

Green Paper¹

Section 2: The Brampton University Academic Strategy

2.1 Introduction

In 2016, US based think tank Academic Impressions published a report based on a frank dialogue with five current and former university presidents in the US on how to manage change in higher education institutions: *Focus on the Future: Lessons on Effecting Change*.² The report opens with a quote attributed to Zell Miller, former governor of Georgia and chancellor of the University System of Georgia: “It’s easier to change the course of history than change a history course.”

As we noted in Section 1, financial, accountability and competitive pressures on universities are increasing around the world and historic tensions between administrators, faculty and students are growing. So there is no doubt that fundamental change – disruptive or managed – is coming. However, in these circumstances, the one power that individual academics, departments, schools, faculties and senate committees guard most jealously is the power to determine academic programming in their traditional disciplines. This often manifests itself in resistance to external influence from the ‘job market’ in the design of programs, and certainly a resistance to introducing measurement systems that reflect the employability of graduates. The current Ontario government is addressing this question directly, promising much greater accountability for university funding with respect to employment outcomes.

There is little question that most students who go into higher education are motivated primarily by employment-related aspirations, which explains the continuing importance of professional education (law, engineering, medicine and health professions, teaching, business etc) to the academic and financial models of universities. Equally, there is a growing literature on how society’s needs may be met through the enhanced development of higher order skills in university education: systems thinking, multi-stakeholder problem solving, team-based working, learning to learn, as well as the basic communication attributes required by employers: literacy, numeracy etc.³

Happily, there are many examples of innovative, inter-disciplinary, employment-relevant programming in Ontario, in Canada and around the world that are inspired by the present and future needs of graduates in the workplace.⁴ However, the current drive in Ontario (and indeed many other jurisdictions) for more accountability over employability skills and the maximisation of talent retention

¹ Disclaimer: The City makes no representations or warranties regarding the content of this report or the establishment of a Brampton University.

² Mrig, A and Sanaghan, P (2016). *Focus on the Future. Lessons on Effecting Change*. Denver: Academic Impressions.

³ Davidson, C N (2017) [*The New Education: How to Revolutionize the University to Prepare Students for a World in Flux*](#). New York: Basic Books.

⁴ McKie, A (2019). [How to equip graduates for the future](#). Times Higher Education 7th March, 2019.

among graduates is a hard battle to win given the incumbent power structures and discipline-based decision-making processes of traditional universities.

In the United Kingdom, there is a national strategy for higher education where financial support increasingly reflects research and teaching outcomes (measured through Research and Teaching Excellence Frameworks). In the UK, universities have been required to publish data on employment outcomes as well as student satisfaction for all individual programs of study since 2012.⁵ Today, any prospective student in the UK is able to see relevant data on individual program description web sites. They can also interrogate a national database⁶ and enter search characteristics for individual programs and courses of study.

The introduction of these measures has not been without debate, and of course they strike at the heart of notions of faculty autonomy in university decision-making on program design and quality. In Ontario similar data are available, but they exist only at the program area and institutional level rather than the individual degree program designation and (unlike the UK) do not feature systematically in university program description pages.⁷

On the topic of the mismatch of perceptions between the academy and employers on the employability characteristics of graduates in North America, Harvey Weingarten, former President of the Higher Education Quality Council of Ontario (HEQCO), wrote in 2018:

“Are graduates appropriately numerate and literate to perform and succeed in tomorrow’s labour market? Do they have a mastery of critical thinking, communication, problem solving and interpersonal skills? Feedback from employers, professors and students suggests room for considerable improvement (Borwein, 2014; Business Council of Canada, 2018). Given that students overwhelmingly state that getting a good job is a primary motive for investing in higher education, do they graduate with the requisite skill sets to meet this important goal? Graduates themselves tell us: not so much.”⁸

This conclusion was further evidenced by a 2018 survey of more than 6000 Ontario students conducted for HEQCO which concluded:

“Survey responses suggest that students perceive a gap between the skills they will need for their future careers and the skills they are developing while in university or college. The largest gaps identified are in business etiquette, leadership, teamwork and creative/innovative thinking skills.”⁹

These are precisely the sort of observations that are made by employers in Brampton (see Section 3). Work is underway in Ontario to explore the impact of university education on employability,

⁵ See [HESA website](#) (accessed 31st May 2019)

⁶ See [Unistats website](#) (accessed 31st May 2019).

⁷ See [Ministry of Training, Colleges and Universities website](#) (accessed 31st May 2019).

⁸ Weingarten, H. P. & Hicks, M. (2018). On Test: Skills. Summary of findings from HEQCO’s skills assessment pilot studies. Toronto: Higher Education Quality Council of Ontario

⁹ Lenarcic Biss, D. & Pichette, J. (2018) Minding the Gap? Ontario postsecondary students’ perceptions on the state of their skills. Toronto: Higher Education Quality Council of Ontario

coordinated by HEQCO.¹⁰ However this work is only at the pilot study stage. Meanwhile the provincial government is making very clear that they wish a significant proportion of university funding in the future to be tied to performance measures which will almost certainly include employability metrics as a central component of their accountability framework.^{11 12}

Below we set out the Academic Strategy for Brampton University in three areas: 2.2: Teaching and Learning Strategy; 2.3: Program Strategy and 2.4: Quality Assurance Strategy.

2.2 A Teaching and Learning Strategy for Brampton University

The City of Brampton's 2040 Vision requires global excellence in teaching and learning. Goals such as "increased innovation and competitiveness" mean that Brampton University is expected to be a catalyst for increased inward investment and job growth for the City and the region. The university's success as a competitive asset for Brampton must be evaluated in comparison with other cities with established universities, not simply compared to the currently fragmented public and private higher education offerings within the City (see Section 3).

Accordingly, we believe the teaching and learning goals for Brampton University cannot be limited to offering programs and services merely 'as good as' established Ontario universities. A higher level of ambition is required if the City is to meet its social, cultural and economic goals, and indeed the aspirations of the provincial government for more relevant programming for the 21st century which delivers for families and employers.

Happily, since Brampton University and the Brampton University System will not be locked into existing structures and practices, we believe the institution and its partners can leverage its newness to adapt leading-edge developments beyond Ontario for excellence in the following areas:

- Emerging areas of workplace capability for all learners: career-long and career-wide.
- Changing learner demographics and new '*employability*' competencies, to develop the skills, knowledge and mindsets needed in Brampton's current and future workplaces.
- Design, prototyping and testing of innovative structures and practices for these new goals, while modeling leading-edge Agile, Lean and Design-Led work practices.
- Collaboration in new partnership and engagement structures with regional workplace partners in all sectors (Corporate, Public, Community, SME, Labour), for a thriving Brampton economy, social and cultural development and sustainability.

¹⁰ See for example: Weingarten, H. P. & Hicks, M. (2018). On Test: Skills. Summary of findings from HEQCO's skills assessment pilot studies. Toronto: Higher Education Quality Council of Ontario and Finnie, R., Dubois, M., Pavlic, D. & Suleymanoglu (Bozkurt), E. (2018). Measuring critical thinking skills of postsecondary students. Toronto: Higher Education Quality Council of Ontario.

¹¹ Miller J (2019). "[Revolutionary" new funding to shake up Ontario's colleges and universities](#). Ottawa Citizen, 12th April 2019.

¹² Crawley, M (2019). [How the Ford government will decide on university, college funding](#). CBC News 6th May 2019.

- Developing appropriate management structures to systematically sustain this continuing innovation as the university matures.

Brampton University will use these approaches to support the City's 2040 Vision with a clear Teaching and Learning Strategy that prioritizes becoming globally exemplary in specific key strengths in teaching and learning, leveraging those strengths to the benefit of Brampton partners and higher education across Ontario, and sustaining this strategic position through collaboration with academic and workplace partners, domestically and internationally.

The remainder of this section will identify criteria for our proposed key strengths in teaching and learning, and explore some examples to demonstrate the necessity and feasibility of such choices.

We begin with an overview of the elements of a successful Teaching and Learning Strategy.

2.2.1 What is a Teaching and Learning Strategy?

The conceptual model we have applied to our Teaching and Learning Strategy is an adaptation of the *Five Questions of Strategy* approach co-developed by Roger Martin, former Dean of the Rotman School of Management (University of Toronto), as illustrated below in Figure 2.1.

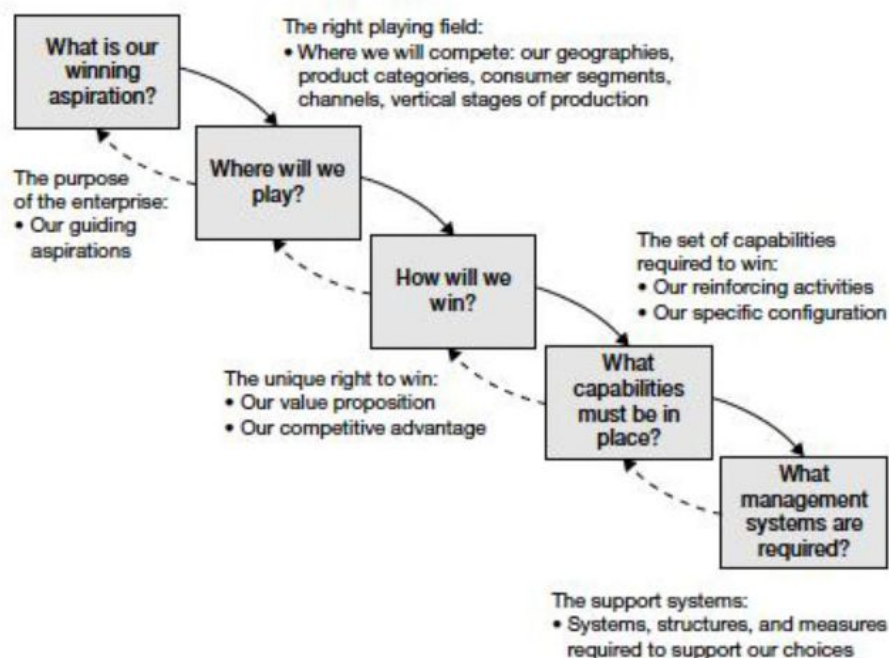


Figure 2.1. The Five Questions of Strategy, (Lafley, A. G., and Martin, R. L. 2013. *Playing to win: How strategy really works*. Cambridge Mass: Harvard Business Press.¹³

We address the first three of these five questions.

Q1: What is our winning aspiration? We are proposing a candidate winning aspiration “to become globally exemplary in key areas that support the Brampton 2040 Vision goals, to sustain this leadership role, leverage it to the benefit of higher education across Ontario, and be recognized for our distinctive excellence.”

Q2: Where will we play? Our proposed key strengths are:

- In-Demand Capabilities plus ‘employability’ for the future of work
- Emerging ‘Work and Life’ Themes: Digital Transformation, Innovation and Sustainability
- Talent development in partnership with employers and workplaces

¹³ Available via: <https://rogerlmartin.com/lets-read/playing-to-win>; <https://hbr.org/2010/05/the-five-questions-of-strategy/>; <http://www.innovationexcellence.com/blog/2014/03/28/what-is-your-winning-aspiration/>. Accessed 21st February 2020.

- Inclusion of New Canadians

Q3: How will we win? For each of these focal areas, we will illustrate the directions in which the University should excel within Ontario and be recognized as a leading-edge collaborator within and beyond Ontario.

The remaining Questions from Figure 2.1 regarding **Capabilities** and **Management Systems** are addressed in other chapters of this proposal.

2.2.2 Key Strengths

Each of our proposed key strengths satisfy the following criteria:

- Supports the Brampton 2040 Vision goals.
- Leverages the unique opportunity provided by the inception of a new university.
- Offers programs¹⁴ with compelling and distinctive value, both short- and long-term: i) engaging student-centred learning experiences, e.g. hands-on project-based learning on applied problems and innovative Work-Integrated Learning (WIL) opportunities; and ii) generating capabilities for both short-term and career-long success, including exemplary preparation for changes in work and the workforce.
- Engages employers as partners in co-creating and co-offering innovative learning opportunities for an agile, leading-edge workforce (including WIL placements). See Sections 1 and 3.
- Has an emerging body of evidence and shared resources from international leaders in teaching and learning.
- Adds value for the Ontario Ministry of Colleges and Universities by pioneering new teaching and learning approaches and maintaining a leadership role in our key strengths through which other Ontario higher education institutions may benefit

In this section, we use these criteria to underscore the importance of our proposed key strengths. The ‘Mini Case’ presented on the next page illustrates how integration of these elements can result in significant success on civic goals, using the innovative start-up of the University of Waterloo as example.

2.2.2 (a) In-Demand Capabilities Plus ‘Employability’ for the Future of Work

We noted above that a new university is ideally positioned to address emerging areas of in-demand capabilities, where capabilities encompass i) skills (know-how); ii) ‘big picture’ knowledge (know-why); iii) mindsets (know yourself); and iv) experiences to develop proficiency in applying the right skills at the right time with the right team members to deliver the right results.

¹⁴ The *Integrating Traditional Academic & Continuing Professional Education* theme explores non-degree programs

Mini Case 1: The Successful Strategic Positioning of the University of Waterloo

The University of Waterloo is an Ontario exemplar of a new institution establishing a distinctive strategic position, resulting in outstanding contributions to regional economic development.

- The *Winning Aspiration* was a much closer relationship with workplace partners (“Industry”) and a much stronger focus on technology than was the case for established universities.
- The *Where We Will Win* decisions included a new priority on Engineering and Technology areas, and the inclusion of emerging areas like Computer Science as fields of study in their own right.
- The *How We Will Win* plan focused on integrating conceptual and experiential learning, including the first-in-Canada introduction of Co-operative Education: “a means through which more people will be able to pursue college education” and “give their education the application required for successful progress”.
- The distinctive new *Capabilities* included year-round academic terms and a Co-operative Education unit with the necessary infrastructure to identify and manage relationships with workplace partners.
- The distinctive new *Organizational Structures* included a culture that valued student-led innovation, encouragement of student (and faculty) entrepreneurship, and new Intellectual Property policies which supported commercialization of research results.

This strategy was not well-received by existing institutions: *“There was...heavy opposition to co-operative education...on the grounds of endangering academic standards... from established university circles...openly critical of the Plan without even having knowledge of the proposed course of studies...More perplexing were the criticisms of the proposed relationships with Industry. Terming the plan ‘interrupted education’, critics predicted that a shallow program of work would be the end result for students.”* Quotations from *Waterloo: The unconventional founding of an unconventional university* by Kenneth McLaughlin. University of Waterloo. 1997

A number of in-demand areas for the Brampton workforce have been identified through labour market analysis (Chapter 3) and public engagement (Chapter 8). However, we know that the workforce picture today does not fully reflect the picture of our future workforce in Brampton. The founder of a new region-serving public university in the U.S. concisely summarized this challenge for the founding faculty members as:

“Future work will involve our graduates more and more in working with knowledge that does not yet exist, using knowledge practices that do not yet exist, in work roles that do not yet exist.”

To further the Brampton 2040 Vision goals, Brampton University must support learners in developing their employability through ‘in-demand workforce capabilities’ on program completion and at the same

time developing their 'employability'. Employability is the ability of employers and employees to jointly respond quickly to changes in order to continue delivering added value.¹⁵

One example of developing employability is shown in Figure 2.2,¹⁶ a representation of the T-Shaped Engineer concept which has been the catalyst for many initiatives to prepare engineering students for future roles beyond initial job roles on graduation. The interaction between the vertical and the horizontal components is the key to developing employability.

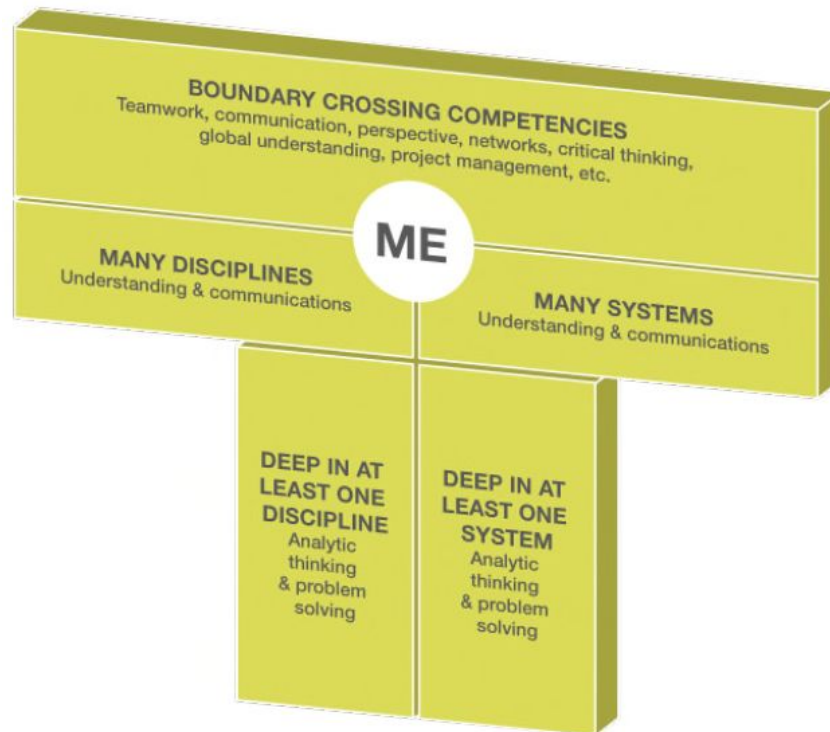


Figure 2.2. The T-Shaped Engineer

Deep in a *Discipline* implies strength in a particular Engineering area, for example Civil Engineering.

Deep in an *Application System* refers to problem-based and work-integrated learning in a particular domain, for example Energy Systems or Transportations Systems, so that the complex network of relationships within the domain become evident. This knowledge of the interlocking parts in the application domain also prepares students to work in interdisciplinary teams and to take on future roles in those fields (Energy, Transportation, etc.).

¹⁵ "Employability... extends existing discussion of employability outcomes, dominated by findings from larger organizations, toward a more meaningful concept of employability where graduates engage in "agile" life-long skills development, through exposure to learning within SMEs (small and medium enterprises) enhancing their potential to contribute to local and wider economies".¹⁵

¹⁶ "The "T-shaped" engineer." Peter Rogers and Richard J. Freuler In American Society of Engineering Education (ASEE), Proceedings of the Annual Meeting, Seattle, WA, June. 2015.

The complementary horizontal Capabilities, when integrated with these vertical strengths, can provide graduates with flexibility to move more readily into new work areas – whether in response to a shortage of suitable positions in Civil Engineering on graduation, changes in the nature of Civil Engineering work or their own career development into other work roles.

Boundary-Crossing Competencies – communication, critical thinking, teamwork and collaboration – are often labelled as ‘generic capabilities’ or even ‘soft skills’. These were once the strength of liberal arts graduates but are now increasingly emphasized across all higher education programs. We explore below some of the new Generic Capabilities which could be key strengths for Brampton University: *Digital Transformation, Innovation, Sustainability*.

A knowledge *Discipline* or ‘way of knowing and doing’ provides a particular lens for seeing the world and a toolkit for engaging with the world. Working with others in multiple disciplines with complementary perspectives and expertise is vital to professional work in an increasing complex global work environment. This work across disciplines also prepares graduates to understand there they may have other latent strengths to move beyond their original focus on Engineering, Business, Design, etc.

Similarly, project-based or work integrated learning experiences in contexts across *Multiple Systems* can provide exposure to another Civil Engineering domain, to interprofessional work with or in other Engineering disciplines, and the application of Engineering as a way of thinking in other sectors, e.g., social or community enterprises, public sector and SME organizations.¹⁷ All of these experiences broaden understanding of learners’ own roles and strengths.

Figure 2.3 (overleaf) is a visual representation of one example realization of these ideas, the program structure across the College of Design, Engineering and Commerce¹⁸ at Thomas Jefferson University - an urban university in the US.

The College Studies stream of learning experiences ensure a broad base of understanding in many disciplines, through collaborative projects engaging students in multiple sectors of city life. The academic major goes into more depth in a discipline, with extended exposure to the related disciplines within the College through projects in the DEC Core. The capstone project is a work-integrated experience, assessed on the value generated for the external partners.

Ontario has no equivalent of a “College of Design, Engineering and Commerce” where students form long-term working relationships across disciplinary boundaries. There are numerous other international examples of developing employability – whether or not this term is used - which Brampton University is ideally positioned to introduce into Ontario in order to provide value to its students, to the larger city and region, and to the provincial higher education system as a whole.

¹⁷ For example the commonalities across Engineering disciplines are the focus of the CDIO Initiative, <http://www.cdio.org/>

¹⁸ www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce.html

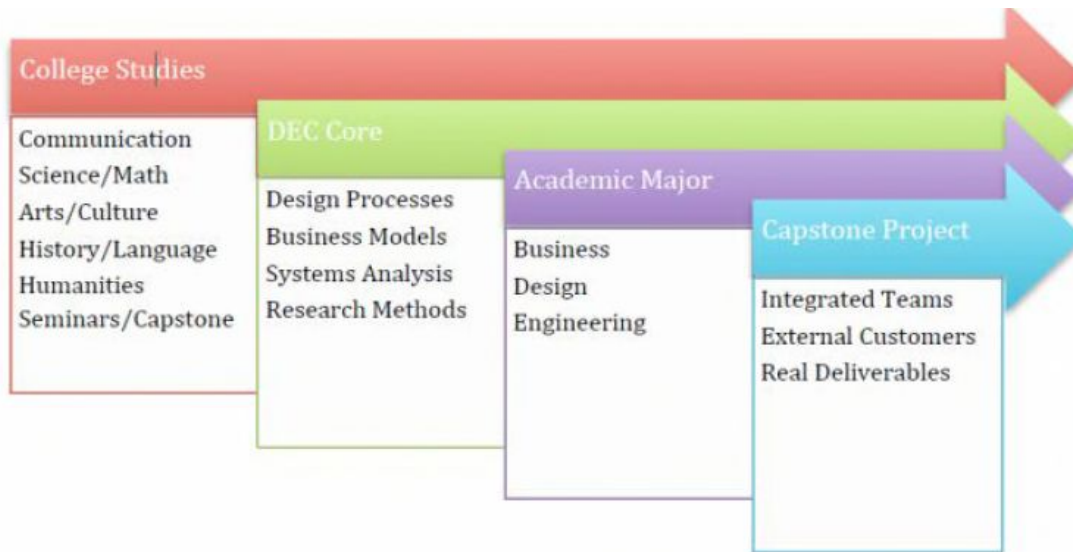


Figure 2.3. Common Program Structure across the College of Design, Engineering and Commerce Thomas Jefferson University (Philadelphia)

2.2.2 (b) Emerging Work and Life Themes: Digital Transformation, Innovation, Sustainability

The traditional elements of ‘broad-based competencies’, as described in the T-Shaped Engineer example above, can be extended to incorporate additional graduate attributes to prepare for future ways of working and living. In the Waterloo example described in Mini Case 1 above, technology proficiency and knowledge application were underlying attributes across all curricular areas.

We have identified proficiency in digital transformation, innovation, sustainability as vital for future workplace success in all curricular areas as well as for our graduates’ other roles as community members and citizens. In addition, we were able to identify leading-edge practices in each area where in-course learning activities could prepare students in all programs to add value in applied workplace projects.

“When digital transformation is done right, it’s like a caterpillar turning into a butterfly, but when done wrong, all you have is a really fast caterpillar.”

George Westerman
MIT Initiative on the Digital Economy

Digital Transformation is a challenge for workplaces across all sectors, and it is also a pressing issue in our lives outside of work, for example understanding and managing the impacts of social media and the personal data about us stored in digital networks. Higher education institutions around the world have developed rich models of *Digital Literacy*, the ability to carry out tasks using modern digital devices such as smartphones, computers, software and internet applications. However, *Digital Transformation* involves rethinking the nature of work tasks and organizational structures to optimize digital and human resources assigned to them. Brampton University has the opportunity to integrate innovative technologies into a new environment¹⁹ for teaching and learning, which immerses learners in experiences and reflection around ongoing digital transformation.

Workplace Innovation is a key element in responding to our economic, social and environmental challenges, and an area where Canada is known to lag behind other nations. While recent efforts within Ontario higher education have focused on capabilities for entrepreneurship, there is also growing recognition that we need a more innovation-capable workforce across organizational levels and roles (and in all workplace sectors).

Pioneering work in Europe has shown that ‘Human-Centred Workplace Innovation’ can be engaged to improve organizational performance – in all sectors – while at the same time leading to improvements in the quality of work life. There are promising initial efforts underway to develop this Workplace Innovation capability in higher education, using innovations in the teaching and learning environment for active learning.

Sustainability and the climate crisis is increasingly recognized as a priority for workplaces across sectors, and a major concern for all of us as citizens and community members. The need to reverse the rise in CO₂ emissions in order to achieve an 80% reduction by 2050 is just one example of how we will all be rethinking and reinventing our current practices within the economy. Every employee and citizen will be expected to engage with new work practices and lifestyles for a low carbon, socially just economy; every university will need to ensure that its graduates have the required skills, knowledge, experiences and mindsets. Brampton University can lead the way in conceiving, designing and implementing this new graduate attribute, to the benefit of the city and its current and future employers in manufacturing, clean technology, agri-foods, transport and logistics, and indeed every sector directly or indirectly affected by decarbonisation.

Emerging themes such as Sustainability and Digital Transformation may also be the focus of degree programs for specific professional capability. On the other hand, as cross-curricular graduate attribute the level of capability to be developed would target what every employee and citizen should know for work and life in the decades to come. At both program and graduate attribute levels, the ethical perspective for technological stewardship will be an important component, as defined in the text box from the Engineering Change Lab²⁰ (Engineers Without Borders Canada).

¹⁹ "Leading Digital Transformation in Higher Education: A Toolkit for Technology Leaders." Christine Miller. In *Technology Leadership for Innovation in Higher Education*. IGI Global, 2019.

²⁰ <https://www.engineeringchangelab.ca/>

Technological stewardship: behaviour that ensures technology is used to make the world a better place for all -- more equitable, inclusive, just, & sustainable.

ENGINEERING
CHANGE
LAB

2.2.2 (c) Talent Development through Innovative Partnership with Workplaces

Traditional universities developed around a linear model for capability development, in which a degree preceded entry into the workplace with occasional updates to expertise to follow. As we look to the future of work, this model must be rethought as the quotations below illustrate:

“In Workforce Development, we are moving from the pipeline model to the multilane freeway with multiple off/on ramps, laybys, break stops, etc”²¹.

“Career ladders are becoming career lattices...24% of workers under 34 have already worked in four industries, while 59% over 65 retired with three or less. The career lattice is characterized by constant skills learning and updating, steeper learning curves, and change management”²².

“The level of educational preparation for the workforce that worked in the 20th Century — adding more time to education early in life—does not seem sufficient in the 21st-Century economy. The new wave involves much more continual training throughout a person’s lifetime—to keep current in a career, to learn how to complement rising levels of automation, and to gain skills for new work. Workers will consume lifelong learning in short spurts when they need it, rather than in lengthy blocks of time as they do now when it often takes months or years to complete certificates and degrees.”²³

The Weave

Most learning happens outside of school. The future of learning is how to capture it, assess it, and credential it wherever it happens.

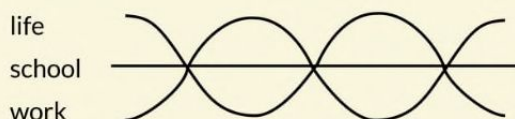


Figure 2.4. The Learning Weave

²¹ *Reimagining the Workforce Development System for the 21st Century and Beyond*. Melanie Zaber, Lynn Karoly and Katie Whipkey Rand Corporation Research Report. 2019.

²² *The Future of Work – Final Report*. Canada Beyond 150, Government of Canada, 2017.
<http://www.canadabeyond150.ca/reports/future-of-work.html> 2017

²³ Six “College Hacking” Trends to Watch in 2020. Kathleen deLaski and Tara Lifland. Education Design Lab weblog, Washington D.C. Jan 2, 2020.

As a new university designed explicitly for the future of work, Brampton University can address these challenges in the following ways:

- *Restructuring curriculum to emphasize self-directed learning in the workplace*
- *Rethinking traditional academic functions to integrate with continuing/professional education*
- *Streamlining relationship-building with employers and workplaces*

Restructuring Curriculum to Emphasize Self-Directed Learning in the Workplace

The reality in today's digital-first world is that we need to teach every generation how to learn, unlearn, and relearn – quickly – so they can transform the future of work, rather than be transformed by it.²⁴

Brampton University has the opportunity to build into its academic model the recognition that the great majority of learning takes place in the workplace. Learning in the academic context becomes the foundation and preparation for this continuing deep learning and employability. Lifelong learning skills and realistic learning-goal setting has to be purposefully taught to students.²⁵

The emerging use of Massive Open Online Course (MOOC) resources in on-campus university Teaching and Learning is one example of rethinking curriculum approaches to emphasize self-directed learning for the workplace. MOOCs as conceived by providers such as Coursera were originally seen as replacements for on-campus instruction to make traditional higher education more accessible. The very low completion rates for MOOC courses in this mode revealed a different need: workplace learners – often already highly educated – were signing up for MOOC courses but only completing the sections addressing the specific knowledge and skills they required. This led to very poor 'success' rates by traditional standards, even though the learning experience had been very successful when viewed from the learners' perspective.

As workplace learners and organizations have expanded their use of MOOCs, new models have arisen to integrate the availability of open resources in Massive Open Online Courses into academic programs. The resources are augmented with coaching on self-directed learning, the formation of local learning communities, team-based and project-based work, etc. Using MOOCs for their own needs prepares graduates for the future of learning at work.

Mini Case 2 on the next page – from Charles Sturt University in New South Wales, Australia – presents an example of how to leverage learning in the workplace, including online learning, for discipline-specific skills and knowledge within an undergraduate program. The initial 18 months on campus is focused on

²⁴ 6 Reasons Why Higher Education Needs to Be Disrupted. T. Chamorro-Premuzic and B. Frankiewicz, *Harvard Business Review Online*. Nov 19, 2019

²⁵ "Learning the life skill: the lifelong learning graduate attribute." Sadegh Kocheekseraii and Libby Osgood *Proceedings of the Canadian Engineering Education Association (CEEA)* (2017).

broad-based competencies and approaches to ‘learning-to-learn’ (and unlearn). The subsequent work-integrated learning terms integrate undergraduate students into workplace contexts for depth in their disciplinary area and one ‘application system.’ This is complemented by employability development through ongoing online learning and periodic on-campus learning, to extend capability in additional knowledge areas applicable in their work and additional (Figure 2.2 above).

Rethinking Academic Structures to Integrate with Continuing Professional Education

The simple fact is that our traditional...universities with their campus-based, semester-timed, credit-hour driven model of instructional delivery are not well-suited to educate post-traditional learners²⁶.

The previous paragraphs highlight how Brampton University can adapt workplace learning practices to optimize success in undergraduate programs. Rethinking in other areas will also be required in order to truly welcome workplace learners, as well as other non-traditional students for example traditional-age students with significant responsibilities such as part-time work schedules or dependents. Long before 2040, they will have become the ‘new majority’²⁷ in our programs. Established universities face significant barriers in responding to these needs.²⁸

The one structure of modern universities which has been more responsive to workplace and non-traditional learners is continuing professional education.²⁹ In most established universities, this area arose as a sideline to the central priority around degree programs, and indeed in many cases is still looked down upon by traditional academic departments. CPE activities typically have separate administrative structures, instructional staff, data systems and online ‘learner experience platforms’. Sadly there is almost no way for students using a MOOC resource in a degree course to interact with workplace learners using the same resources to earn a professional micro-credential, or for workplace learners to interact with research faculty for leading-edge knowledge in a new method or an emerging work domain.

Rethinking traditional academic structures to integrate with continuing professional education has a dual benefit with respect to restructuring curriculum with an emphasis self-directed learning in the workplace. Such a focus would also position Brampton University to play an exemplary role in responding to the new majority demographic.

²⁶ “Post-traditional learners and the transformation of postsecondary education: A manifesto for college leaders”. Louis Soares. Washington, DC: American Council on Education, 2013.

²⁷ *Academic Transformation: A Design Approach for the New Majority*. Eric Malm and Marguerite Weber, eds. Rowman & Littlefield, 2017.

²⁸ “Preparing a Traditional University for the 60-Year Curriculum”. https://evolution.com/revenue-streams/market_opportunities/preparing-a-traditional-university-for-the-60-year-curriculum/ Jan 16, 2020

²⁹ “Why Continuing Education is Leading Academic Innovation”. https://evolution.com/managing-institution/operations_efficiency/why-continuing-education-is-leading-academic-innovation/ Jan 16 2020.

Mini Case 2: Charles Sturt University's innovative Engineering Program (NSW, Australia)

Excerpted from Case study #2 in *The global state-of-the-art in Engineering Education*. Ruth Graham for the New Engineering Education Transformation initiative at Massachusetts Institute of Technology, 2018.

Charles Sturt University (CSU) is located in regional south-eastern Australia...and is rooted in a mission to “support our regions and the professions that sustain our regions.” ...One discipline for CSU that had proved difficult to “get off the ground” was engineering. The rationale for establishing an engineering program at CSU was widely acknowledged, with growing calls from industry and local councils to increase the regional talent pool of skilled engineering professionals. However, concerns remained about the viability of a new engineering program within the CSU regional setting: “...we would be the 37th engineering school in Australia. We had no reputation in engineering... The big question is why would people want to come to us?”

The conclusion reached was that if CSU was to establish an engineering program, it must offer prospective students “something completely unique, something they could not get anywhere else.” In the four years that followed, the university's first engineering school was established – CSU Engineering – and a diverse team was assembled to design and build a distinctive new engineering undergraduate program.

What was created was a five-and-a half-year joint bachelor/master program in Civil Systems Engineering that was launched in February 2016. Its initial student intake number would be small; the first cohort joining CSU Engineering was just 28 students. The curriculum is structured in two distinct phases. The first phase – comprising the first 18 months of the program – is based on campus and structured around a series of project-based design challenges that immerse students in the broader societal context of engineering.

The second phase – comprising the last four years of the program – is based off-campus and structured around a sequence of four paid 12-month work placements. CSU Engineering's educational approach offers three distinctive features:

- **a professional, work-ready environment:** the close industry partnerships that lie at the heart of the CSU Engineering program were noted to be “engrained in the culture and the expectations on students” enrolled in the program. This culture is reflected in the curricular “focus on practical engineering and preparing people for the workplace,” where students are able “to work on real engineering problems and are treated like professionals” from the point of entry to the program.
- **underpinned by self-directed learning:** the program takes a student-centered, experiential approach that emphasizes self-directed learning. Students are confronted with a series of on-campus challenges and work-based problems and are expected to identify, master and apply the knowledge and skills necessary to tackle them, as well as reflect upon their learning. Students are also encouraged to direct and manage their own learning goals.
- **embedding flexible, state of the art online learning:** arguably the most distinctive element of the CSU Engineering education is its approach to online learning. Almost all ‘technical engineering content’ – including both knowledge acquisition and skills development – is disaggregated into a set of ‘topics’ that are delivered online for students to access independently, when and how they wish.

CSU Engineering thus brings together many of the features that the thought leaders in Phase 1 of the study identified as likely to distinguish the world's leading engineering programs in the decades to come. However, when asked to identify the characteristics that set CSU Engineering apart on a global stage, many external observers pointed to its blend of face-to-face project-based learning with student-directed online learning: “the first 18 months is exceptional, it embodies all aspects of best practice that I have seen.” One observer characterized CSU Engineering's online platform for flexible “just in time” learning as “the most innovative thing I have ever seen in pedagogy.”

Streamlining Relationship-Building with Workplaces

The benefits of our proposed Teaching and Learning Strategy extend into the university's roles in research and knowledge mobilization. One Canadian higher education expert³⁰ recently summarized the challenge:

"Universities tend to put "outreach to industry" in three buckets:

- *can we find businesses to sit on our program advisory boards and hire our graduates?*
- *can we find businesses to partner with/fund our research?*
- *can we find businesses to give us money for broader non-research purposes?*

But the people in charge of these three buckets all report to different leads (usually the Provost, VP Research and VP Advancement) and they aren't incentivized to work together. The branch of the university a business gets hold of is often random luck...It's very to end up dealing with the "wrong" part of an institution and having a bad experience..."

The same Canadian expert also sketches one possible approach to illustrate how our strategy would pay dividends:

"Solutions? Well, the obvious one from the university side is a Concierge service. At a major university, what would probably make sense is a small office of 5-6 people, each with responsibility for a specific set of industries, to co-ordinate an institution's outreach and response to business. They would get to know the businesses that come through the door, understand their motivations, think about how to deepen these to mutual benefit over the long-term, and – above all – help them clarify their objectives and steer them to the right people."

We would want to expand the focus for any such solution from business to all workplace sectors – Public, Social/Community, SME, Labour – to fully address our complementary roles of preparing learners of all types for the future of work and enabling knowledge mobilization to meet economic, social/community and environmental challenges. There are other solution approaches to consider, e.g., the many variants in European university approaches to their 'third mission'³¹ of collaborating to address regional challenges.

2.2.2 (d) Inclusion of New Canadians

In exploring this opportunity for Brampton University, we conducted a search of other Ontario institutions to identify if any had made this area a serious strategic priority for teaching and learning. We also carried out a search for relevant information to determine if there was a critical mass of evidence to suggest that Brampton University could differentiate itself and excel in this area. The

³⁰ <http://higheredstrategy.com/blog/better-university-business-partnerships/>

³¹ <https://thirdmission.univie.ac.at/en/> ; <https://eua.eu/resources/expert-voices/88:universities-and-innovation-beyond-the-third-mission.html>

answer to the first question was negative. The answer to the second question was a tentative yes.³² We are therefore including this component into the academic strategy for Brampton University.

2.2.3. Key Success Factors for the Longer Term

As outlined earlier the strategic choices identified have to be operationalized through systematic innovation in curriculum design and the operations of the University. If strategic strengths could be achieved with established structures/processes/practices, then the established universities would not have to overcome organizational inertia in responding to these new challenges.

As the Brampton University Teaching and Learning Strategy evolves, new approaches may emerge elsewhere that improve on the examples cited above. However we see five areas of strategic focus for Brampton University's curriculum and institutional design processes in order for it to maintain leadership:

- Embedding emerging 'Work and Life' themes within the university environment
- Embedding contemporary work practices in teaching and learning
- Integrating curricular and co-curricular learning on broad-based capabilities
- Integrating university structures for traditional and workplace-based learners
- Other approaches for integrating workplace learning

On the latter point, Mini Case 2 illustrated some of the new thinking about integrating workplace into academic programs, which go beyond the traditional definitions of work-integrated learning and other approaches for integrating workplace learning into transformative academic programs.³³

There are other emerging opportunities for innovation that Brampton University can leverage in order to remain cutting edge. Two of these are described overleaf:

³² See for example: "Immigrant attraction through place branding? Evidence of city-level effectiveness from Canada's London." Evan Cleave and Godwin Arku. *Cities* 97 (2020): 102502; "Immigration System, Labor Market Structures, and Overeducation of High-Skilled Immigrants in the United States and Canada." Yao Lu and Feng Hou. *International Migration Review* (2020); "Post-Secondary Education and the Full Integration of Government-Assisted Refugees in Canada: A Direction for Program Innovation". Donald Reddick and Lisa Sadler. Chapter in *Language, Teaching, and Pedagogy for Refugee Education (Innovations in Higher Education Teaching and Learning, Vol. 15)*, Enakshi Sengupta and Patrick Blessinger (Ed.) Emerald Publishing Limited. 2019; "Immigrants and Workplace Training: Evidence from Canadian Linked Employer Employee Data". Benoit Dostie and Mohsen Javdani. IZA Discussion Papers, No. 12511, Institute of Labor Economics (IZA), Bonn. 2019; "Why do STEM immigrants do better in one country than another?" Garnett Picot and Feng Hou. *IZA World of Labor* 2019.

³³ For example: https://www.cewilcanada.ca/_Library/2019/WIL-Def-ENGLISH_-_Updated_2019.pdf

- *Apprenticeship Degrees*: adapting the traditional apprenticeship model to degree programs was initiated in English higher education in 2015 and has proved very popular with students and employers (although exhibiting the typical innovation cycle of iterative improvement). With potential partners like the Open University (UK), Brampton University can apply insights and results from the extensive study³⁴ of this development for adaptation to our Ontario context.
- DevDegree³⁵ is an example of a recent successful innovation in Ontario higher education for Talent Development in Partnership with workplaces.

We now turn to how we intend to pursue our programming strategy with a clear emphasis on growth sectors of the future, as informed by Ontario and Federal Government analysis.

2.3 Program Strategy

2.3.1 Introduction

A significant amount of outreach was undertaken to Ontario and other institutions in Canada and internationally to explore opportunities for partnerships that would contribute to our Teaching and Learning Strategy. Academic partnerships will be particularly important in the early years of Brampton University's existence when it will be simpler to fast-track programs that are needed for Brampton's population and employers (present and future) that have already proven themselves effective in other jurisdictions (especially in Ontario). Based on the information gathered through the institutional outreach and initial interest expressed by potential partners, the City has identified program clusters detailed in section 2.3.2.

2.3.2 Recommendations for Program Clusters

In September 2018, the Government of Canada released its report on the deliberations of its national Economic Strategy Tables. These tables were based on "a new model for industry-government collaboration" and were "part of the Government of Canada's Innovation and Skills Plan to support economic growth in six key sectors: advanced manufacturing, agri-food, clean technology, digital industries, health/bio-sciences and resources of the future".

Given our proposed Teaching and Learning Strategy, the mandate for Brampton University, the labour market and economic case, which includes outreach to influential local employers (Chapter 3) and the clearly expressed desire of the people of Brampton for local provision of professional and STEM/health

³⁴ For example: "Are we nearly there yet? The journey of Higher Degree Apprenticeships". In *Real World Learning*. Palgrave Macmillan Ltd, 2020. "Apprenticeships in England." In *The Success of Apprenticeships: Views of Stakeholders on Training and Learning vol. 3*. Wiley, 2020). Note that we have adapted the term used in England – "Degree Apprenticeships" – as in our judgment that phrase suggest an adaptation of Degree programs to the Apprenticeship model, rather than an adaptation of Apprenticeships to the Degree model.

³⁵ <https://devdegree.ca/>

related education (see Chapter 8), and the serious opportunities that are emerging as the world responds to technological and environmental change (as reflected in the work of the Government of Canada strategy tables), we are proposing to establish the following areas of program emphasis for Brampton University and the associated Brampton University System of partnerships.

In each case we have identified partnerships that will advance the Brampton University vision and its visible association with high quality education at both undergraduate and graduate levels. Below we set out some of the potential participants in each case.

Business Management, Entrepreneurship and Legal Education Cluster

Institutions from Ontario and around the world would play a role in providing a vast variety of programming including IP, QA and Examination Services at the undergraduate level through a 'Teaching Centre' model focused on Business, Banking, Finance and Data Science. There is a role to be played at the Exec MBA level, and Executive Delivery of Legal-related Education at the Masters level. There is also a potential to have support on Data Science and related topics, Operations and Supply Chain Management, Real Estate, Finance (including online options), Marketing, Tourism, Social Entrepreneurship and Indigenous Leadership.

Creative and Digital Industries Cluster

Areas of programming that can be supported by Ontario and global academic institutions that offer digital technology in support of the Arts include Fashion, Fashion Marketing, Urban Design and Architecture at both the undergraduate and graduate levels. Opportunities for new programming are expected to be developed by Brampton University.

Advanced Manufacturing and Clean Technology Cluster

Areas of programming that can be supported by existing Ontario and global academic institutions include Masters level executive delivery of Engineering and Clean Technology, Automation and Clean Technology and Artificial Intelligence.

Health and Biosciences Cluster (including Medicine-related Programs)

Areas of programming that can be supported by existing Ontario and global academic institutions in Executive Delivery of Medicine-related Education such as Medical and Health Sciences and Pharmaceutical Sciences.

Social Well-Being Cluster

Opportunities for new programming are expected to be developed by Brampton University and opportunities for support from existing academic institutions will be explored.

Agri-Food Cluster

Areas of programming such as Agritech will be explored through existing Ontario and global academic institutions.

Resource Management Cluster

Areas of programming that can be supported by existing Ontario and global academic institutions include Applied Sciences for Resource Management, Clean Energy, Climate Change, Sustainability, Ecology and at a Masters level, Environmental Pollution and Environmental Policy. Opportunities for new programming would also be developed by Brampton University.

2.4 Quality Assurance Strategy

2.4.1 Introduction

As noted above, Brampton University wishes to establish itself as a dynamic new 21st century university in Ontario, serving the needs of both students and the wider Brampton community.

Brampton University aspires to deliver programming that reflects:

- In-Demand capabilities plus 'employability' for the future of work
- Emerging 'Work and Life' Themes: Digital Transformation, Innovation and Sustainability
- Talent development in partnership with employers and workplaces
- Inclusion of New Canadians

This will in turn drive the following design parameters for the institution, its graduates and its programming

- The most employable and future-focused graduates in Canada
- Totally flexible and 24/7/365 availability of education (classroom, on-line and blended), so students can stay in full time work or caring responsibilities if required
- Active integration with existing post-secondary education provision
- Active support for economic development, immigration and inward direct investment
- Active support for deep community and cultural connectivity: libraries, theatres, entertainment venues, sports facilities etc
- Active support for entrepreneurial connectivity with entrepreneurial start-up space everywhere and the development of a science and innovation park

A critical success factor in achieving the ambition is a comprehensive and rigorous quality assurance strategy. Because Brampton University has a unique focus on both students and the wider Brampton community, the quality assurance strategy will need to reflect this. Two general principles will underpin Brampton University's approach to quality assurance:

- Continuous improvement of the student experience will be at the core of all quality assurance and enhancement activities.
- All members of staff will take personal responsibility for the quality of their contribution to the student experience.

The student experience, and student outcomes, will be a function of the quality of academic programs, the quality of delivery (teaching, learning and assessment), and the success with which Brampton University establishes itself as a key asset for the Brampton community.

The Brampton University Quality Framework will incorporate the following key components:

- Approval – articulation of the approvals process for any new module, course or qualification (both credit and non-credit bearing)
- Annual Review processes
- Periodic Reviews
- External Examiners and independent review
- Student Representation and Feedback

Furthermore, Brampton will also include *employer representation and feedback* as the sixth component of its Quality Framework.

Brampton University's academic programming will evolve over three distinct phases, culminating with Brampton University seeking to award its own degrees from around 2026:

Phase 1:

Brampton University will host preferred universities who will deliver their programs directly (for example, through a recognised Teaching Centre) or under some form of licensing, validation and/or other quality assurance system.

Phase 2:

Further partnerships are added. Brampton University begins to develop its own programs and seeks to award its own degrees based on its distinct vision of the future and its growing intellectual and human capital. Brampton University may also elect to offer joint degrees with partners or it may simply run partnership degrees in parallel with its own degrees.

Phase 3:

Partnerships will continue and grow. Brampton University will continue to develop its own programs and award its own degrees, this activity extending to up to 70% of total provision over time.

Ultimately Brampton University will produce and deliver its own programs consistent with the teaching and learning, and academic program strategies outlined in earlier sections. As noted above, to deliver on Brampton's 2040 vision, programs will focus on:

- In-Demand capabilities plus 'employability' for the future of work
- Emerging 'Work and Life' Themes: Digital Transformation, Innovation and Sustainability
- Talent development in partnership with employers and workplaces
- Inclusion of New Canadians

These considerations will drive the development of Brampton University's overarching academic strategy. In the first instance Brampton University will form strategic partnerships with both Ontario-based and non-Ontario-based international institutions (the latter focused on specific undergraduate provision, but mostly Masters and Executive-style delivery). Its first programs therefore will be incoming university programs that are offered in partnership with Brampton University through the Brampton University System, or through Brampton University as a recognised Teaching Centre.

Programs offered will reflect the focal points described in earlier sections. Delivery modes will include:

Mode of Delivery:	Undergraduate	Graduate
Face to Face (F2F)	✓	✓
Blended	✓	✓
Online	✓	✓

2.4.2 The Ontario Context

There are two routes for the approval of new programs offered in Ontario. The Quality Council deals with the quality of programs offered by the 21 Ontario Universities which are members of the Council of Ontario Universities (COU). It has oversight of new programs, cyclical program reviews, and audits. These programs do not need to go for Ministerial consent because of the individual University Acts. Since the ambition is for Brampton University to become a member of the COU, an understanding of the requirements of the Quality Assurance Framework is important.

Where partners already have program approvals via the Quality Council and where they are simply expanding into Brampton, we will expect no issues with respect to quality approvals, simply the agreement of the Province of Ontario to provide 'corridor funding' for the students benefiting from these programs. Where Ontario University partners do not have Quality Council approval we will expect them to secure it. Where we need to involve partners outside Ontario we shall be concerned with the quality assurance route for new programs offered by institutions that are not members of the Council of Ontario Universities (COU), and which therefore require Ministerial consent. The Postsecondary Education Quality Assessment Board (PEQAB), makes recommendations to the Minister of Colleges and Universities of Ontario on applications for ministerial consent under the terms of the Post-secondary Education Choice and Excellence Act, 2000. The PEQAB deals with the degree programs of any institution which is not a COU member (such as Ontario Colleges offering degrees, private institutions or out-of-province institutions offering degrees (usually on a hybrid/distance education model) into Ontario. Until it is a full member of the Council of Ontario Universities Brampton University may seek Ministerial consent for its preliminary incoming programs via the 'private institutions' route.³⁶

³⁶ http://www.pegab.ca/Publications/Handbooks%20Guidelines/MANUAL_PRIVATES%20October2019.pdf

2.4.3 The Quality Assurance Framework

The framework³⁷ was developed by the Ontario Council of Academic Vice-Presidents (OCAV). We are confident that the undergraduate and degree level expectations as articulated in the framework will accommodate Brampton University's key focal points as outlined above.

Institutions design and implement their own Institutional Quality Assurance Process (IQAP) that is consistent not just with their own mission statements and their university Degree Level Expectations, but also with the protocols of the Quality Assurance Framework. The IQAPs are at the core of the quality assurance process.

There are four components to the Framework:

1. The **Protocol for New Program Approvals** This applies to new undergraduate and graduate for-credit programs, which are then reviewed by the Appraisal Committee of the Quality Council. This Council has the authority to approve or decline new program proposals.
2. The **Protocol for Expedited Approvals** Where changes are made to existing programs, these must be approved by each institution via its IQAP (itself subject to Quality Council ratification) and reported annually to the Quality Council. Institutions may request that the Quality Council reviews a proposal for Major Modifications, in which case an Expedited Approval process would apply.
3. The **Protocol for the Cyclical Review of Existing Programs** Its focus is quality assurance and quality enhancement of existing for-credit programs.
4. Finally, **the Audit Process** is conducted through a panel of auditors that reports to the Audit Committee of the Quality Council. The panel examines each institution's compliance with its own Institutional Quality Assurance Process for the Cyclical Review of Existing Programs, as ratified by the Quality Council. The Quality Council has the authority to approve or not approve the auditors' report.

Institutions that are members of the COU are bound by this framework. Ultimately, the intention is that Brampton University will become a member of the COU and will work within this framework.

For all inter-institutional programs in which all partners are institutions within Ontario, the Quality Council's standard New Program Approval and Cyclical Program Review Processes will apply to all elements of programs, irrespective of which partner offers them (including Ontario Colleges of Applied Arts and Technology and Institutes of Technology and Advanced Learning).

The categories of inter-institutional programs are:

1. *Conjoint Degree Program: A program of study, offered by a postsecondary institution that is affiliated, federated or collaborating with a university, which is approved by the university's*

³⁷ <https://oucqa.ca/wp-content/uploads/2019/10/Quality-Assurance-Framework-and-Guide.pdf>

Senate or equivalent body, and for which a single degree document signed by both institutions is awarded.

2. *Cotutelle*: A customized program of doctoral study developed jointly by two institutions for an individual student in which the requirements of each university's doctoral programs are upheld, but the student working with supervisors at each institution prepares a single thesis which is then examined by a committee whose members are drawn from both institutions. The student is awarded two degree documents though there is a notation on the transcripts indicating that the student completed his or her thesis under cotutelle³⁸ arrangements. This is less likely to apply to Brampton University's initial programming phases.
3. *Dual Credential Program*: A program of study offered by two or more universities or by a university and a college or institute, including Institutes of Technology and Advanced Learning, in which successful completion of the requirements is confirmed by a separate and different degree/diploma document being awarded by each of the participating institutions.
4. *Joint Degree Program*: A program of study offered by two or more universities or by a university and a college or institute, including an Institute of Technology and Advanced Learning, in which successful completion of the requirements is confirmed by a single degree document.

For joint programs in which some partners are institutions outside Ontario, the elements of the programs contributed by the out-of-province partner will be subject to the quality assurance processes in their respective jurisdictions. The Quality Council maintains a directory of institutions whose post-secondary assurance processes are recognized and accepted as being comparable to those of the Quality Council. In the case of institutions that are not yet included in the directory, the Quality Council will determine, on a case-by-case basis, the appropriate action to be taken on quality assurance if the collaboration is to be permitted to proceed. This scenario will apply for much of Brampton University's early phases of programming.

The Quality Assurance Framework also sets out the Degree Level Expectations established by OCAV. These act as Ontario universities' academic standards and identify the knowledge, skills competencies that must be delivered by qualifications, in much the same way that the FHEQ and FGHEIS set out the minimum expectations necessary for awarding bachelor's degrees with honours in the UK and Scotland respectively.³⁹ For ease of reference, the key expectations are set out in the table below.

Undergraduate degree	Graduate degree (MSc/PhD)
Depth and breadth of knowledge	Depth and breadth of knowledge
Knowledge of methodologies	Research and scholarship
Application of knowledge	Level of application of knowledge

³⁸ In the case of the Cotutelle, since this arrangement relates to an existing, approved program, no separate appraisal or review processes will apply.

³⁹ <https://www.qaa.ac.uk/quality-code/qualifications-and-credit-frameworks#>

Communication skills	Level of communications skills
Awareness of limits of knowledge	Awareness of limits of knowledge
Autonomy and professional capacity	Professional capacity/autonomy

These reflect progressive levels of intellectual and creative development associated with a given level of study. They may be expressed in subject-specific or in generic terms. Graduates at specified degree levels (e.g., BA, MSc) are expected to demonstrate these competencies. Each university may adapt and describe the degree level expectations that will apply within its own institution. Likewise, academic units will describe their institution's expectations. The existing framework then is designed to flex with the requirements of the respective member institutions.

2.4.4 Ministerial Consent – Process

Ministerial consent is required for the approval of programs that are not offered by an institution that is a member of the COU. This will apply to Phase 1 of Brampton University's academic programming, where programs will be offered under a range of carefully regulated agreements, including via a recognised Teaching Centre. Programs may be submitted individually or clustered together as a group of related programs. At present, the application fee is \$5,000 per application. For cluster/bundled applications the fee is \$10,000 (this covers up to four degree programs) and \$15,000 for an application of five or more programs.

The review process includes the following two discrete stages:

1. Readiness review

This is an optional and free service, through which feedback and recommendations are made on an outline or draft submission.

2. New programs and program renewals

New programs and regular program renewals undergo a full review by PEQAB. The Board receives the application, posts it on its web site, gives a deadline for public comment, and convenes an Organization Review Panel and an External Expert Panel, as appropriate and with input from the applicant. The applicant is then informed of the composition of the Panel(s) and is advised of any site visits. This has similarities with the program validation process in the UK.

Overview of Consent Process

Step 1. Ministry

- determines whether the application falls under the Act

Step 2. Minister

- decides, for each application that falls under the Act, whether and how to refer it to PEQAB

Step 3. PEQAB Secretariat

- reviews the application
- identifies potential External Expert Review & Organization Review Panel members
- posts the application on the PEQAB website

Step 4. Board (PEQAB)

- reviews the application
- determines review strategy
- appoints Panel(s)

Step 5. Expert Panels

- review the submission against PEQAB Standards and benchmarks
- submit a written Report to PEQAB

Step 6. PEQAB Secretariat

- provides the Reports to the applicant for response
- receives the applicant's responses to the Reports

Step 7. Board (PEQAB)

- reviews the application, the Panel Reports, the applicant's responses and commitments made during the review process, and any additional information required to formulate a recommendation
- submits a recommendation to the Minister and shares the PEQAB Final Report with the applicant and the Review Panels
- posts the recommendation date on its website

Step 8. Ministry

- ensures all fees have been paid in full

Step 9. Minister

- considers PEQAB's recommendation and any public policy or financial issues that may flow from the granting of a consent
- communicates the decision about consent to the applicant

Following the Minister's communication of the decision to the applicant, the Board's recommendation and the Minister's decision are posted on the PEQAB website. A key consideration here is the duration of the process. Timelines will be needed to ensure that all Brampton University's programming proceeds through the requisite approvals prior to preparation for delivery.

i. Ministerial Consent – Requirements

Qualifications offered must comply with the Ontario Qualifications Framework (OQF), as outlined in Appendix 1. The framework sets out the qualifications descriptors and standards for all qualifications from a certificate to a doctorate.

For the purposes of comparison, 1 Ontario credit = 4 UK credits = 2 European Credit Transfer and Accumulation System (ECTS).

Where a partial degree is offered, the requirements that apply are as set out in the table below:

Bachelor Degree	Graduate or Professional Degree
at least 25% (usually 30 full credits) of the program requirements	no less than 50% of the course requirements in terms of content and outcomes of the program as it is normally offered in public or accredited private institutions
	any program requirements, beyond the course work, which is standard in similar programs offered by public or accredited private institutions (e.g., a thesis and/or comprehensive examination)
those elements of a program that are designed to provide the student with the most critical advanced knowledge and skill requirements of the discipline at the relevant degree level—that is, the terminal rather than the introductory or medial segments of the program.	

Submissions to PEQAB must heed the benchmark requirements as follows:

- (i) The program meets or exceeds the Degree Level Standard and the applicant demonstrates how the program meets the Standard.
- (ii) Assessment of individual student work in the terminal stage of the program that reflects exemplary, average, and minimally acceptable performance demonstrates that the Degree Level Standard has been achieved.

The documentation submitted for new programs and for renewals must also do the following:

- (i) Show where all six elements of the Degree Level Standard will be addressed by the proposed courses (new programs only)
- (ii) Show, with some examples from the courses and other supporting documentation, how the program meets the knowledge and skills expectations detailed under the six elements of the relevant Degree Level Standard.

- (iii) Demonstrate student achievement through the submission of samples of student work that reflect exemplary, average, and minimally acceptable performance from the terminal years of the degree program, (as per PEQAB's current Guidelines for Compiling, Selecting and Distributing Samples of Student Work)

OR - results from recognised, comparable or scalable evaluations of critical thinking, problem-solving and communication skills of students graduating from the program

OR - results of other learning outcomes assessment models/management systems, as proposed by the institution.

In practice then, this means that in addition to ensuring consistency with Brampton University's teaching and learning and academic programming strategies, a mapping exercise will need to be carried out for each candidate incoming program. This exercise will map descriptors and standards between the different frameworks, and articulate learning outcomes in terms of Brampton University's four key teaching and learning focal points. Assessments will also need to be checked to ensure that they deliver the appropriate learning outcomes, and to the requisite level.

ii. Admissions

The admissions policy to a program of study must be specified in the submission to PEQAB, and must accord with the following:

1. Admission requirements are appropriate to the learning outcome goals of the program and areas specified on the Ontario Qualifications Framework (OQF).
2. Admission to a bachelor program normally requires at a minimum an Ontario Secondary School Diploma or equivalent, six university or university/college courses at the Grade 12 level, a minimum average of 65%, and any additional requirements.
3. Mature students have demonstrated academic abilities equivalent to those of Ontario high school graduates, verified by successful completion of courses at the postsecondary level or an entrance examination.
4. Admission to a master's program normally requires a recognized undergraduate degree equivalent to the four-year honours degree standard identified in the PEQAB Degree Level Standard and the Ontario Qualifications Framework, in an appropriate specialization, or relevant bridging studies, with a high level of performance in the prerequisite studies.
5. Admission to a doctoral program normally requires a recognized master's degree in an appropriate specialization, or relevant bridging studies, with a high level of performance in the prerequisite studies.

Incoming programs then will need to be assessed to ensure that admissions criteria (at both undergraduate and graduate level) appropriate to Ontario are identified.

iii. Program Content and Delivery

The Board will seek assurances around the content and delivery of programs submitted for Ministerial approval. Programs will be scrutinised to ensure that they offer current knowledge in the field of sufficient rigour, breadth, and depth to achieve the knowledge and skills identified in the Degree Level Standard. Where applicable, the curriculum should reflect appropriate levels of Ontario and Canadian content. This may mean for some incoming programs that some versioning of materials is required (with requisite copyright clearances sought, where applicable). Learning outcomes in the subjects/courses will also need to be scrutinised to ensure that they enable graduates to meet or exceed the requirements

- a) for graduates from similar programs in Ontario and other jurisdictions
- b) of the field(s) of study and/or practice
- c) of any relevant professional or accrediting body.

In the case of undergraduate programs, non-core courses are considered important in the Ontario context. These provide

- a) knowledge in at least two of the following outside the core: i) humanities, ii) sciences, iii) social sciences, iv) global cultures (including Indigenous cultures), v) mathematics
- b) more than introductory knowledge of the distinctive assumptions and modes of analysis of a discipline outside the core fields of study.

In undergraduate programs, the balance of core and non-core/breadth courses is normally achieved as follows:

- a) 20% of the program hours are in non-core courses, which can be any degree level courses outside of the core
- b) at least one non-core course is an elective, freely chosen by the student.

Exceptions to this requirement may be permitted, which allows for an element of flexibility. For instance, where an accrediting body mandates course content, it may not be feasible to include non-core courses.

The Board will seek assurances that the program structure and delivery methods support achievement of the expected and actual learning outcomes. They will expect to see evidence that student workload is appropriately planned, that assignments can deliver the intended learning outcomes, and that students have been given an opportunity to input into the program content and delivery.

For any e-learning, blended learning and distance learning components, the Board will seek assurances that the organization has in place:

- a) appropriate policies and procedures to address copyright and intellectual property issues (e.g., digital rights management and the use of object learning repositories)

b) appropriate safeguards to assure the authentication of student identity and the integrity of student work

c) policies and procedures to assure the verification of student identity for coursework and examinations, and for the control of examinations, including but not limited to security, time limits, and the selection of proctors/invigilators.

iv. Faculty Qualifications

Programs must be delivered by appropriately qualified staff.

In the Ontario context, for *undergraduate programs* this means that all faculty teaching in the professional or main field of study (core), acting as thesis supervisors, members of examining committees, or teaching non-core courses

a) have, where relevant, professional credentials and related work experience

b) hold an academic credential at least one degree higher than that offered by the program in the field or in a closely related field/discipline

c) engage in a level of scholarship, research, or creative activity sufficient to ensure their currency in the field

d) are adequately trained for the delivery mode.

In addition, at least 50% of the students' experience in the professional or main field of study and in the non-core areas is in courses taught by a faculty member holding the terminal academic credential in the field or in a closely related field/discipline. By 'terminal academic credential' is usually meant a doctorate.

Faculty Qualification requirements for *Graduate Programs*:

- a) At least 80% of the students' experience in the program is in courses taught by a faculty member holding the terminal academic credential in the field or in a closely related field/discipline.
- b) All faculty acting as thesis/dissertation supervisors and/or as members of examining committees hold the terminal academic credential in the field or in a closely related field/discipline.
- c) Faculty members have substantial records of scholarly contributions to the field/discipline and demonstrate their ongoing contribution to the advancement of the field/discipline through peer-reviewed research/scholarship, exhibitions, or other professional activity

v. The Teaching Centre Model

To secure some of the most prestigious programs globally that are consistent with the overarching academic strategy, Brampton University will seek to offer certain programs via a Teaching Centre approach. Students taught in this way will be awarded a qualification by the originating university, not

by Brampton University. Brampton University will therefore seek to be awarded recognised teaching centre status by the host institution.

In the case of the University of London, for instance, the criteria that must be met in order to achieve recognised teaching centre status are clearly set out in their documentation.⁴⁰ These are exacting criteria and largely compatible with the requirements for ministerial consent. There is explicit acknowledgement also that any Teaching Centre would necessarily have to:

- (i) Comply with relevant local specific access policies and regulations;
- (ii) Comply with relevant local specific access policies and regulations.

2.5 Summary and Recommendations

Consistent with the analysis above, we are proposing that both independently and in partnership with other institutions in the proposed Brampton University System, Brampton University will establish key strengths in the following areas:

- In-Demand capabilities plus 'employability' for the future of work
- Emerging 'Work and Life' Themes: Digital Transformation, Innovation and Sustainability
- Talent development in partnership with employers and workplaces
- Inclusion of New Canadians

This will reinforce the design principles for programming which have been consulted upon and endorsed by citizens, employers and other stakeholders in Brampton with respect to outcomes for students, the style and accessibility of learning, and integration with the City and its employers (current and future):

- The most employable and future-focused graduates in Canada
- Totally flexible and 24/7/365 availability of education (classroom, on-line and blended), so students can stay in full time work if required
- Active integration with existing post-secondary education provision (including colleges)
- Active support for economic development, immigration and inward direct investment
- Active support for deep community and cultural connectivity: libraries, theatres, entertainment venues, sports facilities etc
- Active support for entrepreneurial connectivity with entrepreneurial start-up space everywhere and the development of a science and innovation park

We have established how these foundational principles may be manifested through academic programs offered by Brampton University and its partners through the Brampton University System. And we have identified Ontario partners and non-Ontario partners (including a wide array of the world's leading

⁴⁰ <https://london.ac.uk/sites/default/files/governance/TCRF-criteria.pdf>

universities in Canada, the UK, Australia and New Zealand) who may provide programming consistent with the employment opportunities of the future in a number of key growth sectors, as identified by the Province of Ontario and the Government of Canada.

We have also set out our Quality Assurance strategy to ensure that all programs offered by Brampton University meet either the requirements of the Ontario Quality Council or the Postsecondary Education Quality Assessment Board (for programs originating outside Ontario).

We therefore recommend:

- 1) Endorsement of the Teaching and Learning Strategy by the Ministry of Colleges and Universities as a bold approach to significantly enhancing the employability of graduates and the meeting of clearly expressed labour market needs and aspirations by employers and citizens in Brampton.
- 2) Endorsement by the Ministry of Colleges and Universities of the principle of establishing a Brampton University System embracing a mix of Ontario partnerships and non-Ontario partnerships being established in service of maximising the life chances of Brampton and Ontario students
- 3) Endorsement of the Brampton University Quality Assurance strategy by the Ministry of Colleges and Universities as being consistent with a commitment to provincial, national and international excellence in program design and delivery.