

**Micro-Credentials: Competencies at the Core**  
**Panel 2 with Laurie Therrien, Corporate Training and Industry Services BC Institute of Technology and Curtis Hale, EllisDon Construction**  
**BCcampus: February 22, 2023, Session 5**  
**Host: Ross McKerlich**  
**Panelists: Laurie Therrien and Curtis Hale**

ROSS MCKERLICH:

Hello. Hi. Thanks so much for joining us. And I'm just going to introduce you as our second panel here. And we're pleased to welcome Laurie Therrien, who's manager. Hopefully I pronounced that correctly?

LAURIE THERRIEN:

You did.

ROSS:

Excellent. Manager of corporate training and industry services for BCIT, or British Columbia Institute of Technology. And then we have Curtis Hale, the design manager. EllisDon Construction, or one of the design managers. And it's a large consortium company. So really glad that you're here.

LAURIE:

Thank you. Yeah, Thanks for inviting us.

ROSS:

Great. Thank you. So we're going to dig a little bit deeper. We're now, just as a reminder, we're in the how part of competencies at the core. We've covered the why and the what. And then we've already dug in a little bit into the how. And now we can learn a lot from this micro-credential as well. And Laurie is going to actually introduce the micro-credential just as bit of an overview. So we can go to the next slide, Kelsey. Thank you. Great. Thanks. Go ahead, Laurie. Thank you.

LAURIE:

Alright. Well, thanks again, Ross, and thank you, everyone. So I'm very pleased to be speaking with you today, and I'm glad that Curtis has agreed to join me here today too. Our introductory studies in mass timber construction was one of the first micro-credentials, I believe that was offered in British Columbia. It was, I believe it was about late 2020 when the invitation came from the province to consider creating this micro-credential. And it was kind of a funny time because nobody really knew what a micro-credential was then. We had a lot of creativity around trying to figure out how to put together a competency-based small credential that would meet the needs of this rare but burgeoning sector of mass timber. And because in this part of the world, there were not really a lot of mass timber structures going up or a lot of projects being built. But there was a real opportunity because of the Building Code changes in

British Columbia that created a lot of opportunity, I think. So at BCIT, our role is explicitly to help industry with their skilled worker challenges through educational solutions. So this was actually a perfect opportunity for us to put that mandate or mission into practice. So at BCIT, before we jump into any development initiative, we look to our industry partners to confirm A. if they need it and B. exactly what do they need. And so we do that in a variety of ways. And I think Curtis can probably add some aspects of that too, but we do that through one-on-one interviews with our industry partners. We do focus groups with them. We do surveys when we want to reach a broad, broad swathe. What industry does for us in return is they provide information about what they need when they need it. And they also support in many ways our curriculum development projects. They do this by providing access to subject matter expertise. They will often send their employees as pilot groups to help us, to help us test out the curriculum that we developed. And that was exactly what we went through with this particular micro-credential. So as you can see listed on the slides, these were the competencies that were identified by our industry partners as being needed. Before we go into more detail about that, Curtis, I don't want to do all the talking. Do you want to add some thoughts from your perspective?

CURTIS HALE:

I think from our perspective, we were engaged through a survey. And with our business, we've been installing mass timber components in buildings for a long time, but particularly maybe not as a whole mass timber building itself. So as that became more popular around the country, we noticed that in particular general knowledge base was kind of lacking throughout the industry. So we were really keen to see a course that would address general knowledge and understanding of mass timber in the industry and enable people to have those conversations with engineers and designers in the building trades. So yeah, we were really hoping that BCIT would help deliver on that.

ROSS:

Great Thanks so much. And so this is the kind of overview of the micro-credential. And then we'll have some other questions that are related to what we've been talking about. So we can just kind of emphasize that. Or say, hey, we've covered it. And the assessment seems to be case studies. Is that correct, Laurie?

LAURIE:

Yeah. The way the micro-credential unfolds specifically is we did identify these particular competencies. And we actually chose to design it as eight mini courses that focused on each of these competencies. And at a couple of different points in the micro-credential, people would... the assessment would involve a case study. They would analyze it and answer questions about mass timber through the use of case studies. Curtis, in addition to, identifying as an industry partner also was one of our guinea pigs in the micro-credential. So I don't know, I don't know if he wants to talk about his experience with the assessments, etc. Yeah.

CURTIS:

I think the assessments were actually, they were very useful. They are always based obviously on what we were doing in that particular unit. But they were also very useful in practice as well. A lot of the assessments that we did, I ended up using in the workplace. So they were, they were very useful from a learning initiative and usefulness in the actual workplace where you are performing your tasks.

ROSS:

So the application was right there.

CURTIS:

Yeah, 100%.

ROSS:

Great. Well, can we move on to our next slide, Kelsey? And we'll get to panel question number one. And I know that you've talked about it a little bit, Laurie, already just about how the competency need was identified. And so if we can just kinda recap some of the information that we've already shared there. So I think what I heard is that by default BCIT is really tied to industry. But then to see if you can just kinda recap what you're mentioning there.

LAURIE:

Yeah, I can dive a little bit deeper into that. So in the case of mass timber, what we heard at the time and this kind of alludes to what Curtis said, is that the most pressing educational need was for a foundational program that would help introduce the basics of mass timber to a broad spectrum of people working in the field of construction. And that included everyone from architects, engineers, estimators, carpenters, iron workers, installers, digital modellers, manufacturers, really, really a broad, broad spectrum of construction professionals. So what industry already involved with mass timber told us is that people in B.C. might shy away from exploring mass timber as a building process or even as a career focus because they didn't know much about it. So the tact we took is that in order to help mass timber expand as part of the construction sector, it was important to help correct some misconceptions around things like mass timber costs too much. What about fire protection? It's made out of wood. What about moisture challenges? Again, it's made out of wood. And maybe the basic question was if I already work in construction for concrete and steel or stick frame buildings, can I leverage what I already know towards building mass timber projects? So again, we went through with what the competencies were, but, but what we really wanted to do was to open the possibility to people across that broad spectrum that yes, what you already know can be leveraged. You already have a lot of the foundational information. And so we wanted to help them think about leveraging that towards mass timber.

ROSS:

So it's almost like what we've talked about, or what I've heard in the past too about prior recognition of existing skills that you already have and applying that to something new, such as mass timber.

LAURIE:

Yeah exactly. We thought of micro-credentials in a couple of ways. One is introducing a group of people to a new topic. This one was kind of a combination of that because mass timber was the new topic, but it was building on those existing skills and knowledge. So more around re-purposing and refocusing.

ROSS:

Okay. And Curtis, the role of an employer such as EllisDon. You were actually a learner, I think in probably one of the first iterations of the micro-credential?

CURTIS:

Yeah.

ROSS:

How was that experience?

CURTIS:

Yeah, it was fantastic. I was part of the first group of people that went through the micro-credential program. And I guess as a Red Seal carpenter myself, I finished my carpentry apprenticeship at BCIT in 2004 and there was nothing to do with mass timber in that program. And it's only through the installation of components as someone on the tools like glue and beams to hold up a skylight or glue and posts to hold up a canopy or stuff like that, that you got the general knowledge of how to work with this stuff. So having a, having a basis point to jump off to as good but until getting really into the course not fully comprehending and understanding what all of the different building materials was from CLT to DLT to NLT to GLT, all of these different components that can be used was good. Because then at it, let me become one of the people in the office that was more informed about mass timber and be able to engage with our engineers that were working on it and our architects that were working on it and work with estimating and other departments to start to champion that part of the business.

ROSS:

Great. You mentioned that the assessments were really spot on or really in terms of applicability in the workplace, do you think you had a role in that because of your experience in construction in mass timber construction?

CURTIS:

I hope we had some positive direction of the assessments and stuff. So yeah. It was, it was certainly good.

ROSS:

Excellent. Great. And so yeah. So you were a student and then are you also... but now are you also helping advise the future iterations right now? So they bring you back into the fold for that?

CURTIS:

Sorry. At BCIT? Yeah. So I participated in the micro-credential as well as the associate certificate in mass timber construction site so I participated in both of those programs and provided feedback to BCIT through both of those processes. And I have offered to contact me. I would love to keep involved with the programs. I think they're a great benefit to anyone in the industry.

ROSS:

Great. And you've got a great perspective too. Go ahead. Sorry, Laurie.

LAURIE:

No, I was just going to build on what Curtis said too. What we will do when we get into teaching a new field of study which mass timber has become, is we end up forming what we call a SAG, or a sector advisory group, which we've recently done for mass timber. And that's where we will partner with a variety of our industry partners specifically for that. So they can keep giving us input and making sure that the education that we're providing is exactly what their industry needs. Not just for today, but what they see coming in in the near future. And we actually formed that group in January. So that was an important point for us.

ROSS:

Right. Okay. Great. Thank you. If we can move on to the second panelist question, Kelsey, that would be great.

So we've asked this actually all the questions are the same, actually pretty much for both the panels. And how does the competency-based nature of the micro-credential affect the design? And that's something that we've talked about a little bit this morning and also a little bit this afternoon. So what were the design considerations like for this program being a competency-based program?

LAURIE:

Well, what was important to us is that we make it as applied as possible given the fact that it was going to be an online program. And that is, I think where, as was spoken about before, it was important that the assessments be practical in nature so the people doing the online program could relate to how they would use this tangibly in the real world. The other piece was a part of the gap that we were trying to address is that when something new happens in industry like mass timber was in B.C., leading up until this time is that companies would hire people without the specific skills that they need. And they would go through quite involved onboarding or orientation where somebody that doesn't have the specific skills and knowledge but has other information would actually be trained by the company itself. Where BCIT and

other post-secondary is, I think come in, in terms of the best timing for this is when that model is holding industry back. You know, if the post-secondaries aren't able to help them create people who are really ready to hit the ground running, they're always going to be having that long lag time where they're having to really be that de facto educational institute. So our goal for this micro-credential and other education that's come since then is to give them that. Provide that competency-based applied learning so that they will have people that can perform those roles pretty well right out the gate.

ROSS:

Right. So you've worked very closely with industry and employers such as EllisDon, right? And that enabled you to design a micro-credential that met the need and that was assessed appropriately for the industry. What's one best practice that you can share for others when they're designing and developing micro-credentials in B.C.? If you can look back to say, you know. This worked really well or hey, this is something I wish I had done. What best practice would that be that you can help identify?

LAURIE:

We did get a chance to actually do this, so we were lucky enough to be able to run two large pilots. Curtis was in the first one and we actually had 120 people go through that. We were able to get extensive feedback from the students from that. We were able to get our own feedback from how the administration actually unfolded. One of the best lessons learned, I would have to say is less on the educational curriculum development side, and it was more on the administrative side. We had these eight very tidy small courses that were broken up into topics that from a pedagogical perspective, it worked really well. It was like a journey through design, manufacture, installation. There was a real elegance to the design in that respect. But actually administering eight small courses in a linear progression when people were actually meant to pass each course before they go into the next one. It was actually a logistical nightmare, right? Nightmare. I would, I would actually hazard to say. So we learned a lot about, you know, you can still deliver it in a pedagogically sound way, but you really have to involve your administrative staff in terms of best practices to allow that part of it to be seamless. So that was our biggest lesson learned.

ROSS:

Alright, so that's something we heard from the previous panel as well as that it takes a team, and there's... and lots of relationships to be built inside the organization, but also outside as well. And so, and so that's what I heard from you, but also keeping it simple as well, I guess, if at all possible.

LAURIE:

Don't get too fancy.

ROSS:

Don't get too fancy? That's a good, that's really good. And so that's really good advice as well. And we'll go on to question number three, Kelsey. Now this is more for Curtis again. And so in this case, you are one of the first learners through and how is the micro-credentials received by your employer? Like now, the employer could do certain things that they couldn't do before in this case. Or in this case, just tell me about that perspective.

CURTIS:

Yeah. We... I guess you guys know we're a large organization and we have people in different parts of the country. Typically, we have a construction sciences team and a couple of those people specialize in mass timber. And before undertaking both of these courses, a lot of the kind of go-to would be going back to those individuals in Toronto for information. Since taking the courses and being more involved with mass timber projects, I've been able to champion those projects and those items in our area office here out of Vancouver. The company was supportive of me taking the courses. They thought it was a good initiative. I know they had input into course material in the second course. I'm not sure about the first one. Laurie might be able to comment on that, but yeah, they were very supportive of it. They were glad to have people going through the course. I know a couple of people in the office here have been through it. Again, everyone's been supportive of undertaking it. And would I recommend it to colleagues and others? Highly, I think specifically with the micro-credential class, it just enables people to start having those conversations and general understanding of what the different components are, the methodologies to how you build it, and what needs to be undertaken to actually realize a mass timber projects. So I think that it is, it benefited me, it's benefited the company as well. And I think ultimately the micro-credential course has benefitted the industry as a whole. And I know coming out of it, I hope it's something that BCIT is able to maybe standardize in the industry because I think it's a good starting point for a lot of people to get into mass timber and have an understanding of what they're getting into.

ROSS:

Great. Thank you. And I'm just actually going to pick up on something you mentioned as well about you were in the micro-credential and then now you're in the associate certificate. I think that's the name. Is that correct, Laurie. Yeah. So you decided to go on? Correct. And that's for credit? Am I correct or no credit?

CURTIS:

I was contacted by the BCIT after completing the micro-credential to be involved with the associate certificate in mass timber construction. So yeah, again. There was another pilot program with BCIT. And again, my employer was more than happy to have me go through that program and fully, fully supported that as part of learning development here.

ROSS:

Great. Thank you. It's a building block, right? Yeah. Yeah. Thanks, Laurie. No pun intended.

LAURIE:

Yeah. Not bad. What we tried to do with the associates certificate was we were trying to address what industry said was their second pressing need. The micro-credential was the most pressing need, that general foundational information. But the next piece was around having people who already had skills, say in carpentry or iron working, understanding how to actually assemble the components of a mass timber building into that structure. So that was the piece that Curtis participated in. So again, just like you said, Ross, a building block from the micro-credential to the associate certificate.

ROSS:

Great. Thanks, Laurie. I kinda we're going to mainly focus on micro-credentials here, but I just wanted to introduce that part about how there was a bit of a like stacking going on or laddering. So thank you so much. And now we have some questions from our group here. And what's been happening in the past is that we do a combination, looking in the chat for questions and then also allowing people to ask questions verbally as well. And so we'll just actually go ahead here and look in the chat. One question from Douglas at CMC is College of New Caledonia. What was the total course time to complete the eight competencies? Or how much time is spent per module in each section?

LAURIE:

I believe we gave two weeks per module. So it was about 16 weeks for the micro-credential. We tried to create it so an average learner might spend about 6 hours a week on it. Was that about right for what you spent, Curtis?

CURTIS:

Yeah. They're about... some were lighter than others. Some were, I think it depends on your starting point. If you knew nothing, then you'd probably take the 6 hours per week. If you came into it and had a basis for a good starting point, then you might use half of that time. I think I varied between 3 to 5 hours. depending on what the topic was.

ROSS:

And I think that was the first iteration, right? And then the second one was melded into two courses. Am I correct?

LAURIE:

Yeah. What we did was we did meld the eight courses into two courses. It was more an administrative exercise than a design size. So I think the amount of effort stayed the same.

ROSS:

I see.

LAURIE:

Just a different approach. That's right. Yeah.



ROSS:

Great. Question from Emilia. Did EllisDon pay higher wages for staff that could hit the ground running so to speak. I'm not sure if you know about that, Curtis.

CURTIS:

Sorry. I don't know.

ROSS:

Probably. Yeah, exactly. But you're valued though as a result of taking...

CURTIS:

It's given me opportunities to do different things with the business.

ROSS:

Great. And Liz had a question just about the delivery method. And so was it online asynchronous, am I correct? I think it was, right?

LAURIE:

Yes, it was online primarily, we call it blended even though it was all online and it was mostly asynchronous, but there was some real-time virtual presentations. So I think again, Curtis could probably attest. I think we tried to have one expert presenter for almost every, every one of the main topics. And I think they were very well received. And what we would do is video those so that people, if they couldn't make the live presentation, they can view them later.

ROSS:

Great.

CURTIS:

Yeah, The delivery model was fine, I think, for someone who works and was taking training. It was online and then yeah, there were specific lectures or subject matter experts. I think they were only 45 minutes or so when you logged in. So it was relatively easy to make that happen during your day.

ROSS:

That's excellent. So in other words, the barriers, they were identified and then everything was designed so that it minimizes barriers to learning is what it sounds like. Is that correct?

LAURIE:

Yeah, We did want to make it accessible for busy working professionals. Absolutely.

ROSS:

Great. Alright, so that's, so I'm going to actually open up the questions now to folks to raise their hand. And then ask a question about BCIT mass timber construction and we'll be able to

do that. Actually, it looks like Douglas is actually two folks out. So I think Douglas you were the first one, I believe.

DOUGLAS:

Great. Thanks. I really liked the idea of case study as the assessment. And Curtis, I'm wondering if you can sort of tell us what that looked like and felt like as a student. And then after going through that case study scenario, how did that translate into the workplace?

CURTIS:

Yeah. So from memory, we looked a lot at the Brock Commons building and different units concentrated on different components with the Brock Commons building. So in looking at that, it gave us something to look at that was actually standing and see how it got built. There was lots of information in time lapses and that type of stuff. The second part of your question, sorry.

DOUGLAS:

I was just, you know, I'm a former associate dean of trades and I'm just trying to think of when we send an apprentice through a level, they get 20 or 25% of that knowledge from their time in the classroom. And then they get 75 or 80% of the application of that knowledge in the workplace. It's sort of on the employer. So I'm wondering how that felt for you?

CURTIS:

Yeah, I can give you an example if you'd like. I think one of the assessments might have been on moisture management. And we had to undertake a case study of what was done on site, look at what was done, and then we had to provide a moisture management plan of our own for a made-up project. So after doing that and then having to actually do moisture management plan for one of our projects that I'm working on or worked on. It became a, you know, a valid way of reaffirming your learnings from BCIT and applying it in a real-world manner. Being able to look at what they did and you're building and what you would like to do. So there were certainly some nuances between what we did as case studies and assignments and then what's applicable in real life. And to be honest, they've all helped and I've had to do something similar to most of our assignments on most of the jobs that I work on.

DOUGLAS:

Awesome. Thanks very much.

CURTIS:

Yeah, You're welcome.

ROSS:

Great, thanks. So really the assessment was very authentic, as was mentioned in the chat there. Danielle, I know you've got a question. Yeah. Go for it. Yeah.

DANIELLE:

And you probably answered it because I think Douglas and I were on the same page in terms of assessment questions and just thinking about the variety of assessments. And often, when we think about competency-based learning, the assessment is observation, especially in industry. And so I'm curious if any of that applied here at all? And if there were other varieties of assessments that you didn't mention?

CURTIS:

I honestly found that the assessments were in line with the learning material and in line with the industry. I don't think that there was anything out of the ordinary. I found that BCIT in particular has always done a good job with, what would you say, like having their finger on the pulse of what's actually required. And in this instance with the micro-credential program, the assessments were really in line with one, the material that you were being taught and two, what you'd actually need to do for a project.

ROSS:

Great, Thanks, Curtis. So again, that sounds like the assessment is really part, was really nailed. And that was a result of the design and the participation from industry. So that would be a best practice. That and keeping it simple. There is a question in the chat about were there opportunities for peer engagement and sharing your moisture management plans with peers in your cohort. So I guess by peers means other EllisDon employees? Am I correct?

MEGAN:

Yes, that's correct. Yeah.

CURTIS:

So I'll kind of answer that in two different ways. I think because through the learning platform and being online, it was really left up to the students to engage with each other as much or as little as you wanted to. You could engage with your classmates not at all or as much as you wanted to. And I think that that kind of varied probably personally from person to person. Personally, I kept to myself a little bit during the course and that was just the way I learned. But I had a lot of opportunity to learn from other people in our construction sciences department who specialize in mass timber, so I had the opportunity to engage with professionals who are experts in that field.

LAURIE:

I'll just add one aspect of it which might explain Curtis's experience that although the pilot went through as a cohort, which means they all, they all went through in lockstep, the micro-credential was always designed to be what we call self-paced continuous entry. So I'm glad to hear you experienced I like that, Curtis, because it was exactly as intended. You can go through just interacting with your instructor and with the material and your workplace. Or you would have the opportunity to interact with other students. But it's not designed to be required. Because industry told us they wanted this to be as a just-in-time training because students

should be able to start it whenever they need the training. And so that was the purpose behind that design.

CURTIS:

Yeah. You can correct me, Laurie, because I sometimes get the two confused because I've done both of them, but I want to think in the micro-credential as well. There was I'm pretty sure we did peer commenting on certain topics and stuff like that where we would have to have discussion posts for a topic. You would pose your opinion on that topic. And then other students and the instructors would critique your response to the question or to the topics that we were looking at that point in time.

LAURIE:

Exactly. And I think that probably maybe answers Megan's question around the engagement. So although it wasn't necessarily in real time, there was the opportunity to engage with each other through the discussions, etc.

ROSS:

That's excellent. Thank you so much.

LAURIE:

You are welcome.

ROSS:

All right. Thank you, everyone. Any other questions before we move on? Anything to add, Laurie or Curtis? Just to conclude?

LAURIE:

I think probably just to say thanks for, thanks for inviting us here. We enjoyed the experience of developing and delivering the micro-credentials. It was, it was wonderful to be able to interact. I call it like the magic triangle where you have industry and education, and government all headed in the same direction. That was a very rewarding experience.

ROSS:

Great. Thank you, Laurie.