

# Ten Facts You Need to Know About Micro-Credentials

## 01 The definitions

There is no absolute definition for micro-credentials in Canada or anywhere else, in terms of period of study, range of content or specific forms of assessment. These components are, however, widely recognized as key characteristics of micro-credentials:

- A skills and competency-based focus for learning rather than time.
- Short and focused on a narrow range of skills and competencies.
- Competency is assessed as a demonstrable skill or behaviour, varying across micro-credentials.
- Quality is assured through peer and industry review.
- Industry recognized. Many micro-credentials are co-developed with industry or based on statements from industry organizations about the skills and competencies they're looking for.
- Personalized with the right combination of micro-credentials to meet individual learners' needs.
- Modular and stackable. Some micro-credentials are "one off" learning and assessment experiences, while others are modules that can be stacked to create a qualification.
- Shareable. The qualification is placed in a digital wallet or e-portfolio the learner can share with employers or education institutions.

In Ontario, it is widely [agreed that a micro-credential is "transcriptable"](#) meaning it will appear on a learner's college or university transcript and will be deposited to her or his digital wallet or e-portfolio.

What is not agreed is how long a micro-credential takes to acquire (varying by content) or how portability between countries is assured.

Micro-credentials are not:

- Time-based
- One size fits all
- Traditional online classes or courses
- Available only at set times
- About knowledge acquisition (rather they are about applying knowledge and capability through the mastery of a demonstrable competence)

In Canada, eCampusOntario developed [a framework for micro-credentials](#), which is being used to shape an Ontario-wide approach.

In Europe, a consortium of MOOC providers sought to create [a framework suggesting that microcredentials represent the equivalent of 100-150 hours study time](#) at a university or college level.

In August 2020, the [EU Commission proposed this draft definition](#) of a micro-credential:

"A micro-credential is a recognized proof of the learning outcomes that a learner has achieved following a short learning experience, according to transparent standards and requirements and upon assessment.

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, are shareable, portable and may be combined into larger credentials or qualifications."

## 02 Delivery mechanisms

Micro-credentials can be offered in several ways:

- Face-to-face;
- Blended; or
- Fully online learning.

The mode of delivery varies by the nature of the content and assessment. Most micro-credentials are available through online learning, and the main focus is on demand courses and on demand competency assessment, but there are no limitations on courses being offered face-to-face or through blended learning.

## 03 MOOCs

Between them, Massive Open Online Course (MOOC) providers such as edX, Coursera, Udacity and FutureLearn offer more than 900 micro-credentials.

The nature and scope of varies by MOOC provider. Their offerings include:

- [FutureLearn](#)
- Coursera – where micro-credentials are known as [Specializations](#), [MasterTrack Certificates](#), [Professional Certificates](#)
- [Udacity – micro-credentials are known as nanodegrees](#)
- [edX – micro-credentials are known as MicroMasters](#)

A comprehensive listing of MOOC-based micro-credentials is maintained by [Class Central](#).

## 04 The definitions

Micro-credentials are offered by companies, colleges, universities, professional bodies, licensing organizations and through partnerships between education and business.

Here are some examples:

### Corporations

- EY (formerly known as Ernst & Young) began to offer its own badges for learning in 2017, and now [offers 200+ badge-based courses on the Acclaim platform](#).
- Amazon invested \$700 million in online learning activities for its staff, and offers its Amazon Web Services (AWS) users the opportunity to [earn certifications](#).
- CISCO is using the Acclaim platform to offer [badges for learners to develop skills that enable them to use CISCO's technology](#).
- Siemens developed a suite of [digital badges for K-12 students](#) aimed at strengthening their understanding and skills in STEM subjects.
- [IBM offers more than 1,500 badges and 100+ certificates](#) to its staff, partners and customers focused on technologies, project management and artificial intelligence.

### Colleges

- Many Canadian colleges have been offering micro-credentials for some time, including [Alberta's Bow Valley College \(Alberta\)](#).
- **Ontario's Humber College offers [modular stackable credentials leading to a REVIT Architecture Professional Certificate](#)**.
- Sheridan College in Ontario offers [three micro-credentials in skills that are in high demand](#).
- eCampusOntario is supporting [36 micro-credential projects across Ontario](#), with programs offered at both universities and colleges.

### Universities

- [OCAD University offers more than 25 micro-credentials, including badges in virtual reality and digital design](#).
- Athabasca University's Power-Ed offers [micro-credentials in project management, digital transformation and leadership](#).

- University of Wisconsin-Extension and five others (UC Davis, UC Irvine, Georgia Tech, University of Washington and University of Wisconsin) have partnered with [The Learning Store](#), which started posting courses in 2016 to increase access to their courses. Students can buy courses and take an assessment to earn a badge for \$25-\$150 with a 3- to 30-hour investment of time.

### Professional organizations

Professional organizations using Open Badges for certification and/or professional development include:

- The [Society for Human Resource Management](#)
- The [Institute of Management Accountants](#)
- The [Association of Clinical Research Professionals](#)

### Partnerships

- McMaster University Continuing Education and the National Institutes of Health Informatics (NIHI) [launched an online data analytics micro-certification program](#) in 2020.
- Athabasca University's Power-Ed in partnership with the Rick Hansen Foundation offers [certification in accessibility](#).

### Other organizations

- Wellness Works Canada provides [certification for practitioners and experts](#) in well-being and health in the workplace.
- School systems, including [Florida Department of Education](#), developed suites of micro-credentials to support professional learning and development.
- Educause, the collaborative network of educational technology professionals in the U.S., offers a [suite of its own micro-credentials](#).

Different micro-credentials offered by these various organizations [are perceived by employers to have varying value](#) depending on the quality of competency assessments and the range of competencies covered by the credential.

## 05 Proof of capabilities

Micro-credentials are digital and are posted to a learner's e-portfolio or e-wallet. Once posted, they are "owned" and managed by the learner.

An e-portfolio is a form of digital wallet. As a badge or certificate is earned, it is automatically deposited in the learner's wallet, allowing the learner to control who can see which credentials when. It is also possible for the issuer to time-limit the use of the badge or certificate, ensuring that outdated knowledge and skills don't continue to appear. In Canada, [all college and university registrars have agreed in principle to move to digital credentials using the platform developed by Digitary](#), a blockchain platform developed in Ireland.

If a skill or competency becomes out of date, for example, a new way of undertaking a specific process or competency becomes standard, it's possible for the issuer to revoke that credential. For example, when the guidelines for [CPR changed in 2010](#), a digital CPR certificate issued before that date could be given an expiry date requiring the holder to update their skills and competencies.

## 06 Badges and micro-credentials: The distinctions

There are distinctions between digital badges and micro-credentials.

The key difference is whether or not the credential is "transcriptable," meaning it could appear on a traditional college or university transcript.

To elaborate:

- Micro-credentials are related to a formally approved or accepted set of standards or competencies.
- Micro-credentials are formally taught by a teacher or mentor who is responsible and accountable for ensuring the student learns and demonstrates the expectation for awarding the micro-credential.
- Micro-credentials can be stacked to achieve a credential recognized by other institutions.

Badges, on the other hand, can be for anything and awarded by anyone. The value is in learning the specific skill or knowledge.

## **07** Assessing competencies

Some micro-credentials can be secured through assessment only, without attendance or course study requirements.

Learners do not have to attend courses either online or in person to secure certification. They must demonstrate their competence through assessment.

Platforms such as [Valid-8](#) are being used to capture competencies using video, audio, text or combinations of these medium, which can then be assessed independently of any specific course by a qualified assessor. To ensure quality, the assessment can be validated by an experienced validator who can review the judgement of the assessors.

An example of assessing competencies is the [Microsoft Certification](#) program. The examination is called when the learner believes she or he has mastered the skills and competencies for a specific level and type of certification. Once assessment is undertaken and skills are assessed, certification can occur whether or not the individual has attended courses, undertaken self-study or work-based learning, or coached by a colleague, friend or relative.

Modules in a variety of degrees and diplomas at the University of Wisconsin can be assessed on demand through their [flex program](#), including in business and technical communications, project management, nursing, IT and other programs.

## **08** Stackable credits

Some micro-credential can be “stacked” and used in for-credit programs.

As an example, courses taken and completed in [Athabasca University's Leadership and Management Development program](#) can be stacked to create a certificate, which in turn can be transferred to that university's MBA degree as a full for credit elective. Another example is [MicroMasters from MIT](#), which is combined with courses from Arizona State University to become a master's degree.

Canadian organizations [are exploring how micro-credentials can be used in credit banking and credit transfer](#).

## 09 Tax credits

Canadian learners can pay for a part of the cost of a micro-credential through several Government of Canada tax credits:

- [Canada Training Credit](#)  
Since 2019, Canada provides a tax credit for tuition costs for learning activities provided by a legitimate provider. \$250 in a given year is available (and can be accumulated) to a lifetime limit of \$5,000. This is separate and distinct from the existing tuition credit.
- Since 2017, Canadians can claim a tuition credit for skills-related courses and programs of study offered by a recognized educational institution or training provider.

The 2020 Ontario Budget suggests Ontario Student Assistance Program (OSAP) will be modified to provide financial support for these credentials – a development welcomed by [colleges](#) and universities.

## 10 What employers want

Employers are increasingly interested in demonstrable skills and a clear commitment to lifelong learning when hiring.

A [study by Northeastern University \(U.S.\)](#) shows a significant shift in focus away from formal degree and diploma credentials to clear evidence of skills and competencies.

- 23% of companies surveyed already prefer skills-based evidence over degrees.
- 39% indicated they were moving in this direction.
- 64% saw micro-credentials as demonstrating a commitment to lifelong learning – something they valued highly.
- Many (55%) saw micro-credentials gradually diminishing the emphasis on degree-based hiring.

Several companies, including Google, EY, Penguin-Random House, Costco, Whole Foods, Hilton, Publix, Apple, Starbucks, Home Depot, IBM, Bank of America and Lowe's, no longer use degrees as a major requirement of hiring.

## > The key takeaway

Micro-credentials are increasingly seen as key to [the future of work and learning](#) and to ensuring [entry to the workforce becomes more accessible to more people](#).