

April 28, 2025

## **Micro-Credential Framework at Carleton University**

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### **1. What is a Micro-Credential?**

Micro-credentials are distinct from courses offered through traditional certificate, diploma, or degree programs in so far as they: a) are shorter than traditional courses; b) assess a specific or discrete competency or skill; c) respond to employer or employment-related needs and gaps in the labour market in real time; and d) can be offered by post-secondary institutions in collaboration with public or private industry partners (see Gooch et al., 2022). Micro-credentials do not need to operate within the traditional academic calendar or follow semester registration and enrollment. The short duration and responsiveness to labour market trends mean micro-credentials can and should be developed and delivered much faster than traditional course offerings and offered multiple times throughout the academic year if necessary. Micro-credentials are one of the most recent examples of “alternative credentials” that are part of the growth of life-long learning initiatives and non-traditional educational programming.

In Ontario, micro-credentials are defined as short courses with between 5-300 hours of instruction, to be completed within 11 weeks (maximum). Hybrid or online delivery is recommended for maximum learner flexibility, but not required. Micro-credentials are quicker, more targeted, and more flexible than traditional pathways to certification and present an opportunity to accommodate a wider range of learners, and an avenue for lifelong learning.

A recent study of post-undergraduate Canadians found that the cost, institution reputation, and external connection to employers were the factors most likely to influence someone’s decision to sign up for a micro-credential of interest. In terms of micro-credential format and duration, online delivery was preferred because of the flexibility it provides, and respondents preferred programs under fifty hours. Programs with excellent reputations or clear explicit connections to employers were able to maintain high shares of preference with higher program costs (Kennedy-Barrows, 2025).<sup>2</sup>

### **2. Demand for Micro-Credentials**

Micro-credentials have been positioned as a response to the realities of a changing labour market in which employees are required to re-skill and up-skill to remain competitive. Micro-credentials are quicker, more targeted, and more flexible and present an opportunity to accommodate a wider range of learners, and an avenue for lifelong learning (Organisation for Economic Co-operation and Development, 2023, p. 3). Current data on the demand for micro-credentials in Canada is limited. Increased offerings, identification of skills and competencies that are relevant to the current job market, and improved visibility and public information about micro-credentials are likely to increase demand. In a recent study of Canadian post-graduates only one in three respondents had prior knowledge of micro-credentials (Kennedy-Barrows, 2025).

When designing micro-credentials, it is important to keep in mind that current post-students are not the primary demographic. In Lauren Kennedy-Barrow’s study of post-graduate Canadians

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<sup>2</sup> For more background on micro-credentials and the current micro-credential landscape in Ontario please see Appendix.

she found that those most likely to sign up for a micro-credential were 35-44 years old, held a post-second degree or diploma, and were earning less than \$100 000. Those least likely to sign up for micro-credentials were 55-66, earning less than \$100 000, and largely unfamiliar with micro-credentials (2025).

Micro-credentials introduce an entirely new learner to Carleton, as they can offer opportunities for post-graduates looking to a) re-skill to meet the demands of a changing job market; b) upgrade current skills to maintain or advance in their current careers; c) add new skills to try and successfully enter the job market; d) engage with university-level curriculum prior to enrolling in an undergraduate program; e) advance or supplement graduate-level skills pre or post graduate degree. Advocates of micro-credentials view them as innovative and modular response to a highly educated but changing labour force. E-Campus Ontario suggests that “micro-credentials offer the possibility of making higher education more convenient, flexible, and accessible and, in so doing, more inclusive and diverse” (2022, p. 7).

### **3. Carleton’s Framework for Micro-Credentials**

Most micro-credentials in Ontario have an open-enrollment model, and in line with this, micro-credentials at Carleton do not require admission pre-requisites to register. Units can provide an “ideal learner profile” for specific micro-credentials if prior knowledge or specific prior course completion will ensure successful completion of the micro-credential. Learners self-select into micro-credentials based on their skills and knowledge and the description of the credential provided. All micro-credentials are required to adhere to Ontario standards in terms of instructional hours (5- 300 hours; completed under 11 weeks), but the delivery method (online, hybrid, in-person, a/synchronous) can be determined on a case-by-case basis.

#### **a. Stackability**

Most micro-credentials are designed and offered as standalone units that address specific skills, competencies, or concepts. However, in certain areas, it may be feasible to consider and develop *stackable* micro-credentials. Stackable micro-credentials are designed together to address sets of skills, competencies, and concepts. Stackable micro-credentials are promoted as “stackable” so that learners are aware that there are complementary micro-credentials and whether completion of the “stack” produces a cumulative outcome like a certificate, transferable course credit etc. For example, an outcome of the successful completion of six micro-credentials focused on various components of writing, editing, copy-editing, and proofreading could be a micro-certificate in professional editing.

Stackable micro-credentials should be designed together (but not necessarily all offered at once) to ensure that each micro-credential provides something distinct as part of the suite of micro-credentials. Stackable micro-credentials can be designed to be taken sequentially but do not have to be if the learning objectives are related but not successive. Micro-credentials are short courses for maximum learner flexibility, and stackability addresses curricular needs that extend beyond a single short course. Stackability allows learners elect to take some but not all courses designed in a specific stack, rather than limiting micro-credential offerings to longer more time-intensive micro-credentials.

Should an undergraduate or graduate course be designed to be easily segmented into three or four stackable micro-credentials, completion of this suite could, at the discretion of individual units, be equivalent to the single course credit. If that course is featured within another unit's

program, that unit may then determine whether a completed stacked micro-credential is equivalent to the course from their program's standpoint.

#### **b. Format**

The Ontario Ministry of Colleges and Universities requires micro-credentials be between 5-300 hours and completed within 11 weeks (maximum). The length and delivery method of micro-credentials is at the discretion of the unit, and the length and delivery method are not required to be uniform between different micro-credentials offered by the same unit. Units can set a cap below 11 weeks so that a micro-credential must be completed in fewer weeks to facilitate more frequent scheduling.

In Ontario instructional hours are a foundational benchmark for how course credits and value are assessed. In most post-secondary institutions, a half credit course is based on three hours of course instruction over 12-15 weeks (usually 36-45 hours) (PEQAB, 2023, p. 56). Micro-credentials are distinct in that the evaluation of specific skills and competencies determine the length and duration of the micro-course. However, Ontario's Postsecondary Education Quality Assessment Board recommends that Ontario institutions limit micro-credentials to 40 instructional hours in length, suggesting that "normalizing micro-credentials to a duration of less than 40 hours should also mitigate any tendency to 'unbundle' or deconstruct current degrees" (2023, p. 56), which they caution post-secondary institutions against doing.

Once enrolled in a micro-credential students must be notified that if they take longer than 11 weeks to complete the course materials they will automatically fail and not receive the micro-credential certification. Micro-credentials can be delivered online, hybrid, or in-person, synchronously or asynchronously. Micro-credentials will be assessed as a pass/fail as micro-credential courses are not part of full-time enrolled student or alumni transcripts. For stackable micro-credentials how a pass/fail would be converted to a number or letter grade, if required,<sup>3</sup> would be decided by the unit and included in the course syllabus prior to offering the micro-credentials.

#### **c. OSAP Eligibility**

Micro-credentials are eligible for OSAP funding. For a micro-credential to be eligible for OSAP funding it must: 1) Include between 5-300 hours of instruction and be completed in 11 weeks (whole numbers only, no ranges/part-time duration). 2) Be quality assured, with confirmation from the institution in accordance with institution's normal institutional practices for quality assurance, with approval from the Board of Governors, Senate, and/or other approval processes. 3) Be labour market relevant, as indicated by Classification of Instructional Programs (CIP) and National Occupation Classification (NOC) codes and through partnership with specific industry partners or employers.

Proposed micro-credentials should consider submitting to the Ministry to be eligible for OSAP but are not required to be OSAP eligible to be delivered at Carleton. Micro-credentials can be proposed and delivered while waiting for provincial approval of OSAP for subsequent offerings. A 2024 Higher Education Quality Council of Ontario report highlighted that most of the current micro-credential consumer base were adult learners with financial means using personal savings or employer support for micro-credential fees (Pichette and Courts, 2024, p. 7) and therefore the OSAP eligibility of a particular micro-credential is not likely a significant factor in whether or if individuals enrolled in a micro-credential.

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<sup>3</sup> A letter or number grade is only required if the micro-credential is part of a stack of micro-credentials that converts into a course credit equivalent.

At Carleton once a micro-credential has been approved internally, the Office of Academic Programs and Strategic Initiatives will submit the micro-credential to the Ontario Ministry of Colleges and Universities for OSAP eligibility. There are three to four intake periods per year,<sup>4</sup> but these deadlines have not been stable, change yearly, and are usually communicated by the end of August. The ministry estimates that institutions will receive final decisions within 45-60 business days of a submission intake deadline. Late submissions are reviewed for approval in the following submission cycle.

#### **d. Fee Structure**

The tuition for standalone micro-credentials is set by the unit designing and delivering the micro-credential. The length, structure, and demand of a micro-credential should be factored into the tuition rate, which we suggest should range from \$200 - \$1500 per student.<sup>5</sup> The unit decides what to charge, and different micro-credentials delivered by the same unit can have different fees. The current practice at Carleton is that units that offer micro-credentials will receive the full amount of tuition charged, minus any credit card fees for enrollments paid via credit card. The funds from a micro-credential can be used at the department's discretion (Instructor's compensation; research funding; teaching award) and can be distributed within the department or directly awarded to faculty who offer micro-credentials. These agreements are to be made on a case-by-case basis or a standardized agreement within the department or unit. Teaching a micro-credential is not course equivalent, it is considered overload. The unit delivering a micro-credential will manage the upfront costs associated with its design and promotion. Publicity for the micro-credential may be conducted through the unit's and Faculty's websites and social media channels. If Teaching and Learning Services (TLS) resources are involved in the micro-credential's development, an estimate of those costs should be factored into the overall budget.

Stackable micro-credentials will have a separate fee model based on how the micro-credentials map on to existing course credits and will be part of a revenue sharing model to be discussed as part of the unit's annual budget.

#### **e. Industry Partnerships**

The current focus in Ontario is for micro-credentials to be developed with skills-training and labour market trends in mind. Industry partners are encouraged by the province for proposal, design, and in some cases delivery of micro-credentials. This is particularly salient for healthcare, technology and manufacturing as micro-credentials can offer immediate solutions to the need to upskill and reskill existing workforces. Early findings suggest most students enrolled in micro-credential courses are already in the labour market, with an estimated one in three taking micro-credentials through their employer (PEQAB, 2023, p. 13). A recent Canadian study suggested that while cost and reputation of the program were key indicators of whether a student would enroll in a micro-credential, the connection to potential employers was also a significant factor, more so than cost, time commitment or credit for future programs (Kennedy-Barrows, 2025). Units proposing a micro-credential are encouraged to explore industry partnerships, which may involve work-sharing and revenue-sharing agreements. These agreements would be established on a case-

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<sup>4</sup> For the 2024-2025 academic year there were three intake deadlines: August 9, 2024; October 17, 2024; February 14, 2025.

<sup>5</sup> If there is a highly specialized skill or niche curriculum that commands a strong premium (\$3000-\$5000) beyond the suggested micro-credential tuition range, the course should be developed as a professional development certificate rather than a micro-credential.

by-case basis between the industry partner and the unit delivering the micro-credential. OAPSI will provide guidance regarding such agreements.

#### **f. Certificate of Completion**

A certificate of completion is issued upon successful completion of a micro-credential. Certificates will be automatically generated by Brightspace. Stackable micro-credentials should be issued individual certificates of completion for each micro-credential. If the stacked credentials fulfill requirements for a micro-certificate or undergraduate course credit, these would be issued upon successful completion of the “stack.”

Students who wish to receive a transcript of their micro-credentials can contact the Registrar’s office since micro-credential students are not issued a student number and are not part of the student system, micro-credential completion will not show up on official Carleton student transcripts.

### **4. Institutional Approval Process for Micro-Credentials**

Micro-credentials can be proposed by faculty members, contract instructors, department chairs, and Faculty Deans. The introduction of an OSAP-eligible micro-credential follows the Minor Modifications workflow and requires a submission of a summary and rationale within CourseLeaf. A non-OSAP micro-credential requires the CourseLeaf entry for tracking, Apprendo, and Registration purposes. Micro-credential submissions will be reviewed and approved by unit Chairs and Faculty Deans, followed by the Senate Committee on Curriculum, Admission, and Studies Policy (SCCASP). Once approved, Senate is notified of the new micro-credential. Only micro-credentials that are being considered for OSAP eligibility will be sent to the Ontario Ministry of Colleges and Universities by the Office of Academic Programs and Strategic Initiative (OAPSI).

### **5. Micro-Credential Proposal Template and Timeline**

Micro-credential proposals should include the following:

1. Course name
2. Length (instructional hours and total weeks for completion)
3. Modality
4. Summary (for a general audience and promotional purposes)
5. Rationale
6. Identification of skills, competencies, or concepts covered in the micro-credential (including CIP and NOC codes for micro-credentials sent for OSAP eligibility)
7. Assignments and assessment strategy (for rolling asynchronous vs. synchronous delivery to ensure students receive feedback in a timely manner given the condensed timeframe)

Units should build in six months from proposal to delivery to ensure the micro-credential can be approved at each internal institutional level. For micro-credentials that require OSAP approval before delivery units should build in one year from proposal to delivery. Once approved, a micro-credential can be delivered as soon as the course and registration deadline are public and promoted. Approved micro-credentials can be offered multiple times without additional

institutional approval. Subsequent offerings of a micro-credential can be OSAP eligible if the unit was waiting for provincial approval during the first or second round of delivery.

Once a micro-credential is approved, the course will be created in both Apprendo and Brightspace. Micro-credential-only students are not in the Carleton student system and their registration will be done through Apprendo. Micro-credential students will have access to the course Brightspace. All course material should be accessible through the course Brightspace and can be customized accordingly based on the length and mode of delivery. Depending on the specific type of the micro-credential, Teaching and Learning Services (TLS) resources can be deployed in setting it up the micro-credential and provide ongoing support. The cost of intensive TLS services needs to be covered by the unit and/or from revenue generated.

Rolling registration (no set start date) is possible for asynchronous micro-credentials at the discretion of the instructor and unit, but all course content and student assignments must be completed within 11 weeks (or earlier) of their individual start date. Final course deadlines should be communicated to students in 1) the micro-credential registration and information page; 2) the registration confirmation email; 3) the course syllabus; 4) the course Brightspace.

## 6. Summary of Key Components of Micro-Credentials at Carleton

- **Idea:** If someone has an idea for a micro-credential, they can easily initiate it via a CourseLeaf entry. It is entirely driven by the unit/faculty member. The Office of Academic Programs and Strategic Initiatives (OAPSI) can offer consultative support, and can be contacted at [apsi@carleton.ca](mailto:apsi@carleton.ca)
- **Submission:** If the micro-credential is OSAP eligible, approval follows the Minor Modifications workflow. If non-OSAP eligible, the proposed micro-credential is submitted through CourseLeaf for tracking purposes only.
- **Approval:** Unit Chairs, and Faculty Deans followed by the Senate Committee on Curriculum, Admission, and Studies Policy (SCCASP).
- **Duration:** It can be 5 to 300 hours of instruction and take between 1 and 11 weeks, online-asynchronous (most flexible and preferred), but modality is a choice.
- **Frequency:** Can have multiple intakes throughout the year, and do not need to be correlated to the academic calendar.
- **Fee:** The fee estimate based on our research ranges between **\$200 - \$1500** per student. The unit decides what to charge, and different micro-credentials can have different fees, and it could exceed \$1500 per student.
- **Registration:** [Apprendo](#) is used for registration in the micro-credential via the Registrar's office website. A Brightspace course is created automatically.
- **OSAP:** OSAP eligibility is an option but not necessary. If interested in OSAP eligibility, then the proposal goes to OAPSI which sends it to the Ministry, and CIP/NOC codes are required (OASPI can help with that).
- **Publicity:** Department and Faculty websites, social media channels, academic networks, and e-campus Ontario.
- **Incentive:** The total revenues come directly to the unit (Fee minus credit card charges). Any costs associated with TLS resources need to be covered.

### Advanced elements:

- **Industry Partners:** If an industry partner is involved, OAPSI will provide guidance on a case-by-case basis.

- **Stackability:** If the micro-credential is being viewed as a stackable micro-credential, then a more-in-depth conversation with OAPSI is needed.

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## **Micro-Credential Framework at Carleton University - Appendix**

Prepared by Dr. Hashmat Khan Associate Vice-President Office of Academic Programs & Strategic Initiatives (OAPSI) and Dr. Bethany Berard, Program & Policy Analyst, OAPSI<sup>1</sup>

### **1. What are Micro-credentials**

Canada does not have a national definition of micro-credentials. Currently the definition of micro-credentials varies between provinces, as well as between post-secondary institutions. Indeed, the lack of a national or international definition of micro-credentials is cited as a barrier to their success (Gallagher, 2016; Kato, Galán-Muros, & Weko, 2020). *A European Approach to Micro-Credentials* suggests micro-credentials be defined as follows: “A micro-credential is a proof of the learning outcomes that a learner has acquired following a short learning experience. These learning outcomes have been assessed against transparent standards. The proof is contained in a certified document that lists the name of the holder, the achieved learning outcomes, the assessment method, the awarding body and, where applicable, the qualifications framework level and the credits gained. Micro-credentials are owned by the learner, can be shared, are portable and may be combined [stacked or laddered] into larger credentials or qualifications. They are underpinned by quality assurance following agreed standards” (Shapiro Futures et al., 2020, p. 10). It is important to note that a “micro-credential” is the digital badge that is evidence of completion of a micro-credential course or module that can be easily verified by employers, educators, and peers (Gooch et al., 2022). These digital badges often include metadata that include core skills and/or competencies completed and issued by an accredited educational institution (Reed, 2023; Rottmann & Duggan, 2021).

Micro-credentials are distinct from courses offered through traditional certificate, diploma, or degree programs in so far as they a) are shorter than traditional courses; b) assess a specific or discrete competency or skill; c) respond to employer or employment-related needs and gaps in the labour market in real time; and d) can be offered by post-secondary institutions in collaboration with public or private industry partners (see Gooch et al., 2022). As such, micro-credentials do not need to operate within the traditional academic calendar and semester registration as their duration and response to the labour market mean they should be able to be developed and delivered much faster than traditional course offerings and offered many times throughout the academic year if necessary. Micro-credentials are one of the most recent examples of “alternative credentials” that are part of the growth of life-long learning initiatives and nontraditional educational programming.

UNESCO’s definition of micro-credentials is one of the only definitions to focus on and address the requirement and issue of accreditation and quality assurance. In 2022 UNESCO provided the following characteristics of micro-credentials:

- Is a [portable, digital] record of focused learning achievement verifying what the learner knows, understands, or can do.
- Includes assessment based on clearly defined standards and is awarded by a trusted provider.
- Has standalone value and may also contribute to or complement other micro-credentials or macro-credentials, including through recognition of prior learning.
- Meets the standards required by relevant quality assurance (Beverley, 2022, p. 20).

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<sup>1</sup> This project was supported by an Ontario Council on Articulation and Transfer (ONCAT) Grant. Project # A2419.



Micro-credentials have been positioned as a response to the realities of a changing labour market in which employees are required to re-skill and up-skill to remain competitive. Micro-credentials are quicker, more targeted, and more flexible than traditional pathways to certification and present an opportunity to accommodate a wider range of learners, and an avenue for lifelong learning (Organization for Economic Co-operation and Development, 2023, p. 3). In this way, e-Campus Ontario suggests that “micro-credentials offer the possibility of making higher education more convenient, flexible, and accessible and, in so doing, more inclusive and diverse” (Bigelow et al., 2022, p. 7). The development of micro-credentials accelerated in response to the COVID-19 pandemic as one way to address gaps and changing needs in the labour market. However, there have been international discussions since the mid 2010’s about the need for modular and flexible learning as populations age and time-consuming skills-retraining is not always a viable option (Bigelow et al., 2022, p. vi; see Gallagher, 2016; Thi Ngoc Ha et al., 2023; Ifenthaler, Bellin-Mularski, & Mah, (Eds.), 2016; Rottmann & Duggan, 2021).

A 2024 study of post-undergraduate Canadians found that the cost, institution reputation, and external connection to employers were the factors most likely to influence someone’s decision to sign up for a micro-credential of interest. Online delivery was preferred but not universally, and programs under fifty hours were preferred. Programs with excellent reputations or clear explicit connections to employers were able to maintain high shares of preference with higher program costs (Kennedy-Barrows, 2025). More research is needed to understand how stakeholders (potential learners, educational institutions, industry partners, and employers) view and understand micro-credentials (Ahsan et al., 2023).

## **2. Micro-Credentials in Ontario**

In Ontario there has been growing investment in micro-credentials, particularly as part of the COVID-19 recover response. In November 2020, the Ontario government announced a \$59.5 million investment in micro-credentials over three years.<sup>2</sup> Notably, micro credentials are positioned by the Ontario government as an option to provide “quick pathways to employment, minimizing the amount of time workers are removed from the labour market compared to more traditional credentials” (Ontario College and University Faculty Association, 2021, p. 2). While micro-credentials are presented as one avenue for life-long learning and retraining already skilled workers, it remains unclear whether they will continue to receive provincial funding, and how permanent they will be as part of Ontario’s postsecondary education and training ecosystem.

As of 2025 The Ontario Ministry of Colleges and Universities defines a micro-credential as a “flexible and granular form of postsecondary education and/or training which delivers specific skills and competencies, may be developed, and offered in a partnership between one or more postsecondary institution(s) and one or more employer(s), may be tailored towards a specific need, or may be stacked together with the opportunity to track towards a larger credential.” They also clarify that, “Micro-credentials are considered programs of instruction/study that lead to qualifications. As defined in O. Reg. 34/03 under the Ontario Colleges of Applied Arts and Technology Act, 2002, a program of instruction means a group of related courses leading to a diploma, certificate, or other document awarded by the institution” (2024, p. 3).

Since March 2021 micro-credentials offered by publicly assisted Colleges, Universities, and Indigenous Institutes in Ontario can be eligible for Ontario Student Assistance Program (OSAP) grants and loans. OSAP eligibility was expanded to include micro-credentials offered by private institutions and private career colleges in 2022. At the end of 2023, 1800 micro-

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<sup>2</sup> <https://www.ontario.ca/page/micro-credentials-ontarios-postsecondary-schools#section-5>

credentials offered by Ontario institutions are OSAP eligible (PEQAB, 2023, p. 60). The micro-credential must be eligible for OSAP (all eligible courses are listed on the OSAP application) for students to apply for funding to support all or part of the course fees. Institutions can also indicate OSAP eligibility for micro-credential listed on the eCampus Ontario micro-credentials portal. It is important to note that a 2024 Higher Education Quality Council of Ontario report highlighted that most of the current micro-credential consumer base were adult learners with financial means using savings of employer support for micro-credential fees (Pichette and Courts, 2024, p. 7) and therefore the OSAP eligibility of a particular micro-credential is not likely a significant factor in whether or if individuals enrolled in a micro-credential.

For a micro-credential to be eligible for OSAP funding it must: 1) Include between 5 to 300 hours of instruction and take between 1 and 11 weeks to complete (whole numbers only, no ranges/part-time duration). 2) Be quality assured, with confirmation from the institution in accordance with institution's normal institutional practices for quality assurance, with approval from the Board of Governors, Senate, and/or other approval processes. 3) Be labour market relevant, as indicated by Classification of Instructional Programs (CIP) and National Occupation Classification (NOC) codes and through partnership with specific industry partners or employers.

At the time of this report, micro-credentials in Ontario do not have a standardized or recognized Quality Assurance Framework. The Postsecondary Education Quality Assessment Board (PEQAB) has proposed an Ontario Micro-Credentials Quality Framework (OMCQF) that aligns with the existing Ontario Qualifications Framework (OQF). PEQAB notes that “micro-credential” is not and cannot be a protected term, and therefore “globally, any institution, employer, industry, or professional association can currently call any short course it offers a “micro-credential,” and this will continue even if a quality assurance framework for micro-credentials is established in Ontario” (2023, p. 5). As a result, PEQAB suggests that to distinguish quality-assured micro-courses and micro-credentials as a protected and defined term, *Ontario Micro-Credential (OMC)* should be used. Ontario micro-credentials would thus have an official trademark only used by the Ontario government or Designated Ontario Micro-Credential Institutions (DOMCIs). DOMCIs would be recognized as official OMC providers after assessment and endorsement through an External Quality Assurance Agency (EQAA), which if institutions demonstrate that all micro-credentials are aligned with the proposed OMCQF.

PEQAB's micro-credential framework also suggests that within their OMCQF distinct OMC qualifications can be developed, each corresponding to the qualification categories that are set out in the Ontario Qualification Framework: Certificate, Apprenticeship, Diploma, Post-Diploma Certificate, Bachelor's, Master's, and Doctoral degrees (2023, p. 52). At this time the distinction between types of micro-credentials is underdeveloped in Ontario, as most micro-credential offerings have an open-enrolment model, do not have any admission requirements to register, and are not designed to correlate with undergraduate or graduate level content. PEQAB's suggestion that micro-credentials could correspond to qualification categories suggest that graduate micro-credentials could be developed with minor modifications to the current open enrollment model. However, this would only be beneficial once the micro-credential format is more widely recognized, as a 2025 study of Canadian post-graduates found only one in three respondents had prior knowledge of micro-credentials (Kennedy-Barrows, 2025).

### **3. The Micro-Credential Learner and Micro-Credential Pathways**

Micro-credentials broaden the kinds of learners Carleton can engage, learners looking to a) re-skill to meet the demands of a changing job market; b) upgrade current skills to maintain or advance in their current careers; c) add new skills to try and successfully enter the job market.

Advocates of micro-credentials view them as innovative, and a modern flexible, modular response to a changing labour force. A 2023 Organization for Economic Co-operation and Development (OECD) report highlights micro-credentials as one avenue to help “aid laid-off workers and workers whose skills are obsolete and whose job are at risk of automatic to gain new skills demanded in labour markets, thereby efficiently reducing the mismatch between skills sought and available” (2023, p. 3).

Developing micro-credentials does present challenges for universities as they are explicitly framed as credentials to highlight specific skill sets or competencies, which are often a key component of vocational college curriculum. Universities may augment their curricular offerings by adding micro-credentials that focus on skills that are useful in the application of degree programs (e.g., engineering or lab-based sciences) or basic competencies useful in the job market after their degree (e.g., copy editing, advanced skills in specific software programs and data-oriented competencies). While students may develop these skills during their degree program, they may want to refresh or update these skills once they are in the labour market. As micro-credentials are evaluated as stand-alone units, specific skills sets are evaluated, and successful completion of a micro-credential can demonstrate a new skill or upgraded capacity for employers (Gauthier, 2020). Universities therefore should consider micro-credentials as additional skills-based opportunities for graduates entering or already in the labour force.

A 2021 OECD report suggests that even when micro-credentials are used as a “bridge” to higher education the results are mixed, as multiple, or complex stacked pathways do not necessarily improve post-secondary retention (2021a). PEQAB notes that “there is a very low success rate for micro-credentials being granted credit—“stacked into”—a larger credential. Thus, despite the desire for micro-credentials to be recognized and integrated into mainstream programming, the lack of information on the academic level of programming [of micro-credentials] significantly hinders that implementation” (2023, p. 17). Micro-credentials are unlikely to be pathways into bachelor’s degree programs, and as articulated by the Province of Ontario, micro-credentials are intended to help reduce learner time away from the job market and advance skills training in a shorter timeframe than traditional certificate, diplomas, or degrees.

The average student in a micro-credential tends to a) already have a higher education degree; b) be from more privileged socio-demographic groups; c) generally already have a high degree of digital competence; d) are likely to already have some knowledge about the course topic, and e) tend to be employed full time (OECD, 2021b, p. 29; see also Pichette and Courts, 2024). In Laruen Kennedy-Barrow’s recent study of post-graduate Canadians she found those most likely to sign up for a micro-credential were 35-44 years old, held a post-second degree or diploma, and were earning less than \$100 000. Those least likely to sign up for micro-credentials were 55-66, earning less than \$100 000, and largely unfamiliar with micro-credentials (2025).

#### **4. Micro-Credential Concerns and Caveats**

A 2021 Higher Education Quality Council of Ontario report notes, there currently exists an “awareness gap among Canadians and Canadian employers, about what micro-credentials are and who they serve. Even among post-secondary institutions, the term is used inconsistently” (Pichette et al., 2021, p. 1). Confusion about what micro-credentials are, what they signify, and what their value is to both the learner and employer poses problems for engaging potential learners and for uptake of micro-credential offerings (McDonough et al., 2025). Pichette et al., highlighted that in 2021 59% of employers surveyed indicated they were “not familiar at all” with micro-credentials. While these numbers are out of date, Kennedy-Barrows suggested in

2025 that only one in three respondents were aware of micro-credentials, prior to her survey. PEQAB's suggestion of a proprietary Ontario Micro-Credential could help standardize the definition of micro-credentials Ontario and thus help increase public awareness of micro-credentials there are no current indications that standardization is a Ministry priority.

Micro-credentials are much shorter and more targeted than most university courses. Micro-credentials are not intended for current students and provide an opportunity for Carleton to identify and develop curricular offerings that would introduce new skills and competencies that may otherwise be outside current curriculum, rather than breaking down, “unbundling, or deconstructing” current courses into discrete micro-credential units, which PEQAB cautions against (2023, p. 23). For example, micro-credentials in writing for different audiences, practical software skills, and other courses with employment-focused skills-based outcomes. However, this may cause tension especially at research-based degree granting institutions where learners may feel they need skills offered through micro-credentials that they did not receive as part of their program, but feel they should have, as the University demonstrates the usefulness of, and capacity to teach these skills by offering dedicated skills-based micro-credentials. In the gig economy, which places more burden on the individual for their employability, micro-credentials encourage additional but often haphazard accreditation, which has resulted in the persistent critique of micro-credentials as a “gig qualification” (Wheelahan & Moodie, 2022).

Micro-credentials are condensed, episodic units of learning with a significantly lower fee than full-time enrolment in degree programs. Some argue the lower commitment and fee means micro-credentials will serve marginalized individual and groups. However, this is in contrast with the comprehensive education and training privileged individuals and groups have access to through multi-year degree programs (Wheelahan & Moodie, 2021). As numerous studies show there is a “positive correlation between time spent in education and training and positive labour market outcomes” (OECD, 2023, p. 6) micro-credentials may then deepen existing inequalities in access to higher education and positive labour market outcomes. One approach to mitigate the ongoing inequitable access to education, specific to micro-credentials, has been caps on micro-credential fees in Ireland and New Zealand (OECD, 2023), and the possibility of OSAP grants and loans for micro-credentials in Ontario presents one financial measure to reduce barriers to engagement. The Ontario College and University Faculty Association cautions that the increased options for OSAP eligibility by adding micro-credentials did not come with an increase in funding, and as such there are more applicants for the same amount of funding (2021).

Many of the current concerns about micro-credentials are related to quality assurance as they are not regulated or standardized provincially, nationally, or internationally. Institutional transparency with respect to quality assurance is an important step in continuing to legitimize micro-credentials for both potential learners and employers. UNESCO has outlined clear responses to major criticisms of micro-credentials (see van der Hijden & Martin, 2023) and suggested that “trust, authentication and authorization are critical to the success of formal qualifications” (p. 40) and especially integral to micro-credentials as they are primarily digital badges that are outside traditional programs and established educational structures (see also McGreal et al., 2022). Peter van der Hijden and Michaela Martin recommend that: 1) national policy frameworks for the promotion of micro-credentials are developed; 2) multi-actor learning ecosystems are developed for stronger conversation between learners, educational institutions, and employers; 3) a comprehensive national qualifications framework is developed; 4) invest in the technological infrastructure for the digital storage of learning; 5) ensure internal external quality assurance; 6) allocate resources to support course providers and learners (see also: Brown

et al., 2023).

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