

**UNIVERSITY COUNCIL
ACADEMIC PROGRAMS COMMITTEE, AND
PLANNING AND PRIORITIES COMMITTEE
REPORT FOR INFORMATION**

PRESENTED BY: Alison Oates, Chair, Academic Programs Committee

DATE OF MEETING: October 21, 2021

SUBJECT: **Microcredential framework development and pilot programs**

COUNCIL ACTION: **For Information Only**

SUMMARY:

This item serves to update Council on the development of a University of Saskatchewan microcredential framework and associated pilot.

ATTACHMENTS:

1. Microcredentials framework development and pilot programs report

Microcredential framework development and pilot programs

1. Context

With increased changes to the labour market caused by globalization, technological advances, and the more recent impact of the COVID-19 pandemic, the opportunity for the University of Saskatchewan to provide flexible access to lifelong learning in response to employer and community need has grown. This access is essential as the economy experiences iterative shifts requiring new and evolving competencies. Microcredentials are one way in which the institution is responding to this, as a complement to traditional academic programming, and continuing education.

There has been a lack of consensus in Canada and internationally on the defining features of microcredentials and a paucity of information as to their:

- academic rigor
- learning outcomes
- requirements

This has undermined the perceived value of microcredentials for students and employers.

A summary of microcredentials offered in selected Canadian universities as of early September is included in the appendix. Much of the activity in other provinces has been fuelled by significant provincial government investments (e.g., Ontario invested almost \$60 million in 2020, B.C. invested \$4 million in February 2021, Alberta announced an investment of \$5.6 million on August 30th, 2021). USask is actively considering investment in microcredentials in FY 2021-22.

The Government of Saskatchewan's Ministry of Advanced Education (AE), in partnership with the Saskatchewan Higher Education Quality Assurance Board initiated work on microcredentials in 2020. This will develop a common language, framework and principles for microcredentials in Saskatchewan post-secondary institutions. This complements similar work in other provincial jurisdictions (e.g., [eCampus Ontario](#)). USask has provided input to AE as they advance this work.

2. What is a microcredential?

The purpose of microcredentials varies across the higher education sector including:

- developing transferable skills with existing students;
- providing new pathways to a formal qualification for new students; and
- updating previous qualifications for returning students.

While the purpose of micro credentials vary, two features are essential¹:














- **Narrow in scope:** Microcredentials focus on a limited set of competencies
- **Short completion time:** A narrower set of competencies allows for faster completion

There are also elements common to micro credentials:

- bound to industry and/or community needs² thus demonstrating **relevance** of the credential to society and/or the labour market
- **assessment of skills and abilities** against transparent standards must occur for a credential to be awarded³, rather than it being granted only for participation, or logged ‘seat time’. For Canadian employers, relevance and assessment are particularly favourable elements of microcredentials¹.
- **stackable** to achieve a larger credential
- **flexible** in timeframe for completion and mode of study
- digital credentials or badges are a typical, though not essential, **credential form**

These varying elements are summarized the microcredential typology⁴ in table 1 with potential variance on each element described by row. As evidenced by this typology, the type and nature of programming called microcredentials in Canada remains broad. Arguably, as you move from left to right in this table, the accessibility and value proposition of microcredentials increases.

Table 1: Microcredential typology

Demonstrated Relevance	 Some evidence of need by industry, employers and/or the community	 Formal endorsement by industry, employers and/or the community	 Developed in partnership with industry, employers and/or the community
Assessment of Competence	 Participation only, no assessment of competence	 An assessment required (e.g., exam)	 Authentic, competency-based assessment
Stackability	 Stand alone credential	 Modules leading to microcredential	 Part of a sequence of learning, leading to a larger credential
Flexibility	 Fixed pace, cohort learning	Both fixed pace and self-paced learning.	 Self paced, independent learning
Credential Type	 Paper credential	Both paper and digital credentials could be issued.	 Digital credential

¹ Pichette, J., Brumwell, S., Rizk, J., Han, S.(2021) *Making Sense of Microcredentials*. Toronto: Higher Education Quality Council of Ontario.

² See, for example NZQA. (n.d.). *Micro-credentials*. [New Zealand Qualifications Authority](#); eCampusOntario. (2019). *Micro-certification Principles and Framework*. [eCampusOntario](#).

³ See, for example, Duklas, J. (2020) *Micro-Credentials: Trends in credit transfer and credentialing*. [BC Council on Admissions & Transfer](#); Futures, H. S., Andersen, T., & Larsen, K. N. (2020). *A European Approach to Micro-Credentials*. [European Commission](#); and Berry, B. & Cator, K. (2016). *Micro-credentials: Driving teacher learning & leadership*. [Digital Promise and Center for Teaching Quality](#).

⁴ Adapted from Pichette, J., Brumwell, S., Rizk, J., Han, S.(2021) *Making Sense of Microcredentials*. Toronto: Higher Education Quality Council of Ontario.

3. Microcredentials at the University of Saskatchewan

Microcredentialling at the University of Saskatchewan aligns with the provincial and national developments and is informed by research and promising practices in the sector.

A working group of Academic Planning Committee (APC) and Planning and Priorities Committee (PPC) was established in fall 2020 and has:

1. Created an institutional definition and rationale of microcredentials
2. Developed draft principles for microcredential development
3. Implemented a pilot for the 2021/22 academic year. Given the need to maintain academic standards and reputation, this pilot will allow for:
 - Finalization of guidelines and processes for broader implementation
 - Confirmation of needed support and infrastructure
 - Implementation of approval processes and sustainable costing models

University of Saskatchewan Microcredential Definition

A microcredential is a certification of an authentically assessed⁵, specific, and relevant set of skills or competencies

Rationale

Microcredentialling positions the university as responsive to:

- ⇒ increasing need and demand for life-long learning
- ⇒ need for individuals to pivot and thrive in an uncertain and disrupted labour market
- ⇒ changing societal, economic, and social needs through provision of quick, flexible, and targeted education for in demand skills/competencies
- ⇒ desire to strengthen connections with industry, professions, and community
- ⇒ skills focus provincially, nationally, and internationally⁶
- ⇒ need for income generation

Microcredential Principles

- **Skills based:** centered on defined skills⁷
- **Specific:** narrow focus on a set of skills or competencies
- **Relevant:** endorsed by industry/employer or community partner
- **Authentically assessed⁵:** to confirm achievement of outcomes

⁵ Authentic assessment is a key feature that differentiates MCs from seemingly similar continuing education style offerings and is essential for upholding/ rationalizing a formal stand-alone credential for a small-scale offering

⁶By way of example, these employers have moved to competency (not credential) based recruitment and/or skills and competency-based performance management: Vendasta, the Government of Saskatchewan, TD Bank, Ernst and Young, RBC

⁷ European Skills, Competences, Qualifications, and Occupations taxonomy and ESDC skills and competency framework. This alignment is key to portability and value

- **University-level:** outcomes consistent with university level study
- **Validated:** a university credential will be awarded on completion
- **Smaller Scale:** short completion time, 50-150 notional learning hours
- **Accessible:** offered in varied formats, not required to align with academic terms

Key to the University of Saskatchewan approach to microcredentials is the focus on **supporting development and assessment of skills and competencies** endorsed as relevant by our partners. **Intentional microcredential design, and instructional and assessment approaches** that will support participant learning and demonstration of achievement will be essential. Emerging from the pandemic we recognize more than ever the interdependence that exists between our institution and our community. With this recognition comes a need to respond to and work in partnership with employer and community partners to identify existing competency development needs that can be addressed in an agile fashion through microcredentialing.

Table 2 highlights some key differences between USask microcredentials and USask certificates.

Table 2: Key differences between microcredentials and [certificates](#)

	USask Microcredential pilot	USask Certificates
Purpose	Quick upskilling or reskilling	Recognition of learning in a focused area of study
Focus	Narrow: on defined complex skills and competencies	Broader: knowledge and skills lead to a more in-depth understanding of the subject area
Duration	Short: 50-150 notional learning hours (and even fewer instructional hours)	Wide range, but requires completion of 6-30 credit units ⁸ (72 to 360 instructional hours plus 216 to 1000 learning hours in addition)
Level	Consistent with University level, non-degree	Undergraduate, Graduate, or non-degree
Industry	Formal endorsement by industry partner	No formal connection with industry though at least some are developed with industry input
Assessment	Authentic assessment only	Various
Schedule	Timing not dictated by academic terms	Tied to academic terms
Format	Cohort learning (self-paced option in future)	Course based
Audience	External, working professionals	Current students and working professionals
Relationship of learner to institution	More open admission, student fees are low or not levied, limited access to typical student services	Students go through admission process and meet set admission requirements, are assessed fees and have access to most services

⁸ Excluding non-degree graduate certificates (only offered to existing students)

4. Pilots

Three pilot microcredentials targeting adult learners with a foundation of previous post-secondary study will be offered as non-degree credit.

- **School for Environment and Sustainability:** A microcredential in communication, designed to address a need that exists amongst environmental professionals from many industries who increasingly need to communicate strategically, meaningfully, and compellingly with external audiences.
- **Edwards School of Business:** A microcredential based on their Leadership Development Program. This group has long standing success in continuing professional development through Edwards Executive Education, designed to meet existing needs of employers in Saskatoon and beyond. The pilot will help establish how microcredentials will add to their existing offerings and provide additional value in developing verified achievement of competencies for leaders in our communities.
- **Global Institute for Water Security:** A microcredential that draws on the international profile of the Institute's faculty, and the university's international ranking in this area. At present, we are identifying, with partners, gaps in competence that a microcredential designed and delivered by world leading experts in water security could address.

These pilots will allow for testing and refinement of the definition, rationale and principles and will be used to create a microcredentialing framework that will go to University Council for approval. The framework, alongside established support, infrastructure (including a platform for digital badging), and a revenue model will enable broader and sustainable implementation.

5. Approval Process for the Pilot

For this pilot project, the micro credential programs being developed will be [non-degree level](#). USask currently has non-degree level programming in the form of non-degree level certificates. These certificates are discrete programs that are offered by the institution and represent completion of learning appropriate for post-secondary training but that are not classified as degree-level. Though the micro credentials being piloted are not of the same scale or scope as existing non-degree level certificates, they share the characteristics of being discrete credentials and as encompassing learning appropriate for post-secondary training.

For these reasons, micro credentials developed and offered through this pilot will follow the same approval pathway as non-degree credit certificates, that is, they will be approved by the vice-provost academic and provost, following consultation with the registrar and the APC. The pilot project process was reviewed by the PPC (September 22) and APC (September 22) and will be reviewed by the Governance Committee to seek the committees' support. Following the completion of the pilots, and upon presentation of the micro credential framework to Council, the approval pathways for micro credentials will be presented by the Governance Committee to Council for approval.

6. Designing for value now and in the future

A number of future developments are envisaged for the University of Saskatchewan microcredentials that will strengthen our university's ability to set the standard in learning:

- **Bridge to degree credit.** This would mean that an individual completing a microcredential could use it as a means to gain access to a degree program they would otherwise not have qualified for and/or stack several microcredentials to achieve a larger credit bearing credential (e.g., a certificate). This could serve to open university credentials to new audiences, extending our enrollment and service to the community, including Indigenous and other communities where access to post-secondary has been challenging. This reflects our intent to lead in an inclusive manner and hold equitable access to our programming as a core value as we emerge from the pandemic.
- Clear and assessed outcomes enables creation of offerings where learning experience/hours are not required, and the purpose is **competency based or skill proficiency**. This could enable validation of learning already achieved through work or other means and could enable access to or advancement of degree level study.
- **Extended to current students** as evidence of achievement of skills within their degree. This may be of particular value for graduate students seeking to enhance their employability by highlighting the professional skills gained in their graduate education.

These developments will see the focus of the University of Saskatchewan microcredential offering extend to include developing transferable skills with existing students, providing new pathways to a formal qualification for new students, and updating previous qualifications for returning students.

7. Investing in microcredentials

Parallel to the creation of the micro credential framework, the university's resource allocation model is being explored with a view to creating incentives for non-degree delivery. In the interim, funding from the curriculum innovation fund is being used to support development.

8. Summary

USask is advancing microcredential development through a considered approach focused on serving the interests of prospective students, colleges/schools, the institution, employers and the community. The establishment of a clear rationale, principles and our pilot process will create a strong foundation for long-term success. Table 3 outlines how USask's current approach and future directions aligns with the microcredentialing typology outlined earlier with green indicating the approach in our current pilot and yellow the planned future developments. Notably, our focus is on moving to include offerings that align with descriptors in

the righthand column to increase the access and strengthen the value proposition of USask microcredentials.

Table 3: Usask pilot and future developments in microcredentials

Demonstrated Relevance	Some evidence of need by industry, employers and/or the community	Formal endorsement by industry, employers and/or the community	Developed in partnership with industry, employers and/or the community
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Key: current pilot future developments

9. Project Timeline

A multi-year project is underway to advance microcredentials at the University of Saskatchewan (see Table 4).

Table 4: Project timeline

	2020			2021			2022			2023
Fall (F), Winter (W), Spring/Summer (S/S)	F	W	S/S	F	W	S/S	F	W	S/S	
Working group established										
Pilot parameters created										
Pilot 'course' development										
Pilot offerings										
Evaluation										
Framework finalization										
Governance approval sought										
Potential for resource allocation reset for incentives										
Offerings in new framework										

Appendix: September 2021 Microcredential Offerings at Select Canadian Universities

Institution	Department	Microcredential & description	Links
Updating previous qualifications for returning students			
Laval	Department of Pharmacy	Pharmaceutical care focused on mental health recovery \$850, ~70 hours. 30 hours eligible for pharmacy continuing education Participation and assessment required to achieve credential	Course info MC Defined
Laval	Department of Teaching and Learning Studies	Teach social and emotional skills in elementary school \$500, ~ 70 hours Participation and assessment required to achieve credential	Course Info MC Defined
Laval	Department of Forest Science	Wetland Characterization \$1,000, ~90 hours Participation and assessment required to achieve credential	Course Info
UBCV	Extended Learning	Block Chain Innovation and Implementation \$2,599 (two courses), ~50 hours Based on completing online modules and final design project assessment – group participation not necessary	Program Link
UBCO	Earth, Environmental and Geographic Sciences	Critical Communications Skills in the Technical Sector \$150 per module, \$1,200 for the full MC (8 modules), ~50 hours Based on participation and assessment, includes final design project	Link
U Calgary	Continuing Education	Project Management for Non-profit sector \$1,400 for the MC (3 courses), ~ 28 hrs per course, ~84 hrs for the MC Participation and assessment required	Program link MC info
UofA	Extension – Continuing and Professional Education	Leadership for the Future ~42 hours, 2 core courses(14 hr each) and 2 electives (7 hours each)	Link
U Regina	Continuing Education	Responsive Management Project Compliance High Impact Leadership \$645 per course. 3 course per micro-cred, ~42 hours Participation based only. Does not include assessment.	Definition

Institution	Department	Microcredential & description	Links
Dalhousie	Executive Education Faculty of Management	Using Data, AI & Analytics to Lead Organizations Digital Marketing and Sales \$695 each, 4 courses, ~20 hours Based on completion of online module including assessment activities	Program Info Dal MC Definition
McMaster	Continuing Education In partnership with the National Institute of Health Informatics	Data Analytics – Health Informatics \$1,300 for the MC (\$500/course), ~40 hours (13 hrs each) Attendance based only. Does not include assessment	Course Info Description
U Toronto	Continuing Studies	Business Analysis Records Management Six Sigma Methods Project Management Cloud computing Cyber-security \$559 per course, 15 hours. Assessment based. Each module has an assessment	Definition and course list
Developing transferable skills with existing students			
Waterloo	Work Integrated Learning	Communication and /or Collaboration, No cost. Must complete a professional skills course and be assessed by WIL employer.	Description
U Calgary	Several departments offering small scale internally facing MCs	Examples: Chemistry TA training program Electrical Engineering – Foundations of Software Office of Advancement – Advancing UCalgary Badge Residence Services – Residence Appeal Board Member Badge School of Medicine – Project Management	Link