



Targeted call for FSC Project Partners

Instructions to complete the application form

Please refer to the Future Skills Centre's (FSC) **Targeted Call for FSC Project Partners Guidelines** document when preparing your application.

This application form is structured to help you address the selection criteria for this call and give reviewers easy access to your project information. This form is divided into the following sections:

- Part 1 - General information
- Part 2 - Project summary
- Part 3 - Project details
- Part 4 - Project work plan and budget
- Part 5 - Declaration

If you would like to request accommodations or other types of support, please contact Maysa Mourad by email at targetedcall@fsc-ccf.ca or by phone at 437-331-0613.

If you have any questions while compiling your application, you may contact our team at targetedcall@fsc-ccf.ca. We would be happy to answer any questions.

PART 1 - GENERAL INFORMATION

1. Lead organization

Name of lead organization

Humber College Institute of Technology and Advanced Learning

Name of project lead

Geraldine Babcock

Project lead's preferred method of contact (email address and/or phone number)

Geraldine.babcock@humber.ca

2. Proposed project

Project title

Scaling the Digital Fluency for the Workforce (DFW) Micro-Credentials

Project start and end dates

February 1, 2022 to Sept. 30, 2023 (activities will overlap with current contract ending May 2022)

Projects must end no later than September 30, 2023.

Amount requested from FSC (total)

\$832,502

Project partners and their location

- College Boreal, locations in Toronto, Peel and in major centers across Northern Ontario for the French language version of the DFW and drawing on relevant stakeholders in the community (GTA and Northern Ontario)
- Program Advisory Committee - consists of community and industry partners from the GTA.
 - Community partners include Pickering Public Library, Albion Boys and Girls Club, Rexdale Women's Centre, YMCA, John Howard Society of Toronto, Skills for Change, Rexdale Community Health Centre, Achev, Renewed Computer Technology (RCT), Delta Family Resource Centre, Toronto Centre of Learning & Development (CL&D), City of Toronto,

Arab Community Centre of Toronto (ACCT), Hospitality Training Action Centre 75 (HTA 75)

- Industry partners include RBC, Shopify, Go Logistics and DOCUdavit
- Expanding Project Advisory Committee to include stakeholders in the skilled trades sector for this project

PART 2 - PROJECT SUMMARY

1. Proposed project “one-liner”

How would you describe your new project in one sentence? (GERALDINE)

Humber proposes to test a blended model of delivery of the DFW micro-credential, expand its reach to Francophone learners, and create a pathway micro-credential for the skilled trades.

(30 words maximum)

2. Proposed project summary

How would you describe your new project and how it builds on the testing and learning of your current project to date?

We suggest that this summary covers the main information about how your new project addresses all selection criteria of this targeted call.

In-person testing was an original goal of the DFW project, however due to COVID-19 this was not possible. As we move to “Level Four” guidelines, we plan to test the delivery of the DFW micro-credentials through in-person learning and online, in a blended model. We propose serving 200 individuals. This will provide further evidence related to the third research area, on the pedagogy of learning; specifically the kinds of learning supports, learning environments, and pedagogical tools that are effective for upskilling individuals displaced from the workforce and lacking foundational digital fluency skills. The project will continue to focus on those developing needed essential skills, youth, newcomers and racialized individuals in particular, for consistency and continuity between the data sets of both projects.

The current project has served 300 unemployed workers to date and the learners engaged in the modules for each of the three micro-credentials have successfully acquired the competencies of the micro-credentials they’ve earned. Taking the model and adapting and tailoring it to a key industry sector needing a digitally skilled talent pool, to remain relevant in the global market place, will assist both the worker and the employer in adapting to and thriving in the post pandemic economy.

Exploring the need for a Francophone version of the DFW micro-credential will allow Humber to work collaboratively with College Boreal to potentially expand the opportunity for this foundational digital micro-credential to other Ontario jurisdictions and will provide the capacity for Humber to better scale this micro-credential across Canada.

(250 words maximum)

3. Additional scope

How does your new project go beyond the scope of your current FSC-funded project?

The additional scope may include expanding or extending a project model, its principles and/or components. For example, it may include expanding the project to new regions or jurisdictions, including new or larger target populations, and testing different delivery formats to understand what works to address demands. This would assume the potential for bringing additional partners to deliver the project at a broader scale. The additional scope must be grounded in new concrete learning questions to contribute to your work and of others in the skills ecosystem.

Delivering a blended model of the DFW curriculum will help Humber collect profile data on learners that learn best with this method. Information collected will be critical in assisting us in determining the value of each of the three modalities applied (e.g. asynchronous, synchronous – fully online, and synchronous - blended).

Humber will develop a complementary micro-credential for individuals seeking pathways for employment in the skilled trades. We will assess how the DFW curriculum is capable of meeting the digital requirements of a specific sector, and add components for the trades. The sector is undergoing digital disruption and workers will need to have digital competencies to adapt to shifts in the adoption of digital solutions as new innovative technologies emerge.

Humber will work collaboratively with our collaborative partner to explore the need for a French DFW micro-credential in Ontario, with a focus on the GTA and Northern communities.

(150 words maximum)

4. Importance of the additional scope

Why is the additional scope of your project important to your organization, sector and target populations? Why is it timely?

Due to the pandemic, the proposed in-person/on-line blended mode of delivery was cancelled. Having the opportunity to deliver in this mode will help us to fully assess

the three delivery planned modalities.

Building on the current DFW curriculum to meet the needs of a specific sector will help us determine how foundational the material is and if new curriculum components are required to upskill workers in that specific sector, using the skilled trades as a test sample. Focusing on the trades is timely, as there is a great need to fill positions in this sector as the current workforce is aging out of the sector and simultaneously facing digital disruption.

Translating the DFW curriculum into French will allow Humber to scale this micro-credential to different geographic communities in Ontario and Canada. With the collaboration of College Boreal, the micro-credential will be able to be delivered in other regions.

(150 words maximum)

PART 3 - PROJECT DETAILS

In this section, please provide information about how your new project supports each of the selection criteria of this targeted call.

We provide prompting questions to help you address all criteria in the application guidelines. You may prepare this section following the prompting questions in sequence or using your own sections and narrative.

Although you have flexibility regarding the format for this section, please make sure that you address all criteria according to the prompting questions. Reviewers will assess your application by scoring each criterion individually.

This section should not exceed **seven** pages. We anticipate that most proposals will present this section in **five** pages.

RELEVANCE

The success experienced by the DFW learners who have achieved foundational digital skills through the three digital micro-credentials has led Humber to explore opportunities to adapt and scale this project further. Humber has exceeded its target numbers of learners in the current project and there are many more unemployed workers who have expressed interests in further offerings of the DFW sessions. It is clear that the need for this accessible micro-credential is significant.

The current economy simultaneously requires and needs both advanced technical development and skilled talent to remain competitive. Much investment by the Innovation, Science and Economic Development Canada (ISED) is currently focused on the expansion of advanced manufacturing to make sure that Canada remains

competitive in the global market. Workplaces now rely on a range of skilled trades and advanced technology skills. One of the main hurdles identified, is the need to address the lack of a digitally skilled workforce (Report from Canada's Economic Strategy Tables: Advanced Manufacturing, Oct 2018, <https://bit.ly/3GJSKBV>). In addition, there is investment at all levels of government in public infrastructure and the demand for workers in the skilled trades with up-to-date skills is critical to the success of such emerging initiatives. The same reality applies to the investment in transportation infrastructure across Canada (PM Trudeau, "New Public Transit investments to build strong communities, fight climate change and create new jobs", Feb 2021, <https://bit.ly/3myxJIR>).

Moreover, the Conference Board of Canada has identified that workers in the skilled trades now require "seven core 21st century digital skills that are needed to adapt to the future of the trades"(Conference Board of Canada: Digital Skills in the Trades, Sept 2020, <https://bit.ly/3bsNCUz>).

Humber would like to build on this research through the assessment of these key digital knowledge requirements needed in the skilled trades by identifying if the DFW curriculum needs further tailoring to meet these requirements. Consultations with employers and stakeholders in the skilled trades will be carried out (building on the Conference Board of Canada research), and we will introduce any recommended new components to create a "pathway" digital micro-credential for trades that specifically meet the digital needs of the learners that the sector requires to keep up with new innovations in their field. For example, it has been brought to our attention that apprentices will now begin to demonstrate their skills by videotaping themselves and uploading these for review, to meet the various competencies required for the trade and for each level of their apprenticeship.

Similarly, the Ontario Skilled Trades Alliance (OSTA) made recommendations to the Advisory Council on Economic Growth - Canada in 2017 through a report: (May 2017, <https://bit.ly/3CDG8Km>). The OSTA has emphasized a number of key considerations for the skilled trades. Here is an excerpt:

"Resilient and adaptive trades (are required) as change occurs – some suggest 40% of existing Canadian jobs will be replaced by emerging technologies such as 3D printing, new materials, robotics and artificial intelligence – there is need to build into our understanding of trades a need for adaptability and resilience. The future is not a straight line from the past – a qualified tradesperson needs to be able to adapt to the changing nature of their work and to use that adaptability to strengthen and build their practice."

It is clear that digital skills are core to Canada's future economic recovery, post-pandemic, and without a digitally fluent workforce, any prospects for innovation in industry will be greatly hampered. The need for an accessible and well-supported digital fluency micro-credential is required now more than ever. If we can evaluate the curriculum and add some enhancements, the DFW curriculum can be easily adapted

to different sectors for more tailored needs and as a result, the project will be even more valuable in supporting job seekers to forge their chosen pathways and to further access available training for specific career pathways as well.

Introducing the blended version of the DFW micro-credential may provide a method of delivery for more reluctant learners with limited digital skills, who require more intense support to build their confidence. Humber is committed in offering this opportunity to meet the needs of learners that will benefit best from this facilitation method.

Addressing the digital knowledge needs of this group will go a long way in bringing these unemployed workers closer to the skills demand in our current economy.

Finally, a French version of the DFW micro-credential will allow Humber to scale the project across different geographic communities where the need exists. This component will include a collaborative partnership with College Boreal with a focus on Ontario's GTA and Northern communities. College Boreal has locations in the GTA and a number of Access Centers across Northern Ontario. Our consultations will be enhanced by the participation of our Francophone partner who will be able to adopt the micro-credential for use in their own communities.

INNOVATION AND EVIDENCE

As mentioned above, the original proposal submission to FSC included a mix of face to face and online blended model that is fully facilitated. This was not possible to carry out during the pandemic. An extension to the current project will allow for a rigorous assessment of all three modalities; face to face (blended format), asynchronous and synchronous. It will assist us in determining which delivery model corresponds best to a given type of learner. In turn, we will be able to accommodate different learning styles and the needs of future learners engaged in these micro-credentials.

Humber plans to implement two cohorts and serve 200 learners in a blended format. We are proposing to create up to five different sections of 20 learners each, to allow for maximum support for the learners. These micro-courses will take place at one of our five Community Employment Services sites across the GTA and/or our campuses. Enhancing the micro-credential further for learners pursuing the skilled trades will provide these individuals with emerging in-demand skills that will complement their specific trade-related-skills set. With the digital disruption now taking place in the trades, such an initiative could potentially "future proof" workers, as the trades begin to rely more and more on digital solutions. We plan on conducting consultations with employers and other stakeholders in the trades to inform the enhancements to the DFW curriculum for this specific pathway micro-credential. Employer feedback on hiring learners with these additional digital skills will provide evidence as to the value these additional skills set bring to the workplace. If the learners want to pursue further advanced technology pathways as a result of expanding their digital skills, this could be another favorable outcome that could additionally help meet the innovation needs of Canada's emerging advanced manufacturing sector and other sectors in the skilled trades.

Humber delivers a number of pre-apprenticeship programs funded by the Ministry of Labour, Training and Skills Development. We will offer the DFW micro-credential to those who are enrolled in the level one training at Humber College and at other Colleges. Learners in these programs are drawn from equity seeking groups, as the Ministry is committed to diversifying the workforce in the trades. Humber has enrolled racially diverse youth and women, individuals with essential skills gaps and disabilities, and newcomers. It is our experience that the learners in these programs do not have foundational knowledge and skills in the digital world. They can utilize social media and the options available on their cell phones, however, they do not have the foundational workplace related digital knowledge and skills. Further developing these skills and providing the opportunity to acquire micro-credentials that confirm that they have this skill set will be a good addition for the acquisition of the specific trade related skills. We will offer this opportunity prior to their level one training, during their training and/or after completion, whichever works best for the learner.

For those students that demonstrate a strong aptitude and interest in digital applications for workplace solutions, we will also be providing advising on future pathways related to the digitalization of their trade and industry sector as a whole, which will also assist them in navigating their future pathway. Humber and other Colleges have further related foundational programs and micro-credentials that are easily accessible to these learners that they can access while working in their trade or taking short breaks to upskill. Our target will be 50 pre-apprenticeship learners for this innovative objective of the project.

Finally, translating the DFW into French will allow workers in the GTA and Northern communities to upskill to meet the labor demands at the local level. One sector that has been identified by College Boreal is mining, as it is rapidly transforming through the adoption of significant digital applications.

LEARNING

Overall Digital Fluency for the Workforce (DFW) Project Goal:

To further test the DFW project, a series of stackable digital fluency micro-credentials have been developed to better equip underserved individuals to transition to, and within the workforce, providing employers with the ability to recruit and retain digitally-fluent workers in a timely and cost-effective manner.

To date, we have learned that the DFW micro-credential has effectively supported learners in building their digital skills and knowledge while progressing through the three available micro-credential levels. Learners with little or no digital skills have been able to achieve at least one micro-credential (83.1% in cohort 1 or 74 out of 89 learners). and have been able to position themselves for further opportunities to expand their knowledge after gaining the confidence to navigate the digital world. The knowledge and confidence allowed them to utilize the web for employment opportunities and to display some digital competencies on the job. For those with some previous digital skills and knowledge, they have now achieved a formal

recognition of those skills by having the competencies tested and assessed, and many have moved on to further micro-credential levels to build on the knowledge they acquired (61 (68.5%) earned at least two, and 52 (58.4%) earned all three to stack).

As a result of this success experienced by many of the learners, this was an opportunity that meaningfully assisted them in gaining valuable work related skills. The impact this had on learners is aptly expressed by Necole Almeida.

“With all that was happening this year, [the DFW program] turned out to be a blessing in disguise for me. Thank you to all the folks at Humber who put this together and managed to impart learning and give us hope. I would never be able to afford a college course on my own - this course opened a door for folks like me who want to work hard against the odds”

To reinforce the previously successful learning outcomes, we wish to add three innovation objectives through this targeted CFP:

1. Test the delivery of digital fluency micro-credentials provided to members of four key target populations (newcomers, youth, racialized and essential skills gap) using a blended model (mix of in-person and virtual delivery);
2. Enhance the current foundational digital fluency curriculum to develop a sector-specific micro-credential for the skilled trades that will build on the foundational DFW micro-credentials;
3. Explore the needs in the Francophone community for a stackable digital fluency micro-credentials and translate / adapt the current curriculum based on research and consultations.

We have expanded on our research areas based on the above three objectives:

Research Area 1 (Foundational Digital Fluency for the Workforce):

What does foundational digital fluency look like as an articulated spectrum of skills based on industry input? Can an authentic foundational digital fluency program be developed that is relevant across sectors and can it be easily adapted to a specific career pathway in a sector, such as the skilled trades, for interested learners? Can it be adapted to meet the needs of the Francophone community across Canada?

Research Area 2 (PLAR informed Micro-Credential process as a training and accreditation solution):

Is there evidence to support the efficacy of Humber’s PLAR-informed micro-credential model, and could it serve as a model for the broader development of micro-credentials? Can this model be effectively scaled as an education and training mechanism for swiftly upskilling workers to meet rapidly shifting employer needs?

Research Area 3 (Pedagogy of Learning):

What are the benefits and limitations of the three DFW micro-credential delivery models? How effectively does the learning environment meet the needs of learners

with different backgrounds, with respect to access, support, and completion? Are there barriers that exist for some but not others?

EQUITY, DIVERSITY AND INCLUSION

Equity, diversity and inclusion (EDI) is a core component to all work undertaken by Humber College. Humber is one of Canada's most diverse institutions, with specific initiatives for the indigenization of education, inclusive spaces for LGBTQ2S+ and black-identifying students that drive student success, and campus spaces that are welcoming to all walks of life. Equity is one of our five strategic values and Humber has invested in an institutional EDI Taskforce to ensure that students, staff, faculty and our larger community is reflected in the practices, policies and initiatives of the college, from curriculum to community. This commitment is embedded through explicit commitments in our 2018-2023 strategic plan.

Humber is aware of the need for skill and resume-building opportunities that boost employability for under-represented, marginalized and vulnerable groups to gain entry or re-entry into the workforce. Humber's largest campus is located in Etobicoke North, where there is an above-average concentration of neighbourhoods that are below the City of Toronto's wellbeing indicators. In fact, 57% of the adults in Etobicoke North have a high school education or less. Moreover, according to The Opportunity Equation in the GTA, by the United Way, the GTA is demonstrating an upward rise in income inequality and polarization, which can impact access to training and education (United Way of Greater Toronto, 2017). There is also data that clearly demonstrates the need for underrepresented groups in local communities to access industry-informed re-skilling/up-skilling initiatives that builds capacity and removes barriers to the workforce across the entire GTA.

Humber believes in the transformative power of education and understands that for some individuals, accessing the requisite training for success in a highly skilled workforce will mean mitigating additional barriers and roadblocks. Our proposed solution is a transformative, collaborative model that is well-suited to engage and accommodate the complexities that individuals navigate in their personal lives. The intentional creation of innovative training opportunities - responsive to employer needs will create more opportunities to diversify our workforce with the positive assets that this group presents for long-term economic and social wellbeing in Canada.

This project aligns with Humber's EDI values and is situated as an important workforce access initiative in its universal design principles, in how we value and will leverage the expertise of our partners and learners, to create an innovative solution that can be scale-able across communities.

Our project identified four major participant groups that guided our intake and eligibility requirements. These groups were: newcomers, youth, racialized persons and those with essential skills gaps. Please see below for a breakdown of the categories to which our 323 learners from all three cohorts belong.

- Newcomers (arrived in Canada in the last 5 years), 24.5%
- Youth (aged 15-29), 13.3%
- Racialized persons, 85.8%
- Essential Skills Gap, 14.2%
- Women, 74.6%
- Indigenous persons, 0.3%
- Refugees, 3.1%
- Immigrants, 74.0%
- Persons with disabilities and Deaf persons, 13.3%
- Older adults (65 years and older), 1.9%

In addition to the current target groups, our new project will serve those who are participating in pre-apprenticeship programs specifically and who also fit the target populations above. It is not our intention to deliver the Francophone micro-credentials during the course of the project, but we will be working with our collaborative partners (Francophone delivery organizations) to make arrangements for an agreement to deliver the program.

The current DFW project uses an innovative approach to micro-credentialing by using a cascading model of micro-learning, assessment, and credentialing. The curriculum allows us to meet learners where they are currently at, providing them the flexibility to tailor this micro-credential program based on their current skill set and competency.

CAPACITY

Humber has a strong organizational capacity to support this proposed project. This is due to: foundational experience building micro-credentials and use of a proven platform for delivery; strong history of meeting industry training needs; well established partners with deep connections to the labour market and community needs; a dedicated Community Outreach & Workforce Development department with expertise supporting the target demographic; academic and research expertise committed to accessible education; and Humber's 50 year history of delivering polytechnic credentials.

As a polytechnic institution, Humber is well placed to take the lead on a project like this. The Humber brand is a valuable resume building block, given the size of our institution, our level of strategic partnerships and our demonstrated commitment to working with industry and community partners to be agile and solution-focused. We have experience supporting partnered workforce development initiatives, such as a recent capacity building project to train and upskill residents in home energy retrofits in partnership with the City of Toronto and Natural Resources Canada (Home Efficiency Animator Training). Furthermore, Humber already demonstrates leadership in advancing digital fluency learning by stewarding the Hive Toronto Digital Literacy network as of 2017. Hive Toronto acts as a network comprised of community, education and industry collaborators committed to addressing issues of digital fluency for the next generation.

In keeping with this commitment, Humber has made digital fluency an institutional priority for all graduates as a part of our current strategic plan. Through internal collaborations with the Humber Libraries and Teaching & Learning Support, a series of online modules and toolkits with evidence-based practices are being crafted to increase faculty capacity to teach digital fluency skills across all program areas at Humber. This situates Humber as a strong academic partner with the expertise to deliver digital fluency skill-building activities.

Humber is very proud of the successes of our career-ready graduates and we are confident that we have the expertise to lead a project of this undertaking, especially given our excellent track record of working in collaboration with community and industry partners and in supporting learner success.

The DFW project has undergone many significant developments since the project started in March 2020. These developments include adapting to the impact of the COVID-19 pandemic and to a virtual delivery only implementation for the project. A list of important milestones to date are included in the table below:

Milestone	Description
Finalized research protocol, assessment and evaluation framework	<ul style="list-style-type: none"> Submitted to FSC at end of July 2020 and was approved by Humber REB on November 2020
Conducted robust cross-sectoral community / industry consultations in developing the curriculum framework	<ul style="list-style-type: none"> Consultations consisted of 11 sessions and a total of 75 participants Curriculum framework was used to design the micro-credential program, including course materials / modules, PLAR pre-assessments, etc.
Built a wrap-around support pipeline for learners to reduce barriers to participation in the program	<ul style="list-style-type: none"> Included employment support (employment advising, job-readiness preparation, etc.), learner support (live sessions, office hours, 1:1 support), and community support (housing, transportation, food security, etc.)
Wrapped up the first cohort on April 30 2021.	<ul style="list-style-type: none"> Awarded 187 micro-credentials in total to 74 out of the 89 learners who attempted the program. To date, 35 learners have reported that they have started a new job or a new training program since their enrolment and we continue to follow-up to ensure they have access to resources / services
Developed, tested and implemented a series of PLAR informed micro-credential pre-	<ul style="list-style-type: none"> Completed by 105 out of 107 learners in the first cohort. Resulted in 88 learners starting in DFW 1,

assessments to help place learners in the appropriate micro-course based on their current skill level and competency.	17 learners in DFW 2, and 2 learners in DFW 3.
Established partnerships with different departments / faculties across Humber	<ul style="list-style-type: none"> Involved over 40 people across the College in direct project support and strategic oversight and steering. Developed and maintained a Project Advisory Committee consisting of 19 industry and community partners

COHERENCE

Innovation cannot be sustained in the Canadian economy without a digitally competent workforce. It is crucial that we provide an accessible micro-credential that assists the groups we have focused on in this project, the opportunity to catch up and gain the required skills needed to participate in this economy, and forge sustainable futures. The real value of this micro-credential is that learners are assessed through a Prior Learning Assessment Recognition (PLAR) tool so that they are placed at the level they need to be in order to start building on their existing skills. Learners are not duplicating any prior knowledge, which makes the micro-credential tailored to the needs of the learner, quickly updating skills for entry into the workforce.

This proposed project builds on the success of the current project and allows Humber to scale the work through three distinct new innovation objectives. Extending the project at this time, while the staff team is still in place and the momentum is building, is an excellent time to expand on the foundation that has been initially invested in by the Future Skills Centre.

(3,500 words maximum)

PART 4 - PROJECT WORK PLAN AND BUDGET

1. Please submit a **one-page work plan** with key milestones and their timeline. **Do not** include detailed activities at this time. If your proposal is selected, we will work with you to develop a detailed work plan.
2. Please complete the project budget template provided to you as part of the application material.
 - a. Include only **new funding** associated with your new project and its additional scope. Please do not include the existing funding that is already part of your current funding agreement with FSC.
 - b. If applicable, identify new funding pending or confirmed for this project from other sources. **This funding should be included as in-kind**

contributions. (Please note that funding from other federal sources cannot be counted towards in-kind contributions)

3. Please submit your work plan and budget by sending these files, along with this completed form, to targetedcall@fsc-ccf.ca.
4. You may use the space below to provide comments to accompany your work plan and/or budget.

Budget Notes: For year 1, there are no in-kind and staff salaries as this is covered in our current grant that ends in May 2022.

(100 words maximum)

PART 5 - DECLARATION

By submitting an application, the lead organization and its partners agree to the requirements of the following sections, detailed in the guidelines outlined for this funding call, and they affirm that they comply with and/or commit to the following:

- Organization eligibility.
- Active support for co-creating and carrying out an evaluation with an FSC-approved evaluator, if FSC decides an evaluation is appropriate for this project.
- Active engagement in knowledge mobilization activities related to the project.
- Compliance with the Tri-Council Policy Statement on the Ethical Conduct of Research Involving Humans.
- Confidential due diligence inquiries from Future Skills Centre into the applicant.

Signature



Name of signing authority

Kelly Jackson

Date

2/11/21