend and keeping pace with changing labour market demands requires close and ongoing collaboration with NWT employers, with the overarching aim of preparing students for the jobs of

the future. For this reason, the area of specialization references both trades and technology.

This is an area of specialization with great potential for research programs that seek innovative solutions to issues around construction and maintenance of Northern infrastructure,

including housing, transportation, communications and energy. Applied research, conducted for and with businesses, builds innovation skills that advance student ingenuity and industry-level commercialization. The growing deterioration of some infrastructure, as well as the associated hazards to the well-being of residents in small

communities, is driving an increasing need to adapt and build resilience. A good example of this is research related to climate change. Climate change is affecting infrastructure such as buildings, bridges, roads, water and wastewater systems, energy transmission and transit.



Earth Resources and Environmental Management

This area of specialization encompasses earth resources and environmental management as interconnected themes that can be addressed through a common set of teaching and research programs. Within this area of specialization students will gain theoretical and applied knowledge in environmental analysis and problem solving. Teaching and research will advance efforts to manage the natural environment and learn about local climate change.

Environmental management involves decisions, strategies, programs and projects to sustainably use the environment in line with broader social values and objectives. Environmental managers work in the public, private and non-governmental sectors and are responsible for lessening environmental impacts and ensuring that all applicable legislative requirements are fulfilled. The NWT has cutting-edge processes and governance structures in place for

environmental impact assessments that create unique opportunities for teaching and research.

Overlapping substantially with environmental management is teaching and research related to earth resources. Earth resources are anything extracted from the ground. From exploration to extraction, remediation and reclamation, the labour demands and research opportunities related to this sector are significant and

reflect a critical part of the NWT's economy. As one of the largest users of high-technology equipment and applications, the earth resources sector requires practitioners who have the skills to keep up with these advances. Technical and management positions increasingly require post-secondary education and it is important that NWT residents are first in line for these employment opportunities.

Increased participation of NWT residents in the earth resources and environmental management sector will depend on the accessibility of high-quality and relevant education opportunities. However, to be effective, programs must also be grounded in the realities of the NWT. The diverse lands, cultures and ways of life in the NWT intertwine the legislation, policies, practices and partnerships that shape the earth resources sector and guide environmental management. Incorporating these strengths into teaching and research at the polytechnic university will support the people, cultures and communities that rely on a strong economy and healthy environment.

The negotiation and implementation of land, resources and self-government agreements continue to shape the present and future of

the NWT. Since the devolution of responsibility for land and resources to the GNWT in 2014, the GNWT has been acquiring new responsibilities and authorities, and there has been broad engagement on Northern lands, stewardship and leadership. The territory encompasses a diverse array of land management systems and agreements, many of which explicitly recognize Indigenous peoples' authorities over lands and environmental resources.

The development of Indigenous Guardians and environmental management programs to enhance opportunities for Indigenous people to develop and establish land management and monitoring systems are supported and funded by the GNWT and the Government of Canada. This has resulted in an array of programs led by Indigenous governments, communities or organizations, including community-based monitoring programs, environmental monitoring programs, Guardian training programs and traditional knowledge monitoring programs. There is an opportunity for researchers at the polytechnic university to collaborate with these organizations to support an applied research program focused on systems, tools and methods of implementation for environmental management.

There is already an active research community in the NWT focused on studying different aspects of climate change and adaptation. Much of this work contributes to national and international efforts in documenting, monitoring and modelling climate change in the physical environment, and there is a significant demand for applied adaptive research to support information and community needs within the NWT. This includes the use of geographic information systems (GIS) and remote sensing tools that have been a feature of many Northern research projects and will be increasingly important under this area of specialization.

Research that intersects environmental and social research priorities benefits NWT communities and complements work around cultural sustainability. This includes efforts to improve understanding of the impacts of development and climate change on Northern cultures, and to improve the preservation and use of cultural practices and traditional knowledge.



Northern Health, Education and Community Services

This area of specialization focuses on empowering people to help and support others in Northern communities. This will include teaching and research that supports physical, mental and emotional health in a manner that fosters personal and community resilience. It will also include training for educators who will, in turn, provide care, mentorship and support to generations of Northerners. Teaching and research in this area of specialization requires an understanding of the people, cultures and land that define Northern communities.

This specialization will respond to the health and social support needs of the people and communities of the NWT. It includes programs that graduate Northerners who will go on to work in our health centres, hospitals, schools and childcare facilities. It also responds to gaps in knowledge and opportunities for increased program effectiveness through a diverse range of research programs.

Aurora College has partnered on a diverse set of health and education research programs and maintains a presence in a broad array of national

research networks. This research takes different forms, including participatory action research, which seeks to understand the world by trying to change it, collaboratively and following reflection. This typically involves researchers and community members working together to understand a problem and changing it for the better.



Business and Leadership

Being a leader is not a position, it is about a person's ability to guide and support others. Leaders face a range of challenges that can impact the culture within their team, the development of their team members and the future of their organizations. Innovation and entrepreneurship go hand-in-hand and will benefit from a Northern perspective. This includes social entrepreneurship, an approach that focuses on the development, funding and implementation of solutions to social, cultural or environmental issues. These efforts will support and be informed through close collaboration with the business community. The NWT has untapped economic potential and skills, built through business and leadership, which will support opportunities for economic diversification, create jobs and strengthen communities.

Federal, territorial, Indigenous and community governments, as well as non-governmental organizations and businesses require employees with business and leadership education. More specifically, they require education that can help their employees succeed in a Northern social and economic context.

The public service will continue to be the largest overall employer in the NWT and programming at the polytechnic will be, in part, geared toward ensuring Northerners have access to those jobs. This may be at the early stage of a career or to support advancement through ongoing professional development opportunities.

Teaching and research in business and leadership will complement the other areas of specialization. Being a leader in positions related to Northern technology and innovation; earth resources and environmental management;

and Northern health, education and community service requires the knowledge, skills and ability to identify and respond to local economic, social and political conditions.

Like all other areas of specialization at the polytechnic university, research in the area of business and leadership will rely on collaboration with industry and partners. The role for Northerners as future leaders in private, public and non-governmental organizations increasingly requires an understanding of what is required of our leaders now and into the future.

BENEFITS OF AREAS OF SPECIALIZATION

By strengthening the institution and planning for change around the areas of specialization, the anticipated outcomes include:

Clear sense of identity

Areas of specialization enrich the character of an institution by strengthening its identity.

Continuous quality improvement

The capacity for continuous quality improvement (CQI) encourages all employees to continuously reflect on what can be done to improve efficiency, effectiveness and the ability to remain responsive and sustainable.

Increased student enrolment

As the new polytechnic university matures, more students from the NWT and from across Canada and the world will be increasingly drawn to the unique learning opportunities as it becomes recognized as “the place to be” for defined areas of specialization.

Qualified faculty

The polytechnic university must continuously attract new faculty. Qualified and career-minded faculty will look for teaching and research opportunities that they can identify with and that create opportunities to demonstrate excellence in their chosen fields.

Increase the range of qualifications offered

Focusing on areas of specialization will enable the polytechnic university to offer a greater range of certifications and qualifications to prospective students. Consistent investments in a small number of areas will provide a strong foundation for the growth of programming.

Attract co-investment partners

Potential co-investment partners are drawn to institutions that have clear areas of specialization and are able to demonstrate excellence in these areas.

A PLACE FOR EVERY NWT RESIDENT

The polytechnic university will have a place for every resident who seeks an opportunity to further their skills, knowledge and abilities through post-secondary education.

This means meeting students where they are in their educational journey and being supportive through the entire journey, from applying to a program offered by a community learning centre or campus right through to employment success. This requires a learning-centred approach that aligns institutional success with student success.

It is essential that students can pursue an education in a way that makes sense for them and that leads to meaningful outcomes. The majority of Aurora College students are Indigenous and we are committed to creating a culturally meaningful environment where Indigenous students can grow and succeed. In developing student pathways, the transformation process will re-examine where and how individual courses and entire programs are delivered, be it in communities, at campuses, through distance learning or in partnership with other institutions, including specialized NWT-based organizations like Dechinta Centre for Research and Learning or Collège nordique francophone.

The polytechnic university will continue to offer academic upgrading and access programs to increase options for students to take advantage of the ever-growing range of certificate, diploma and degree programs. At the same time, it will expand the scope of programming offered in small communities. The goal is for the polytechnic university to maintain regular and more wide-ranging programming in every community in the NWT. Through enhancements to the processes for recruitment and retention of students, the polytechnic university will never turn away any resident seeking to gain a foothold in the education system. Every resident will be supported in setting and achieving academic and career goals that make sense for them. The success of the polytechnic university and the success of students will be one and the same.

It is important to recognize that the polytechnic university will serve as a bridge to programs at other post-secondary institutions across Canada and around the world. In some instances, NWT residents will take advantage of learning

opportunities close to home in order to qualify them for opportunities at other institutions. In other instances, prospective students, current students or graduates from other post-secondary institutions will take advantage of unique learning opportunities in the NWT by continuing their education at the polytechnic university where Indigenous, traditional and local knowledge will be respected and incorporated into teaching and research. Employers will benefit from increased professional development opportunities for their staff that helps ensure a strong and adaptive NWT labour force.

The polytechnic university will be focused on programming within its established areas of specialization. However, through co-investment partnerships with partners and stakeholders, the polytechnic university can facilitate the delivery of additional programming at a campus or in a community to meet specialized education and training needs.

CO-INVESTMENT PARTNERSHIPS

The polytechnic university will be an innovative institution as reflected in its strategy, operations and organizational culture.

Such innovation will extend to how the polytechnic university collaborates with partners to maximize post-secondary education and research opportunities across the NWT.

The term “co-investment partner” includes any organization with a common interest in post-secondary education or research that, through a formal agreement, contributes knowledge, resources or funding to the polytechnic university.

Through co-investment partnership agreements, Aurora College will frame how it collaborates on teaching and research with GNWT and federal departments, Indigenous governments, communities, industry, non-

governmental organizations and other post-secondary institutions. Such agreements will, in most instances, continue past the launch of the polytechnic university, as ongoing collaboration will be a hallmark of the institution’s success.

NEXT STEPS

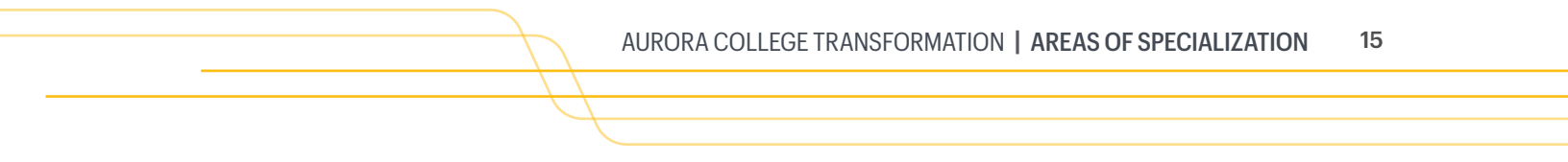
The journey toward a polytechnic university began with the GNWT commitment to ensure increased access for NWT residents to a quality post-secondary education.

Areas of teaching and research specialization will provide a basis for planning and implementing new and enhanced programming at the polytechnic university, both at campuses and community learning centres.

Through the transformation into a polytechnic university, the institution will be taking a renewed approach to regional and campus-based program delivery to help achieve this goal. This will involve working with partners and stakeholders to inform decisions and shape program design.

Regions, communities and people of the NWT are diverse, and that diversity must be supported by a program delivery model that is responsive to the needs of each community. It is essential that graduates are equipped

with the knowledge, skills and abilities to access Northern jobs. It is also essential that research is increasingly done by and for Northerners.





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