



MARCH 2021

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FACULTY VOICE

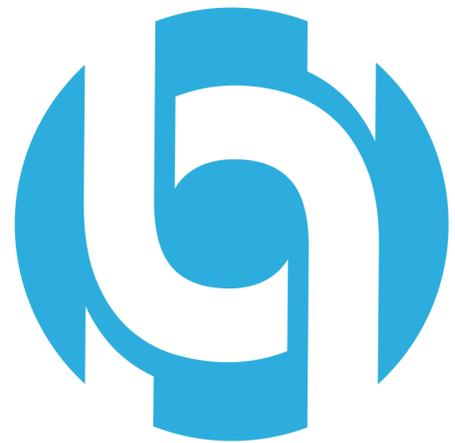
**ON ACADEMIC CREDIBILITY IN MICRO-CREDENTIALS
AT BC'S RESEARCH UNIVERSITIES**

A White Paper by CUFA BC

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Introduction

Governments and policymakers have recently been advancing the concept of micro-credentials—small units of educational achievement with a variety of pathways and purposes—into the post-secondary sector. Proponents cite flexibility for students, adaptability to the workforce, and nimbleness to technological change as reasons micro-credentials need to be quickly and fully integrated into the sector. Critics are cautious that for-credit micro-credentials may put the integrity of established degrees and the academic mission of post-secondary institutions as a whole at risk if they are not adopted prudently and with proper oversight.

Micro-credentials are emerging as a new kind of education strategy in the post-secondary sector, although they have long existed in industry. In universities and colleges, non-credit micro-credentials are increasingly being used as a tool to allow students opportunities to learn new skills, pivot to new fields, and access education without engaging in full formal programs.

Similar to non-credit continuing studies programs, they are usually completed in a condensed time-frame compared to traditional forms of education, and allow for flexibility and customizability in ways the traditional pathways do not. Micro-credentials are appealing in that they generally comprise skills-based pedagogies rather than content-based.

At the provincial and federal levels, governments are exploring the ways in which micro-credentials can augment education in response to market demands for skills related to changing technology, employment trends, and demographics in the workforce. At the same time, post-secondary institutions are exploring alternative pedagogical delivery models, as well as alternative revenue streams in the face of declining government funding, enrolment pressures, and economic uncertainties. The confluence of these goals has brought focused attention on developing micro-credentials in higher education.

Micro-credentials are complicated not least because they are poorly defined, unstandardized, and have limited portability across institutions.

In all of this, we see the role of faculty and university senates as central to their success in credited programs, as they are accountable for academic quality and oversight of the university's academic mission.

In this paper, we will **explain** what micro-credentials are and **how** they are currently being used in academia and the workforce. We will **describe** the benefits of micro-credentials, which are many, and then **detail** where we see pitfalls.

In all of this, we see the role of faculty and university senates as central to their success in credited programs, as they are accountable for academic quality and oversight of the university's academic mission.

For credit micro-credentials can be successfully applied within the post-secondary sector, but only if this is done strategically.

Overview

of Micro-Credentials

Micro-Credentials: An Emerging Definition

In broad terms, micro-credentials are compressed programs of skills-based learning with highly granular curricula. The definition for *micro-credential* is evolving and no single one prevails, although much effort is focused on establishing a universal nomenclature.^{1,2}

Micro-credentials are best understood in the context of formal academic credentials. A *credential* represents certification of student knowledge and competency and measures qualifications in units known as degrees, certificates, and diplomas. Credentials are provincially regulated and exist on a continuum where, at one end, is an entry level credential (called a *citation*) obtained in about six months or a *foundation trade certificate* achieved in six to twelve months and, on the other end, are *degrees* requiring many years of study.³ Some credentials can be pursued independently from one another while others stack together in a prescribed sequence, like in the case of doctoral degrees that first require completed bachelor's and master's degrees.

A *micro-credential* then is an educational attainment that covers material more specific and focused in nature than does a traditional credential and can be achieved in a compressed timeframe. Some are complete standalone courses, like Workplace Communications Skills at Royal Roads University or Core Skills for Data Literacy at UBC-Okanagan,⁴ while others are intended as precursors to formal education, like a pre-qualifying language certificate to begin a degree program. Still others are taken concurrently to or after a formal program to supplement learning, as in the case for many certificates taken by childhood educators or health care professionals to keep them up-to-date as best practices change. Unlike degrees and certificates, micro-credentials are not currently subject to a formal accreditation process—a rigorous process involving peer-review that can take years to accomplish—and are rarely awarded credit toward traditional educational programs. The accreditation and non-credit status are shifting as micro-credentials become integrated into higher education programs.



Overview

of Micro-Credentials

Why Micro-Credentials?

Micro-credentials should not be conceived of as something to replace traditional educational credentials, which are more comprehensive in nature and offer a broad suite of skills suitable to meet many emergent market demands and educational interests. However, they do open the possibility of strategically augmenting advanced education outcomes to better harmonize with market demands for a skilled workforce. Labour market demands continue to require the time-sensitive availability of a technically skilled workforce that can meet the challenges of a constantly changing market. Disruptions from economic crises, the continuing automation of the workplace, emergent changes in industry, and other factors will heighten the need for lifelong learners who can transition at multiple points throughout their careers. It is this educational niche that micro-credentials target. Industry reports often claim that “Canada’s education system, training programs, and labour market initiatives are inadequately designed to help Canadian youth navigate the new skills economy.”⁵

While many colleges and polytechnic institutions are well suited to offering targeted vocational training through certificates and diplomas—something micro-credentials aim to do in modularity in a shorter time frame—some research has suggested there exists a “mismatch of competencies developed in higher education and those that are favoured by employers.”⁶

The greatest skills gap is typically purported to be in the area of *human skills* like critical thinking, social perceptiveness, complex problem solving, and digital fluency, although other research suggests persistent skill gaps exist in certain industries like finance and high-tech.⁷

The research in this area is mixed, however, with still other studies indicating higher education does well in preparing students for the job market. Some scholars have suggested that the mismatch is centred more in how we talk about student skills within their credentials, and that transcripts inadequately articulate the breadth of skills obtained in traditional higher education.^{8,9} Later in this paper we elaborate on the role transcripts play in the discussion of skill gaps.

It is clear, however, that whether these gaps exist isn’t as important as the fact that many policy-makers and industry leaders have the perception that they exist, and are actively working to address this problem, in part through micro-credentials.



Overview

of Micro-Credentials

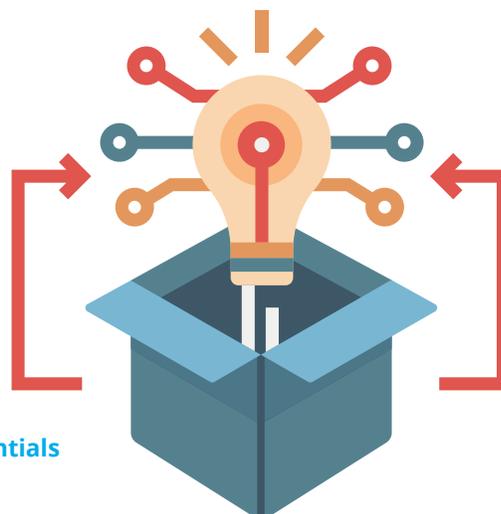
Why Micro-Credentials? cont'd

In British Columbia, graduates who hold traditional credentials have historically enjoyed better career prospects compared with those who have only a high school education.¹⁰ This has held true even throughout the pandemic, where employment trends have shown the rate of unemployment is lowest for those with a post-secondary education.¹¹ However beneficial post-secondary education can be for advancing the interests of an educated society, it is also true that it may not be the solution for everyone.

Traditional credentials like four-year degrees can be time-intensive, often requiring full-time attendance for many years with minimal opportunity to actively participate in the workforce. They can be costly as tuition and living costs accrue while income is limited. This may make education harder to access for those without independent means to survive. Even for those who obtain traditional credentials, there exist many points throughout one's career when market changes may necessitate pivoting. Then again, unanticipated skills gaps in targeted labour markets can emerge suddenly and may not be addressed by traditional programming.

Micro-credentials may be a way for universities to continue its work to **decolonize the academy** by recognizing that education, under a colonial framework, has historically been exclusionary. By offering ways for students to gain the skills they need to be successful, it is a way of recognizing that not all students arrive at university with the same set of skills. By offering skills as a credential, it does not burden students to do more on their own time, but provides opportunities to gain more within the typical degree structures. This has the potential for universities to more meaningfully engage with the TRC Calls to Action.

At their best, micro-credentials are an elegant complement to traditional learning as they can meet students' needs for specific skill-based learning, employers' needs for targeted skills, higher education's needs for pedagogical diversification and increasing revenue streams, and government's needs to better integrate higher education and industry.



Overview

of Micro-Credentials

Adaptability & Flexibility

One of the greatest strengths micro-credentials offer is in their quick adaptability to meet emergent needs. Conventional degree programs can often take years to develop and implement and are subject to rigorous accreditation processes, whereas micro-credentials are less encumbered due to their narrow focus and often complementary role. As a timely example, we can look to the many health-related professions that are currently attempting to be authorized to provide vaccines. It would take years to incorporate vaccine administration into a Long-Term Care Aide (for example) program, graduate a cohort, and have them enter the workforce. A “Vaccine Administration” micro-credential could be easily developed, however, and deployed to the massive workforce already in place and in a timely way to support immediate pandemic mitigation efforts.

The flexibility of micro-credentials benefits the learners as well and expands upon many of the major shifts in educational programming seen in post-secondary today. They can be developed to respond to individual learning needs (offered online, in-person, or hybrid; full- or part-time), career needs (mid-career shifts or as value-added learning opportunities), entry-point needs (recognition of prior learning, learning outside of Canada), and equity needs (single parents, learners with cognitive or other kinds of disabilities, or those living in rural areas).

Direct work experience plays a crucial role here as well, as it allows students to fine-tune their skills-based knowledge and learn practical competency. It also allows employers to ascertain the employability of the student and the credibility of the program. Not all university degrees provide this direct connection, however, and employers are not always skilled at

reading between the lines of a transcript. Micro-credentials may provide an answer to both problems, as they allow the student to hone their skills and the employer to see immediate and direct evidence of targeted competencies.

Micro-credentials are highly inter-disciplinary, often transcending the issues of siloed educational units. They can count as credits toward existing programs or be non-credit. They can be stand-alone or complementary to existing degree programs or they can stack together in much the same way that degree programs stack. That is, they can be linked to other related micro-credentials that, when combined, can lead to a higher credential upon completion. They are potentially wonderfully democratic in that they are typically open to an inclusive, expansive audience.

All of the benefits of micro-credentials as adaptable and flexible have the potential, if done carefully, to increase accessibility to post-secondary education and contribute to a more educated society. If done poorly however, they run the risk of being costly, ineffective, and ultimately without educational value.

This is what happened with Massive Open Online Courses (MOOCs) since their introduction a decade ago, where now we see the heavy attrition trends in enrollment, the concentration of participation in exclusively affluent countries, and low completion rates that plague the system.¹²



Situating

Micro-Credentials in BC's Universities

The Academic Mission & Micro-Credentials

Micro-credentials have existed for many years in the private sector often serving as a means of targeted skills development suited to an employer's workplace needs. For-profit learning platforms like LinkedIn Learning (formerly Lynda.com), Coursera, and Udacity have targeted a large market share of short, hyper-focused training modules that aim to satisfy the needs of business for particular labour skills and even satisfy the curiosity of lifelong learners. Outside of these private skills training options (and prior to their existence), employers have to develop their own on-site education programs that train employees in various specializations suited to the worksite. Only some of the skills learned in these private employer programs transfer to other employment contexts and most of the certificates are not recognized by other employers. The desire for publicly funded institutions to offer these kinds of market-driven skills training has existed with increased urgency in the last few decades.

The term micro-credentials may be relatively new to higher education in universities, however, the concept of condensed, targeted skills training tailored to industry needs and delivered by public universities is not. This trend is a continuation of a century-old movement to re-orient public university education from its traditional academic mission to serving the immediate needs of industry, a move that universities and professions have largely resisted.

The traditional mission of higher education holds broad goals that serve society-at-large over the interests of government, corporations, or a particular class in society. Higher education endeavours to develop "a wide range of literacies (including cultural,

scientific, and numerical literacies, communication, collaboration, and problem-solving skills, and a [university]-level capacity for critical thinking and ethical reasoning) and advance a host of other attributes, including perseverance, self-discipline, and the ability to multi-task."¹³

As the academic mission of higher education is stressed under new market pressures (both economic and political, as well as demands for pedagogical diversity), institutions have incorporated limited complementary education streams into their programming while also trying to preserve their academic mission.

Forms of micro-credential-like education are already integrated into higher education institutions though they typically fall under personal and professional development certificates and are often delivered through non-credit continuing studies or extended learning programs. Continuing studies or extended learning is often regarded as a separate and distinctive operation from traditional academic programming. It provides "flexible career- and life-enhancing education programs"¹⁴ to the community and acts as an external outreach agent for delivering lifelong learning to individuals who are not enrolled through the formal office of the registrar.



Situating

Micro-Credentials in BC's Universities

The Academic Mission & Micro-Credentials - cont'd

While the *BC University Act* and *Royal Roads University Act* ¹⁵ names a Dean of Continuing Studies, there are no schools or departments under this decanal position nor are there assigned faculty to supervise. Historically, continuing studies has minimal academic oversight from senate and it often employs individuals from business and industry sectors as instructors, not members of faculty associations or sessional unions who have academic expertise and established rights to intellectual property. Whether or not micro-credentials will continue to be under the jurisdiction of continuing studies is yet to be determined as they integrate into for-credit programming.

The ground is shifting with the government's recent injection of targeted funding introducing micro-credentials on a trial basis in BC's public post-secondary institutions. At this time, we understand these are being introduced as non-credit micro-credentials but that status may change as we have seen happen across the country.¹⁶ We anticipate that much of the continuing studies programming that has already been developed at higher education institutions will be re-purposed under the auspices of micro-credentials and shifted to for-credit programming as governments introduce financial incentives to develop them. The long-term strategy for supporting micro-credentials and their integration into accredited programs may well challenge their placement in continuing studies departments. If they continue under the continuing studies arm of a university with crossover to credit programs, then continuing studies will need recalibration to align better within the collegial governance model of the institution.

This integration is transformational; if micro-credentials are to succeed it will necessitate the establishment of standards within and between institutions with mechanisms of oversight in place. As micro-credentials become rolled into the missions of post-secondary institutions, there is real concern that learning outcomes of core academic programs will be unbundled from their current comprehensive degree programs established by faculty and senates in order to generate modular learning programs in profit centres that exclusively serve the vocational interests of business. It is the gold standard **general education component** that gets excised when higher education is sliced into a series of modules. Not only would this transformation mean a real loss in the rich educational experience of students and faculty, it would also be inappropriate for universities to abandon the academic mission for such an underwhelming purpose as feeding the industrial labour machine of the *status quo*. Micro-credentials don't by design embody such a negative purpose as mundane as that. There is potential for real academic value in piloting these programs much like what Simon Fraser University has done with its FASS Forward project with credited micro-credit courses discussed later in this paper.

If such programming is to come to higher education and be successful, then it has to fit within the academic mission and address real world market needs, and that means it has to confer value to students, their employability, and have credibility with prospective employers.

Situating

Micro-Credentials in BC's Universities

The Role of Faculty & Senates

Higher education institutions are autonomous agents that function at arm's length from government and industry. Canadian universities organize themselves in terms of governance structures and decision-making hierarchies and have historically modeled themselves after universities elsewhere in the world. There are common elements adopted across most universities that set them apart from other public and private industries and these relate to the crucial role faculty play in academic decision-making.*

Universities are founded on a model of **bicameral governance** wherein senates and boards of governors share responsibility for decision-making.¹⁷ Under this system of governance, boards of governors make decisions over high-level, non-academic functions of an institution (such as financial and business decisions) while senates preside over the central academic mission of universities. Within senates, it is the faculty who are recognized as subject matter experts and are given responsibility for regulating academic matters. Faculty decision-making over academic affairs occurs at the ground-floor levels of the classroom, department, faculty, college or school, as well as at senate through what is known as **collegial governance**. As the resident experts on all academic matters, faculty make decisions over every aspect of academic programming including establishing credential/degree requirements and developing courses and course content. Because of their academic expertise steeped in research and scholarship, faculty also hold the copyright and intellectual property rights over their academic work.

It is clear that universities will have to decide if micro-credentials are going to be an authentic educational opportunity or simply a fee-for-service revolving door. In order for the programs to have any credibility with students and employers, universities must choose the former:

- Academic senates and institutional governing bodies must have oversight of for-credit micro-credentials.
- Faculty and academic staff, acting through collegial governance procedures, should be involved in the development, oversight, and delivery of all for-credit micro-credential programs.
- The individuals who develop the courses should hold the copyright and intellectual property rights to the content.
- As with other for-credit academic programming, it will need to comply with collegial governance processes and with collective agreements.
- Long-term success will favour working with tenured, tenure-track, and continuing academics over relying on contract academic staff.

*See CUFA BC White Paper on university governance: <https://www.cufa.bc.ca/research-issues/university-governance>

Situating

Micro-Credentials in BC's Universities

The Limits of Micro-Credentials

Micro-credentials may have their own inherent value that can complement higher education but there is caution in proceeding with their development. Prioritizing micro-credentials over conventional higher education risks diluting the quality and value of higher education credentials, unethically influencing decision-making governance in institutions with financial incentives, and compromising the academic mission of learning for learning's sake in the public interest. Micro-credentials cannot replace what is learned through in-depth, time-intensive study. These are robust higher education programs built with credibility and established over decades of rigorous research and accreditation processes. The established timeline for degree programs in Canadian universities involves taking forty classes over the course of four years in increments of 12- or 13-week long semesters.

This model has held for decades despite pressures to reduce the overall length. It's not that institutions are resistant to changing this model in some arbitrary traditionalist hegemony, but that that intensity of curriculum in that period of time is the sweet spot in which a student can reasonably be expected to gain mastery of a subject. Put another way, each course is itself like a micro-credential that takes about four months to master and it takes about forty of these 'micro-credentials' stacked together to achieve a bachelor's degree. Academic quality risks being compromised by further modularizing degrees.

Micro-credentials can have their own inherent value that doesn't require existing academic programming to be fit into a micro-credential model. Much like conventional degree programs, micro-credentials are simply one more unique credential that institutions can offer. They need to be curricularly coherent with value unto themselves. Their stackability needs to be

internally logical—not every Bachelor of Arts has a Master's counterpart; not every Master's degree leads to a doctorate degree; and a Master's degree in English doesn't ladder into a doctorate in Biology. But a micro-credential in English Language could replace TESOL as a ladder into university admissions for second language students or a micro-credential in University Studies could ladder into admissions for non-traditional students. At this time, we are referring to for-credit micro-credentials but there are myriad options for community members to participate in non-credit micro-credentials.

In the best-case scenario where micro-credentials succeed, there are limits to what they can bring to quality education in post-secondary. From this starting point, we suggest micro-credentials will bring as much value as is put into making them successful and only so long as others buy into their value.

We are also concerned that micro-credentials may portend a cynical overreach from government into the machinations of autonomous institutions. Governments have a poor track record of predicting future market needs, often being too slow to react to changing market needs or failing to pick the right winners and losers from the outset. There are many variables that influence the needs of labour and they are sensitive to factors that are cyclical and structural as well as local and global.¹⁸ Micro-credentials will need to be sensitive to market demands while also working within the institution's decision-making hierarchies with faculty and senate. Any implementation rollout beyond non-credit pilot projects will need to be directed by faculty and senates in order to facilitate the integration of micro-credentials into credible (and creditable) higher education programming.

Integrating

Micro-Credentials in BC's Universities

Strategy, Standards, & Transferability

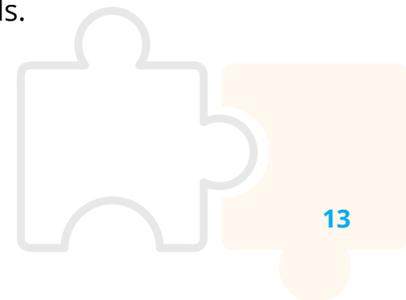
If micro-credentials are meant to be understood as evidence of competency, then employers, governments, and institutions of higher education must see them as credible. There must be reliable and verifiable standards that each micro-credential achieves, which means there must be forethought and strategy involved in their development. This is not to imply that micro-credentials to date lack forethought and strategy. Many institutions are grappling with the *how* and *what* of developing micro-credentials and are doing so within their own institutional context. While that may serve the needs of students and employers in a specific community or institution, such a narrow focus will carry little credibility beyond the university.

Institutions will require policies that clearly define the outcomes of micro-credentials, ensure they fit within institutional mandates, and align with local senate policies and procedures. Best practice suggests collegial governance oversight for reviewing changes to courses and programs as micro-credentials calibrate to meet the emergent needs of industry.

For micro-credentials to have credit recognition towards a degree within an institution, there will be a need to recognize this credit outside the university or even for them to have some recognized transferability that works within the Council of Ministers of Education, Canada (CMEC) recommendations on the Pan-Canadian Protocol on the Transferability of University Credits.¹⁹

The BC Council on Admissions and Transfer (BCCAT) will be an important player in articulating micro-credentials within the BC Transfer Guide framework and has pre-empted some of this development through their 2020 commissioned report by Duklas Consulting “Micro-credentials: Trends in credit transfer and credentialing.” BCCampus would be another supportive agency that can help adopt, adapt, and evolve teaching and learning practices with advanced pedagogies.

To reach their full potential, micro-credentials will have to be more than flash programming developed by picking and choosing from a shopping basket of options and implemented ad hoc within an individual institution. It must involve intra- and inter-institutional communication, a transferability framework, and established standards so that a micro-credential in one subject from one institution is comparable to that of another institution's, much like what is done with degree programs today. An English degree from the University of Victoria, for example, is equivalent to an English degree from the University of Northern British Columbia or from the University of Saskatchewan even if they reflect differences respective to the institution. There may be some trade-off between more structure (like traditional programs) and less flexibility (a key benefit of micro-credentials), but portability and flexibility are critical if we are to advance the full value of micro-credentials.



Integrating

Micro-Credentials in BC's Universities

Strategy, Standards, & Transferability - cont'd

There is very interesting and promising work being done on this front in the FASS Forward project in the Faculty of Arts and Social Sciences at Simon Fraser University.²⁰ The project went through several iterative stages in which students were surveyed about their interest in micro-credentials as part of a series of one-credit micro-credit courses. Following positive support from students, a series of micro-credit course subjects were determined through additional surveying and a pilot project was developed that first ran in summer 2020. Part of the interesting development in this pilot project is that the course topics themselves are developed from student interest. As well, the volume of students who were enrolled from outside the faculty speaks to the appetite for this kind of programming among students and the interdisciplinary nature of micro-credentials. Another valuable reflection was how sensitive the courses were to emerging world events over the summer, like the Black Lives Matter movement and other unanticipated pressing social issues. Students were able to have difficult conversations about emerging subject matter that was time-sensitive and relevant to the course academic content within a supportive environment that has ready access to the university's wrap-around mental health supports for students and faculty. These features (i.e., time-sensitive topics, wrap-around mental health supports, etc.) are not particular to micro-credentials, but are available to all students on campus. It speaks to reinforce why universities are an appropriate institution to hold these types of credentials because of the additional supports available on campuses.

This project is still in its pilot stages and has not necessarily been developed within the framework of recommendations made in this paper. For instance, this project is housed under an existing faculty with credit that counts toward a bachelor's degree but, as a pilot project, the courses have not yet been proposed to senate committees for approval as permanent curriculum. They will still need to find their place within the academic instruction structures of the university. This is not to criticize the project given its strategic development within the culture and needs of the institution. Rather, this project shows what micro-credentials could bring to augment traditional education and there is obvious desire from students seeking this out. We look forward to following the developments of this project closely.



Integrating

Micro-Credentials in BC's Universities

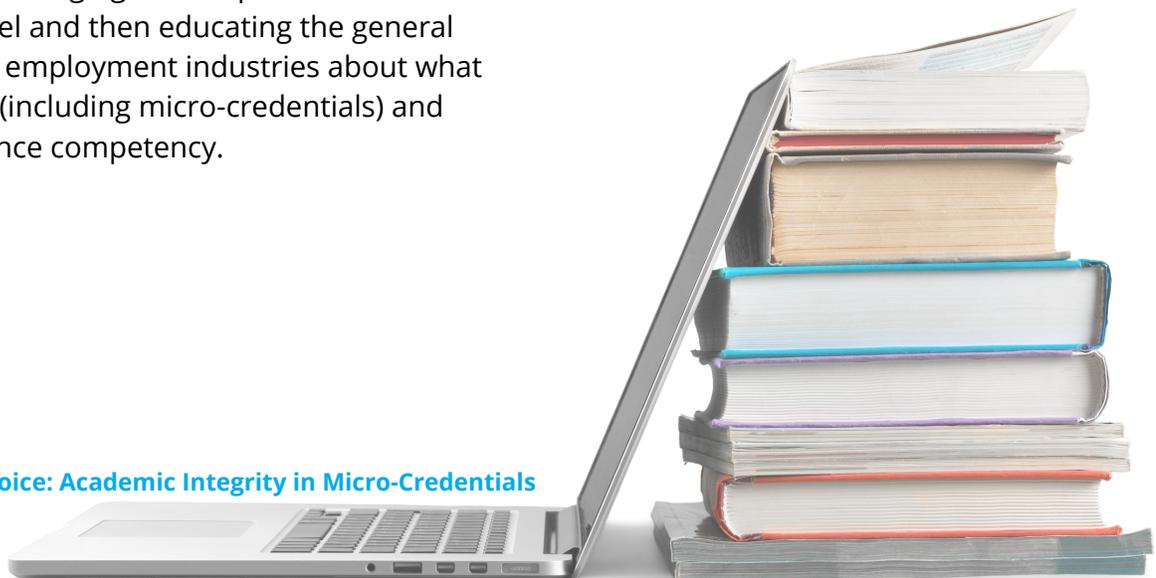
Transcripts & Digitization

Transcripts are the universal translator that articulate the credential within and without the university. Industry reports suggest there exists a skills gap in graduates from higher education programs and yet there may be evidence to suggest the skills gap is perceived rather than a true gap. Indeed, it could be the result of poorly understood transcripts. A report by Alan Harrison commissioned by the Higher Education Quality Council of Ontario in 2017 suggests there is a growing need to overhaul university transcripts so that they better reflect the skills and achievements of graduating students and help to bridge the perceived skills gap for employers.²¹ Harrison suggests "If universities do not begin to expend this effort, the private sector could very well enable students to make matches with employers in ways that render an undergraduate degree much less valuable than it is today" (p.19).

The introduction of micro-credentials into higher education potentially muddies the water when it comes to understanding already-opaque transcripts. If anything, micro-credentials catalyze the need for an overhaul of the transcript system. As with any good systems change management, real work will need to go into changing transcripts at the institutional level and then educating the general population and employment industries about what credentials are (including micro-credentials) and how they evidence competency.

Micro-credentials are often associated with digitization (sometimes called digital badges or tokens) encrypted through blockchain security that render them 'user-controlled' and portable. Traditional transcripts, on the other hand, are held in hard copy under the authority of the issuing institution and made available only at cost. There is increased demand for overhauling transcripts with a mind to digitizing them safely and securely, something that micro-credentials will catalyze.²²

The Association of Registrars of the Universities and Colleges of Canada (ARUCC) has launched MyCreds.ca, a new digital credential wallet system aimed at helping institutions deliver digitized and portable transcripts, including micro-credentials, to online learners.²³ The credential wallet will include digitized versions of their transcripts, credentials, and other documents related to the educational attainment. The credential can be downloaded for the user's access or held within the digital wallet with a subscription fee. In this way, micro-credentials can enter the world of transferability complete with recognized credits that allow movement between institutions.²⁴



Integrating

Micro-Credentials in BC's Universities

Financially Supporting Micro-Credentials

We are in the midst of a global pandemic that has fundamentally rocked our economy and society. What was taken-for-granted before is being questioned now, and the fundamental changes in and challenges to our social fabric has opened a window to change that we couldn't have imagined even two years ago. Now is an opportune and fertile time to consider renewal and reinvestment in higher education.

For micro-credentials to be successful, they require dedicated funding throughout every stage of developing, implementing, and monitoring within the academic institution. Funding to date has come on a temporary basis as institutions get their micro-credential programs in place. It is understood that they are intended to be financially viable and sustainable within the institution. We argue, however, that micro-credentials cannot be subsumed under the business-as-usual base funding model in the current economic circumstances in BC's higher education.

Not after years of chronic underfunding that finds faculty today in reduced capacity to accommodate such transformative changes. There is also much to be said about burdening the administrative responsibilities in institutions, which already strain under the reporting requirements established by governments for tracking purposes.

Financially supporting new programs and faculty is essential to the success of micro-credentials. Sufficient funding from government is needed to ensure true stand-alone institutionalization within post-secondary programs. Without adequate investment, establishment of micro-credentials will increase workloads for faculty and administrations at the ground floor and take away from the capacity needed to run current program offerings. Sufficient funding will maximize program sustainability, ensuring that micro-credentials can succeed.



Concluding Remarks

Summary

Micro-credentials are emerging as a new kind of education strategy in the post-secondary sector that seek to reconcile market demands for a skilled workforce within the academic mission. They open the possibility of enhancing advanced education outcomes through learning new skills, pivoting to new fields, and accessing education without engaging in full formal programs. They are flexible and responsive to industry needs and meet the challenge of upskilling and reskilling workers in a time-sensitive manner. However, micro-credentials are not without challenges. They potentially strain the academic mission and autonomy of universities. There are valid concerns that prioritizing micro-credentials over conventional higher education risks diluting the quality of and value of traditional credentials. Micro-credentials must not replace traditional educational credentials, which are more comprehensive in nature and offer a broad suite of skills suitable to meet many emergent market demands. However, there are limits to higher education that micro-credentials can satisfy.

Labour trends suggest the future of work will overwhelmingly require some level of advanced education training and yet university-level degrees have trade-offs that make them not suitable to everyone's needs. Micro-credentials serve cross-sections of society from those who are entering the workforce for the first time, to those who already have advanced education in industries that require regular upgrading in skills, as well as addressing needs for people to pivot to new careers.

Micro-credentials can be successfully introduced within the post-secondary sector, but they need to be done strategically.

Throughout this document, we

- situate micro-credentials within the context of BC's public research universities;
- highlight the potential benefits and shortcomings of micro-credentials;
- articulate the role of faculty and senates in the development and delivery of micro-credentials;
- conduct an environmental scan of micro-credentials in BC post-secondary institutions;
- inform best practices to government and university administrators in further developing micro-credentials.

CUFA BC is committed to a strong and well-governed, well-supported public university system. We look forward to working with government, university administrators, and other stakeholders to ensure a high quality post-secondary system that embraces an educated society.

We advocate for the necessary supports to be in place in order for micro-credentials to succeed for faculty and students, university communities, as well as administrators, governments, and industry partners.

Below, we make recommendations on how to integrate micro-credentials into BC's research universities. We highlight the challenges in reconciling micro-credentials within the academic mission and pose further questions that will help us better elucidate the role and benefits of micro-credentials.

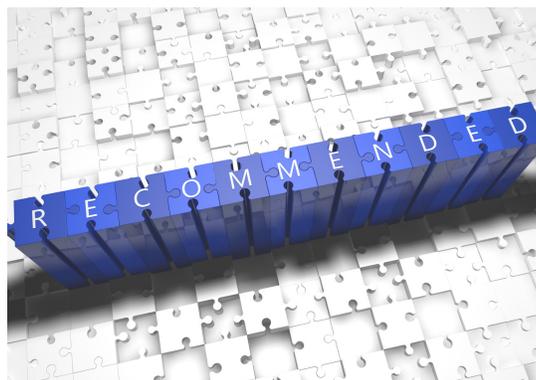


Concluding Remarks

Recommendations

CUFA BC makes the following recommendations to governments, institutions, faculty, and other stakeholders as they design credited micro-credentials within academic programs.

1. Institutions and governments must ensure that micro-credentials fit within the academic mission of the university and address real world market needs.
2. Institutions will require policies that clearly define the outcomes of micro-credentials, ensure they fit within the institutional mandates, and, if credited, align with senate policies and procedures.
3. Academic senates and institutional governing bodies must have oversight of for-credit micro-credentials.
4. Faculty and academic senates, acting through collegial governance procedures, should be involved in the development, oversight, and delivery of all for-credit micro-credential programs.
5. All levels of design and implementation must affirm collegial governance, comply with collective agreements, and favour tenured, tenure-track, and continuing academics over relying on contract academic staff.
6. The people who develop micro-credentials should hold the copyright and intellectual property rights over content.
7. Micro-credentials must have standards that are both reliable and verifiable to ensure credibility beyond the university.
8. Micro-credentials (credit and non-credit) will require dedicated funding throughout every stage of developing, implementing, and monitoring within the university.
9. Governments and institutions must provide long-term funding to ensure program sustainability and success.



Concluding Remarks

Challenges

CUFA BC suggests further challenges for governments, institutions, faculty, and other stakeholders to consider as they design credited micro-credentials within academic programs.

1. There is concern that credit micro-credentials risk diluting the quality and value of higher education credentials, unethically influencing decision-making governance in institutions, and compromising the academic mission of the university.
2. If micro-credentials continue to be housed in continuing studies departments while granting credit toward degree programs, then continuing studies will need recalibration to better align within the collegial governance model of the institution.
3. There may be need to develop a transfer system to recognize credited micro-credentials as students transfer during their degrees.
4. A transferability framework may be needed for credited micro-credentials as well as established standards. There may be some trade-off between more structure and less flexibility, but can be achieved on balance without compromising the flexible value offer-credit micro-credentials.
5. Credited micro-credentials potentially muddy the water when it comes to their inclusion in university transcripts. Real work will need to go into changing transcripts at the institutional level and then educating the general population and business industries about what credentials (including micro-credentials) are and how they evidence competency. This transcript transformation ties into the development of safe, secure digitized transcripts.
6. Funding challenges already exist in universities. Without sufficient funding, shorter programs with high turn-over baked into the structure could create a second-class degree parallel to conventional education, exacerbate workloads for faculty and administrators at the ground floor, and potentially exacerbate the issues of overreliance on contract faculty to fill gaps in workload.
7. We must ensure the creation and implementation of credited micro-credentials avoid creating an academic gig economy that de-professionalizes program creation and delivery.



Concluding Remarks

Further Questions



The following questions are a starting point for institutions, governments, faculty, and other stakeholders to consider in designing credited micro-credentials within academic programs.

Understanding the value of a micro-credential

1. What add-on value will micro-credential bring to conventional education?
2. What will micro-credentials mean to a prospective employer?
3. How will we assess the success of skills competency offered by micro-credentials?
4. Will it make a difference if the micro-credential is granted from a small, rural institution versus a larger metropolitan institution?

Understanding how micro-credentials will interact with credits and transfer

5. Will institutions accept one another's micro-credential credits with transfer credit?
6. How will a micro-credential be presented within the transcript framework?
7. How can the structure of transcripts better articulate the skills achieved in a degree or micro-credential?

Understanding how micro-credentials fit into the university

8. Within a university, who will be responsible for developing and delivering micro-credentials (faculty, sessionals, other)?
9. How will micro-credentials be delivered (online vs in-person, assuming a post-pandemic world)?
10. Who will own the copyright and intellectual property rights to micro-credential content?
11. Will micro-credential programs that offer credit go through senate?
12. What will be the cost for a micro-credential? Will it be based on costing tuition with per-credit units? Will there be a differential for domestic and international students?
13. Should micro-credentials be developed within continuing studies departments, even if credit is offered toward academic programming?
14. For non-credit micro-credential programs, will programs be available to people who are not enrolled in the university or only eligible for students enrolled in university programs?
15. Will enrollment go through a registrar's office?

Resources

Appendix: Environmental Scan of Micro-Credentials in BC

<i>Institution</i>	<i>Micro-Credential Program</i>	<i>Government Identified Focus Areas or Topics</i>
British Columbia Institute of Technology	Skills for the digital world – for learners changing careers, seeking to reskill and recent high-school graduates to experiment with the facets of digitalization such as coding, hardware, electronics or design	Essential Workplace Skills
British Columbia Institute of Technology	Essentials in natural resources and environmental protection – introduction to an overview and the essential skills and techniques commonly used in natural resources	CleanBC/ Climate Action
British Columbia Institute of Technology	Introductory studies in mass timber construction – introduction to mass timber products and building systems course, plus several preparatory modules focused on training gaps as identified by the industry	Technology and Emerging Economies
Camosun College	Advanced skills for clean energy and efficient buildings – designed to provide short, relevant credentials in clean energy, efficient building design and high-performance building construction	CleanBC/ Climate Action
Coast Mountain College	Exploring health careers – introduction for learners to explore careers in the health sector (e.g., nursing, medical lab assistant)	Health and Human Services
College of New Caledonia	Core skills for a digital world - digital literacy skills, communications, collaboration and content creation	Essential Workplace Skills
College of New Caledonia	Core skills for data literacy - fundamental skills in locating, generating, interpreting, evaluating, explaining and presenting data for decision-making as a core specialty skill across a range of industries	Essential Workplace Skills
College of the Rockies	Skills for home support – a range of skills training for individuals providing home support care both within Indigenous communities and for private home-care employers within the East Kootenay	Health and Human Services

Source: BC government announcement on micro-credential funding from February 8, 2021: <https://news.gov.bc.ca/releases/2021AEST0012-000225>



Resources

Appendix: Environmental Scan of Micro-Credentials in BC

<i>Institution</i>	<i>Micro-Credential Program</i>	<i>Government Identified Focus Areas or Topics</i>
Emily Carr University of Art + Design	Web and digital design skills for transitioning online - entry-level employment skills for website design/development, computer programmer and media developer	Essential Workplace Skills
North Island College	Skills for film and television – pilot project involves the development, testing and piloting of film and television crew skills training within a micro-credential framework	Health and Human Services
North Island College	Medical terminology skills for office administration – skills and knowledge of medical terminology as used in the health-care sector to help provide opportunity for employment in administrative assistant and clerical positions	Essential Workplace Skills
Royal Roads University	Workplace communications skills - skills in writing, supervisions, decision-making and digital and social media communication	Essential Workplace Skills
Royal Roads University	Leading projects in a digital environment – fundamental skills, concepts, tools and techniques to successfully manage and lead digital transformation projects and teams through changing conditions in a digital environment	Essential Workplace Skills
Selkirk College	Core skills for facilities maintenance – entry-level skills and experience to prepare learners for entry-level positions in the building/facilities maintenance industry	Construction Maintenance
Selkirk College	Core skills for refrigeration occupations – training for workers and learners throughout the province with skills and competencies to enter and advance in this sector	Construction Maintenance
Thompson Rivers University	Renewable energy fundamentals for electricians – for ticketed or apprenticing electricians to be familiar with the theory and practices required for safe, efficient designs and installations with emerging technologies	Construction Maintenance

Resources

Appendix: Environmental Scan of Micro-Credentials in BC

<i>Institution</i>	<i>Micro-Credential Program</i>	<i>Government Identified Focus Areas or Topics</i>
University of British Columbia	Skills for assessing climate change and adaptation – skills to assess climate change vulnerability, identify adaptation options and select actions that are important for land management and other sectors	CleanBC/ Climate Action
University of British Columbia	Skills in blockchain foundations and applications – preparing learners for blockchain-related positions, such as blockchain business analysts, blockchain data security and privacy professionals	Technology and Emerging Economies
University of British Columbia Okanagan	Critical skills for communications in the technical sector - communication skills (e.g. technical writing, editing, presentations, team communications) for new and mid-career learners in science and engineering sectors	Essential Workplace Skills
University of British Columbia Okanagan	Skills in industrial automation: programmable logic controller – training for engineering and technology students and professionals looking to upskill or transfer to a career in emerging industrial automation sectors	Technology and Emerging Economies
University of the Fraser Valley	Digital marketing skills - skills in web writing, InDesign, photoshop, wordpress, MS teams, marketing and digital collaboration	Essential Workplace Skills
University of Victoria	Skills to support independent living – upskilling and incorporating skills for home-care aides to prevent falls among frail older adults and persons with disabilities who live in their own homes and receive home support services.	Health and Human Services
Vancouver Island University	Skills development for building support workers (BSW) – standardized BSW blended program, including a stand-alone COVID-19 module for enhanced specialized cleaning techniques and best practices during COVID-19 and other pandemics	Construction Maintenance

Resources

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Resources

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University of British Columbia Extended Learning: <https://extendedlearning.ubc.ca/about-us/our-history>
University of Northern British Columbia Continuing Studies: <https://www2.unbc.ca/continuing-studies>
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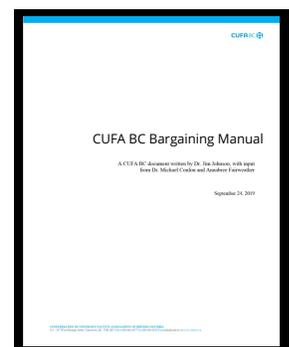
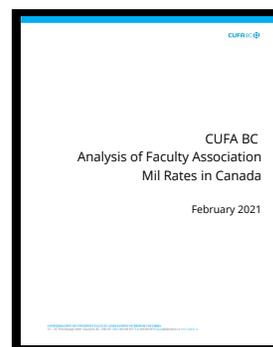
About CUFA BC



The Confederation of University Faculty Associations of British Columbia (CUFA BC) represents more than 5,500 faculty members (professors, lecturers, instructors, and academic librarians) through their unionized faculty associations at British Columbia's five research and doctoral universities: University of British Columbia, University of Northern British Columbia, University of Victoria, Royal Roads University, and Simon Fraser University.

CUFA BC has existed for fifty years and continues to promote the value of post-secondary education, academic freedom, and research to the provincial government and wider public by representing the voice of faculty members in provincial decision-making. As their provincial voice, CUFA BC is committed to promoting high quality education that builds upon the existing infrastructure of BC's post-secondary institutions. Faculty bring a wealth of expertise and credibility to the development and delivery of educational programs and as such are well-equipped to develop and implement micro-credentials. We believe faculty involvement will be critical to ensuring their success.

Other CUFA BC publications:





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ON ACADEMIC CREDIBILITY IN MICRO-CREDENTIALS AT BC'S RESEARCH UNIVERSITIES

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