LaurentianUniversity
UniversitéLaurentienne

McEWEN SCHOOL OF ARCHITECTURE
ÉCOLE D'ARCHITECTURE

MSoA

McEwen School of Architecture
Laurentian University
Architecture Program Report
for Initial Accreditation
Submitted: September 15, 2020
Revised: December 3, 2020

Acknowledgments

The McEwen School of Architecture acknowledges the Robinson-Huron Treaty of 1850 and recognizes that our School in Downtown Sudbury and the Laurentian University campus are located on the traditional lands of the Atikameksheng Anishnawbek. The City of Greater Sudbury also includes the traditional lands of Wahnapitae First Nation. We are truly honoured to have been able to work with so many inspiring Indigenous communities, partners, and colleagues throughout Northeastern Ontario since the School opened in 2013. Miigwech.

This report has been compiled from a collective effort over many years, by a committed group of faculty, staff, students, university administrators and colleagues, as well as community members, who have played pivotal roles in the founding of not only a new school of architecture, but one that challenges the way we think about architectural education in relation to our Northern Ontario context. Many people from the School and the University have contributed to this report. I would like to offer special gratitude to our Administrative Assistants, Victoria Dominico and Tina Cyr, for devoting their time to this effort. Our Founding Director, Dr. Terrance Galvin, has provided invaluable guidance and devoted significant energy into the accreditation process since the School's inception, and this report is no exception.

Dr. David T Fortin, Director

Laurentian University
Université Laurentienne

McEWEN SCHOOL OF ARCHITECTURE
ÉCOLE D'ARCHITECTURE

McEwen School of Architecture (MSoA)
Laurentian University (LU)

Architecture Program Report
for Initial Accreditation

Submitted to the Canadian Architectural
Certification Board (CACB)

Dr. David T. Fortin
Director & Associate Professor

Dr. Terrance Galvin
Founding Director & Professor

Submitted: September 15, 2020
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MSoA First-year Student Design-Built Ice Station, 2017. Professor Mark Baechler.

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Introduction to the Program 1.0

Photo: Bob Gundu.

1.0 Introduction to the Program

Birchbark Canoe Building Sharing Circle with Elder Marcel Labelle, 2016

1.0 Introduction to the Program

1.1 Program Identity and Mission

> *The APR must:*
> *• include summary of the Program's identity, uniqueness, strengths, and challenges;*
> *• include the Program's current mission statement, the date of its adoption or revision, and the date of its endorsement by the institution (if such a statement and objectives do not exist, the Program's plans for completing one must be outlined); and*
> *• demonstrate that it benefits from and contributes to its institutional context, including the Program's academic and professional standards for both faculty and students; the interaction between the Program and other programs in the institution; contributions by the students, faculty, and administrators to the governance as well as the intellectual and social life of the institution; and contributions of the institution to the Program in terms of intellectual and personal resources*

The philosophy of the McEwen School of Architecture (MSoA) is founded upon pride of place. This philosophy embraces the resiliency of northern people and the unique beauty of the northern Ontario landscape. Located at the crossroads of the City of Greater Sudbury in the downtown core, the MSoA marked Canada's first new architecture curriculum in over 45 years when it opened in 2013. The MSoA is an unfolding experiment in emerging pedagogies and diverse cultures. Our unique architecture program highlights design and culture for northern Ontario with an emphasis in developing expertise in wood, among other initiatives.

The study of Architecture generally raises awareness of the holistic and aesthetic nature of the design of the built environment. Laurentian's Bachelor of Architectural Studies (BAS) undergraduate Program focuses on four main streams: Design, Culture, Technology and Professional Practice. Architecture students take electives on the main Laurentian University campus, while Design Studio and other mandatory BAS and MArch courses are held at the McEwen School of Architecture's downtown site. Design Studio courses challenge students' creativity through the application of practical building solutions for northern climates, taking into account cultural sensitivities, diverse histories and community profiles. Our French, English, Métis, and Anishinabek faculty and student body is unique to Laurentian's tri-cultural mandate; conducting Design Studios in both French and English. As well, regularly working with Elders-in-residence, Knowledge Carriers, and guests who are First Nations and Métis, provides a further array of cultural and educational perspectives. Finally, the four architecture buildings that comprise our downtown facility (costing over $30 million) complete an innovative complex that is both intentionally didactic and environmentally sustainable. These buildings are our first teaching tools and their design has influenced the formation of the School's curriculum.

1.1.1 Unique Features of the Program

Co-op Education

Strongly rooted in a Co-operative education model that integrates theory with practice, the first work-term in the BAS Program takes place in industry and related fields, while the second work-term in the BAS Program takes place in an office for architecture or a related design field. The Master of Architecture (MArch) program continues this philosophy with an eight-month long Co-op term in architectural offices locally, nationally, and internationally.

Design-Build and Hands-On Learning

The MSoA Design Studio sequence has consistently emphasized the importance of working with material at a 1:1 scale to learn about material properties and potentials. In the 1st year of the BAS Program students have built ice fishing huts or ice stations every year since the School opened. Similarly, every cohort of 2nd year students have built birch bark or carbon fiber canoes, and, the past two years have constructed a collaborative wigwam project on LU campus. 3rd year students have built portable wood fired saunas where they gained knowledge of construction principles and techniques. More recently, they have built play structures for the Copper Cliff Better Beginnings Better Futures organization. 4th year students have built a number of community market stalls (Sault Ste Marie and Downtown Sudbury) and parking stall installations. The Architecture & Craft studio (ARCH 5505) has built the structure for a wood drying shed on our property and designed a pedestrian bridge for Sagamok First Nation and Parks Canada. Graduate students fold making into their final thesis work through Fabrication 2 (ARCH 5326) during the final semester.

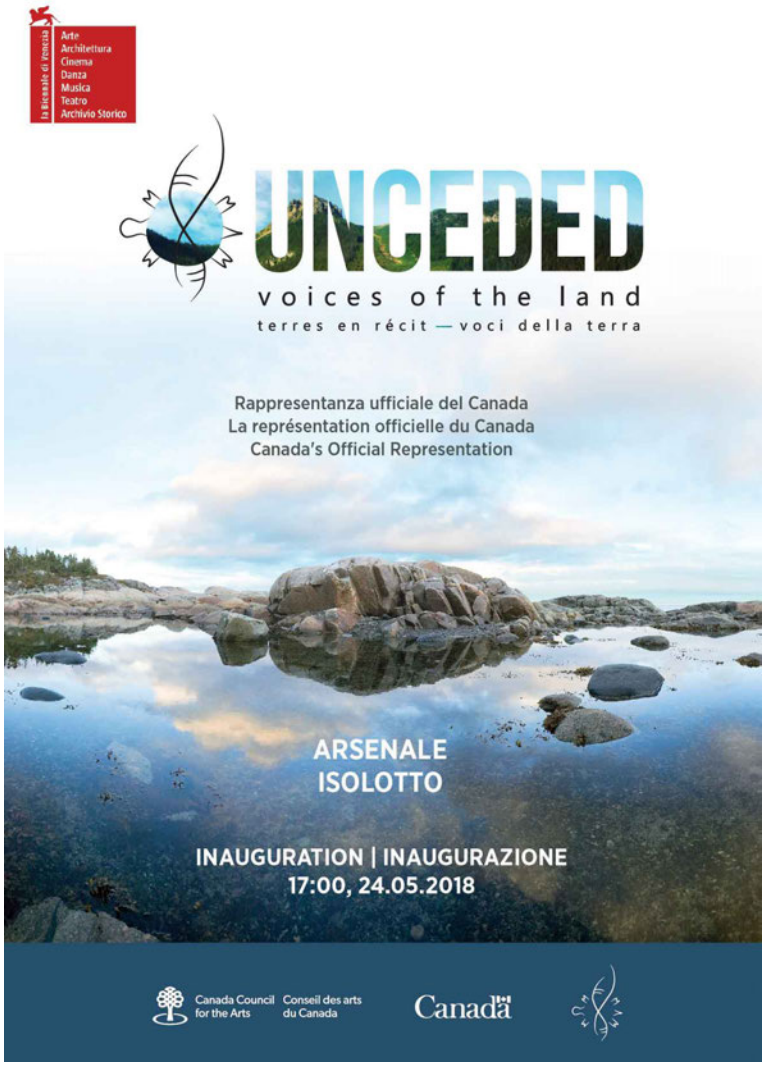
Thus, while various other Architecture Programs have select Design-Build studio projects, what makes our pedagogy unique is that the MSoA's continuous Design-Build philosophy runs throughout the entire Program.

Community-based Design

The MSoA also emphasizes the role that communities play in guiding, and inspiring, the design process. We have collectively tried to keep this as a central aspect to our learning experience, as we engage with communities in our region as a priority.

1.0 Introduction to the Program

The MSoA was well-represented at the Venice Biennale in 2018, making significant contributions to UNCEDED: Voices of the Land, Canada's offcial entry as presented by Douglas Cardinal Architect Inc. Associate Professor David Fortin was the co-curator with Gerald McMaster of OCADU, while Master Lecturer Eladia Smoke, Adjunct Professor Patrick Stewart, and former faculty member and Sessional Instructor Jake Chakasim, were all featured in the exhibit. MSoA students Bohdana Innes and Krystel Clark acted as Cultural Hosts for 2-months each during the event in Venice.



Wood Design

From the design of the CLT building to the design of the Structures 1 course (ARCH 2316) and graduate studios, our focus on wood as a renewable building material with expanding possibilities in architectural applications, has helped establish a unique and particular focus on Wood Design.

Indigenous Contributions

The School of Architecture opened in 2013 with a unique Elders-in-residence model for the Design Studio. Various Elders and Knowledge Carriers have generously contributed to the culture of the Design Studios during the first 7 years of the Program. Elders Hilda Nadjiwan, Jerry Otowadjiwan and Juliette Denis were the first Elders to participate in the Program, and over the years our Programs have worked with the Laurentian University "Indigenous Sharing and Learning Centre" to welcome others including Gail Charboneau, Will Morin, Julia Pegamagabow, Rob Spade, and our current Elder-in-residence, Art Petahtegoose. Métis canoe builder Marcel Labelle has also imparted invaluable Indigenous knowledge by building numerous birchbark canoes with our undergraduate and graduate students and faculty. Our Elders and Knowledge Carriers-in-residence deliver lessons and guide students in First Nation and Métis principles. We have learned from Elder Art Petahtegoose and Indigenous faculty members from the main campus on the construction and cladding of a wigwam in Founder's Square. The School of Architecture opened with two full-time Indigenous faculty members, Jake Chakasim (Cree) and David Fortin (Métis), and added Associate Professor Patrick Stewart from 2016-18, and Master Lecturer Eladia Smoke (Anishinaabe) in 2017. We also have upwards of 16 self-identified Indigenous students in the Program.

Since the School opened, we have also partnered with local First Nations (FN) communities, including the Atikameksheng Anishnawbek, Serpent River FN, Wahnapitae FN, Henvey Inlet FN, Batchewana FN, and Sagamok FN. The Chief and an Elder from Atikameksheng led an initial fire ceremony and presided over the School's opening in 2013, as well as the "ground breaking"

ceremony for Phase 2 in 2014. They presided once more over the Grand Opening of the new buildings in January of 2017, including a drumming circle in our atrium.

As a result of our tri-cultural approach, it seemed only fitting that celebrated Indigenous architect Douglas Cardinal gave Canada's newest School of Architecture's inaugural public lecture in September 2013. The School then nominated Cardinal for an Honourary Doctorate, which he graciously received at the LU Convocation in June of 2015. Our entire Program attempts to weave in traditional knowledge and Indigenous perspectives in courses as well as in Design Studio exercises. We also created a course entitled Indigenous Precedents (ARCH 3006) in order to expose architecture students to questions of identity as well as contemporary design for indigenous communities. In 2017, the MArch Program introduced a graduate Design Studio called Indigenous Design (ARCH 5525), which has been taught by Prof. Fortin (working with Batchewana First Nation), Chakasim (working with the MoCreebec First Nation at Moose Factory in 2018), and, in 2020, Cardinal. Scholarships and bursaries to the School of Architecture have been made over the years in order to continue to further our educational mission as a tri-cultural institution, through the funding of Indigenous students throughout the Program.

During our first seven years, Indigenous architects such as Cardinal, Alfred Waugh, Wanda Dalla Costa, Kevin O'Brien (Australia), and Patrick Stewart have been speakers in our MSoA lecture series. We also had invites accepted by Chris Cornelius and Tammy Eagle Bull (though both of these events were cancelled for travel related reasons). We have also invited Indigenous architects Brian Porter and Eladia Smoke to participate in design reviews so that all architecture students are exposed to diverse Indigenous perspectives. As a result of their visits, both Patrick Stewart and Eladia Smoke applied to faculty positions. Métis intern architect Jason Surkan also taught a semester of studio at the School in 2017. We have also had Indigenous external Thesis Readers (Porter, Dr. Deborah McGregor and Chakasim) to support our students' interests in Indigenous design.

Consistent with our community-focussed initiatives, the MSoA established a long-term "MOU" with the Sudbury Métis Council's President, Richard Sarrazin, in order for the School to be able to collaborate on future cultural projects. This resulted in the School hosting festivities to commemorate Louis Riel Day. Professor Fortin completed a SSHRC-funded research project regarding the influence of Métis building traditions in the Canadian prairies and hosted the first multidisciplinary symposium on Métis Architecture and Design (which included Métis architects Tiffany Shaw Collinge, Shawn Bailey and Rachelle Lemieux). Prof. Fortin and Master Lecturer Smoke have also acted as mentors to the Indigenous Homes Innovation Initiative administered through Indigenous Services Canada, and have spoken at numerous events across the country on the topic of Indigenous Design. MSoA's Prof. Fortin was co-curator of "UNCEDED: Voices of the Land", Canada's official entry to the 2018 Venice Biennale (also featuring MSoA current or past faculty Smoke, Chakasim, and Stewart).

Francophone Contributions

We have also taken significant strides to better understand how Francophone teaching and culture is expressed within the Program. With 8 out of our 17 full-time faculty functionally bilingual, and 5 French-speaking Sessional instructors (in 2019-20), as well as a limited pool of local

Ice Station by first-year Francophone students working with Prof. Izabel Amaral, 2016

Francophone architectural critics, the Program has been able to establish a formidable Francophone presence within our curriculum and overall School culture. To support our Francophone initiatives in the School, a Comité des affaires francophones was also established. Furthermore, our Cultural Committee has also adhered to a gender neutral approach to our lecture invitee list that includes one Francophone and one Indigenous speaker each semester. Our library has also included various Francophone lunch events in support of this, while the MSoA plays an active role within the Francophone community through various initiatives.

Lastly, in further support of our aspirations to support our tricultural interests, the MSoA has established 2 Visiting Scholar positions, one Indigenous and one Francophone, that allows us to attract exceptional studio instructors to the School on an annual basis through a stipend funded through our McEwen gift fund. These visiting positions will contribute to an ongoing dialogue with our Francophone and Indigenous colleagues across the country and around the world, further establishing these important aspects of the School's founding mandate.

1.1.2 Strengths of the Program

Given that the MSoA opened its doors in 2013, the strengths of the program are very closely aligned with our identified unique attributes (see 1.1.1 Unique Features of the Program), . These include the following 6 areas: 1) an emphasis on hands-on learning for direct experience; 2) a comprehensive co-op education program bridging between the School and the profession; 3) a program providing leadership in Indigenous Design for all students; 4) a curriculum that offers bilingual (French and English) studio options while celebrating Francophone culture; 5) a growing expertise in wood design given our geographic location; and 6) community-based design that is responsive to northern communities. All six of these areas can be considered as our primary areas of strength, while recognizing the unique challenges they all present (see 3.1 Program Self-Assessment for further evidence of our successes and challenges in these areas).

In addition to the major strengths of our unique pedagogy, the MSoA has also developed a robust undergraduate curriculum culminating in a final integrated design studio that brings together technical and design pedagogy into a year-long (2-term) complex urban building design proposal. The student work from this studio demonstrates a collective understanding about complex large scale buildings that has emerged as another strength of the MSoA program. It is also notable that while our relatively remote location in a mid-sized city presents its own challenges, the City of Greater Sudbury has also presented immense possibilities for the school to further develop our pedagogical strengths. We have relatively easy access to the outdoors for land-based learning, including our own designated area of forest on the Laurentian University campus, which also provides personal leisure opportunities for students, staff, and faculty and encourages an active lifestyle engaged with the natural environment. Sudbury's history of regreening its formerly devastated industrial landscape also provides a unique milieu to teach architecture within. Furthermore, the relatively small population of Sudbury (160,000) creates significant opportunities to engage with local and regional communities, including the Mayor and Council at the City of Greater Sudbury and the regional First Nations, while providing students with affordable living conditions and a walkable downtown environment to learn in.

Lastly, the McEwen International Advisory Board and the generous gift by Rob and Cheryl McEwen, provide the program with a substantial opportunity to further develop specific aspects of our program (see 3.9.3 The McEwen International Advisory Board). Having internationally acclaimed architects, designers, authors, entrepreneurs, and public figures advise the program on its direction and how to further realize the MSoA's potential, is an invaluable source of strength and support. For example, the MSoA has been able to offer scholarships to all students enrolled in our graduate program for international travel related to their studios, and a number of unique scholarships to celebrate student achievement, including travel scholarships to the Venice Biennale. The McEwen gift has also allowed us to sponsor the Sudbury2050.ca international competition launched in February 2020.

1.1.3 Challenges to the Program

From the onset, the Sudbury community and Laurentian University placed the bar high on the degree of uniqueness that the initial Architecture Program set out to achieve. First of all, the Program is in Northern Ontario, in the city of Greater Sudbury, with a population of 160,000. Second, the Program mirrors the tri-cultural mandate of Laurentian University, aiming to educate First Nations, Métis, and Inuit (FNMI) students, along with embracing Franco-Ontarian culture in the region. The original 'Steering Committee' that preceded Laurentian's involvement had rightly decided the Program should be a Co-operative program, in order to address northern industries (such as lumber mills and mining) that are reinventing themselves. This allowed the School to create a Program that has two undergraduate and one graduate Co-op experience, in both industry and design offices that provide student access to a variety of employment that they would otherwise not be exposed to. And then, as the Program was being shaped, several layers of other 'radical' pedagogy entered into the design of the Architecture Program. These include employing Elders and other Indigenous Knowledge Carriers to be in the Design Studio, not as architecture instructors,

but as guides, experts in ceremony and language, Indigenous craft, sustainability, etc. These Indigenous teachers provide a cultural depth to our Program that is unique to any other School of architecture in colonized territories. While their involvement is not easy to measure 'directly,' they are providing our students with a wealth of experience that is showing itself as our students work with First Nation (and other) communities. This approach to learning has much to do with respect for all life, humility, listening, etc. However, it is not an established model to have Elders-in-residence in a School of Architecture, so running this smoothly presents several challenges that we are continuing to work through. Even the fact that the Elders are paid by the hour makes additional meetings or ceremonies awkward unless planned in advance.

Having all of our Design Studios be offered in French as well as English is also fine on paper, and they have been passed at the University. However, there are several challenges to have the students present in French to French-speaking critics, due to being few in number in the region. In the first years this did work, but as the School grows, more studios in French means more French-speaking full-time faculty, more French (or bilingual) visiting critics, etc. Now that we have been successful in having 8 full-time French speaking professors plus one long-term sessional instructor who is Franco-Ontarian, and numerous other French-speaking Sessional instructors, there is a critical mass of educators who are beginning to experiment with other ways of having vertical design reviews in French, for instance.

Finally, the ongoing Design-Build philosophy of the School adds a degree of complexity to the overall Program. We have a series of projects that everyone participates in during years 1 and 2 (the Ice Station and Indigenous-led artefact projects in second-year), and while the Design Studio projects change from year to year in third and fourth-years, efforts have been made to continue this trajectory. For example, during the previous two years, third-year students have spent a month working with a local non-profit group to design and build play structures in the neighborhood of Copper Cliff, while fourth-year students initiated their comprehensive studio by building installations in parking stalls throughout Downtown Sudbury in 2019, and at the site of their project in 2020, working with the local Farmer's Market as partners. Our graduate studio themed on "Craft" has also built a structure for an outdoor wood drying space on our property and an exciting all wood pedestrian bridge has been designed for future construction with Sagamok First Nation and Parks Ontario.

All of these initiatives have already demonstrated that our current Fabrication Lab cannot easily accommodate so many large projects under construction at the same time. This already necessitates substantial coordination, enforcing our safety precautions, and also has initiated conversations about our need to have more space to build and assemble so many projects. The space formerly identified as our "Cultural Room" (for Indigenous teachings specifically) has needed to transform into a secondary assembly space (and classroom occasionally) because of this issue of large scale design-build activity.

There have been a myriad of other challenges in establishing a new School of Architecture, some of which are outlined below:

- While the University did welcome the School of Architecture with open arms, there was initially a steep learning curve regarding what "Design Studio" and "studio culture" meant for the University., This took many hours defending and discussing. Over the years, this has seemingly been clarified and supported, though there is often still ongoing discussion about associated costs of a studio-based Program.
- The University projected a School that will house up to 400 students over our 6 year combined program (280 BAS + 120 MArch). Our growth projections were exceptionally high from the University, and with very little attrition considered, so we are constantly being told that our enrollment numbers are not meeting projections. We currently have approximately 330 students with small increases annually, but we may not reach 400 for a number of years. Related to this, the graduate Program numbers were projected at 60 students per year, whereas 40-45 per year would be at the upper limit in relation to other Canadian Schools that have a 4 + 2 Program.
- There have also been internal 'growing pains,' with new faculty and student cohorts arriving every year until the 2019-20 academic year when we finally reached 'steady state.' To keep everyone abreast of our recent history, and to be on the same page in terms of the unique tri-cultural aspirations of the Program, with Co-op challenges and design-build projects, is to be expected. However, overall, these have formed a series of interrelated challenges.
- There is also a major axis between the School and our surrounding communities. This, too, is a challenge, due to the logistics and expense of travelling in the North with a class of 70 students at a time. In order to address this, in 2014, we added a 'student travel fee' of $75.00 per term in order to offset some of the larger expenses associated with field trips and visiting northern communities for Design Studio projects. We have since increased these fees to minimize out-of-pocket expenses during the school year. However, most of these travel fees go towards field trips to urban centers such as Toronto, Montréal, and Chicgao. While all of our travel opportunities

have enriched our Program immensely, visiting and building relationships with our remote and neighbouring northern communities remains one of the original reasons to establish this particular school.

- Related to this, we have successfully attracted a diverse full-time faculty. We are suffering some challenges in retaining full-time Indigenous faculty, having had 2 members resign not long into their contracts. We are certainly aware of the curriculum that we have created and it may take some time to become fully realized
- We have started to conceive of a network of Indigenous visitors as a support network to offset relying on full-time Indigenous faculty as a possible strategy.
- Conversely, we have been relatively successful in attracting and retaining both First Nation and Métis students, having graduated 4 MArch students last year and 2 this year whose thesis work addressed relevant Indigenous topics.
- Establishing a successful Co-operative program has taken time and passion, but it was one of the tenets of the original community vision. The creation of the Co-op is virtually like running a program within a Program, but our unique industry and industrial design Co-op placements have already been successful. We are working on developing more Co-op opportunities in French settings but this remains an ongoing challenge.
- Every year, due primarily to the delayed approvals for new hires, we have had difficulty advertising for Sessional studio instructors in a timely manner, resulting in us needing to hire late in August, with most of them needing to relocate to Sudbury, which is a difficult condition for most of them. Given our relative remoteness, and lack of local architects who are qualified or free to teach, we continue to struggle to find qualified Sessionals compared to other urban centers.
- As an academic unit, the MSoA has a stand-alone budget, which means that we are required to have our revenue equal our expenses. This agreement was made when Laurentian University agreed to have a School of Architecture join the University. More will be said about this in section 3.8 (Financial Resources). However, establishing our budget has been difficult to have clarity on as the School Director does not see full revenues to better understand and guide our response to required budget cuts, enrollment shortages, and overall expenses from the University.
- Overall, the Program has not been approved to bring on more staff to assist with administrative tasks in the School. Compared to comparable programs, our staff complement is low. This results in faculty taking on more administrative tasks than in a normal situation, which impacts the amount of time to pursue research. Every unit Annual Report to the Dean's office over the past 3 years has emphasized this constant struggle. We have recently been approved to continue to hire a Digital Fabrication Technologist, but we have also requested a Community Outreach and Communications position, which was approved contingent on the School paying for the position out of our McEwen gift fund, despite this originally being included in the staffing plan for the Program (initially this was an Artist-in-Residence position but the School Council voted to convert this into a staff position based on our needs to advance our community-based initiatives). We remain in constant conversations about the possibility of a graduate Administrative

MSoA Student designed-and-built Ice Stations, 2016, Laurentian University Main Campus behind.

Assistant and a second Co-op Coordinator as the next staff positions required to deliver the Program properly.

- While much of our energy has been directed towards our tri-cultural mandate, the Black Lives Matter movement has inspired students and faculty to question why the colonizing cultures are emphasized over the many other cultural backgrounds of our community. This is something we are now actively responding to in order to further decolonize our curriculum and ensure that the MSoA is a safe space for diversity and multiculturalism moving forward.
- Lastly, COVID-19 has provided immense challenges for our Program as our curriculum is based on hands-on learning and community-based projects. We ended our Winter 2020 term remotely and will also deliver our Fall 2020 semester completely online. As with all programs at the University, across the country, and around the world, the disruption this has caused to our overall ability to teach, research, and progress our Program according to its mission, cannot be overstated. Please see https://laurentian.ca/COVID-19 for updated information regarding Laurentian University's response to COVID-19.

In summary, the model that we initially proposed and that was approved, is rich and complex and reflects many of the northern realities not only of Ontario, but of Canada. Faculty and students alike have bought into the idea, but we are aware that there is much hard work needed to preserve the unique attributes of our Program's Mission and relevance to northern communities, while meeting the demands of a professional architectural education.

1.1.4 Program Mission Statement

The Program Mission statement was never a requirement from the University. The initial Project Steering Committee, Chaired by Laurentian University VP Administration, Carol McAulay, wrote an "LAL Sustainability Manifesto" in May of 2012, as a guide for the design of the building and the Program at the same time. The following LAL manifesto paragraph was the only "Project Mission Statement" formally endorsed by the University prior to the School opening in 2013:

> The mission of the Laurentian School of Architecture (LAL) is, first and foremost, to educate succeeding generations of architects to engage in the design of sustainable buildings and communities within the geographic and cultural context of the North. Through this process of exploration and discovery, the school shall foster an ongoing dialogue with its civic and academic community so that ideas about sustainability reflect emerging realities. (May 2012 - LAL Project Charter)

In October of 2016, as the Graduate Program was approved in Ontario by the Quality Assurance Council (QAC), we then wrote a Mission Statement that describes the Master of Architecture Program. We have used this statement also for recruiting and to guide our Program's Strategic Plan goals outlined the following year, in 2017:

> The Master's degree in Architecture (MArch) is unique in Canada. The Program draws heavily upon the study of northern community needs coupled with an integrated approach to building systems for northern climates. Building with wood, design for climate change and digital fabrication are three areas of study for advanced graduate work, including a final design Thesis. The Program length is two-years, with continued focus on experiential learning through design-build and community-design projects. Design Studio options include 'Architecture and Craft,' 'Indigenous Design' or 'Community Building.' Two terms are devoted to Co-operative education, placing students in design related offices locally, nationally and internationally. Specialized research is presented through research seminars while professional practice is emphasized through Co-operative education and an advanced course in architectural practice. Courses on fabrication further expose students to the relationship between architecture and industry through making. A design Thesis forms the spine of the second year. Design courses (including Thesis) and Co-operative placements are offered in both French and English.
>
> The Program strives to become recognized nationally for Indigenous Design at the graduate level. Indigenous worldviews and knowledge are present throughout the Program, delivered in particular courses and through various community settings. The knowledge and skills gained in the professional program prepare students to enter into the profession of architecture. Graduates can expect to find employment as intern architects or enter into a variety of related design fields including urban design, community planning, sustainable design, environmental design, or digital fabrication. (October 2016 - Ministry of Education)

This statement is on the QAC website (*www.oucqa.ca*) and we have used it widely to discuss the overall Program. This statement also guided our most recent MSoA Strategic Plan Goals.

We have not officially produced a formal Mission Statement for the BAS Program, however, each year LU publishes its *Viewbook* for recruiting, where we present the following text:

> Begin the process of lifelong learning in a tricultural program that is unique in Canada and build a

portfolio of exciting and innovative design-build projects. Experience a unique architecture program, which highlights design and culture for Northern Ontario with an emphasis in developing expertise in wood and sustainable materials. Focus on design, culture, technology and professional practice and enjoy courses on the main Laurentian University campus, and at the McEwen School of Architecture, Laurentian's downtown satellite. Challenge your creativity through the application of practical building solutions for northern climates, taking into account cultural sensitivities, diverse histories and community profiles. (*LU Viewbook* 2020)

1.1.5 Mission of the MSoA

The Project Mission, from the School of Architecture's "Project Charter" (2012), stated:

> The Laurentian University School of Architecture, or, Laurentian Architecture Laurentienne (LAL), is the first new architecture school to open in Canada in over 40 years. LAL will become a ground-breaking academic institution that, through activism, research, and engagement, will develop new knowledge and innovation positively altering the way people of northern communities live, learn and grow.

The Project Steering Committee also engaged in writing the "LAL Sustainability Manifesto" to guide the design of the building as well as inform the School's pedagogy (See 1.1.3 above). That document grew out of the mission statement above.

In August 2020, the MSoA School Council ratified our Constitution, which includes the following Mission Statement, adapted from the above precedents, as the first to be officially endorsed by the Program itself:

> *Hurry Slowly… Hâtez-vous lentement… Mino-Piiskan Ezhaayin...*
>
> *The mission of the McEwen School of Architecture (MSoA) is, first and foremost, to educate succeeding generations of architects to engage with communities in the design of sustainable buildings within the geographic and cultural context of the North. Through this process of exploration and discovery, the school fosters an ongoing dialogue with its civic and academic community so that ideas about sustainability reflect emerging realities.*
>
> *The philosophy of our Program is founded upon pride of place and a culture of caring. We are inspired by the resiliency of northern people and the unique beauty of the northern Ontario landscape. Applying the lessons learned in the North in ways that inform a reciprocal relationship between the local and the global, we place pedagogical emphasis on social engagement, community design, cultural identity, sustainability, Indigenous perspectives, design-build and craft, technology and fabrication and wood construction.*
>
> *The MSoA grounds itself in shared values of RESPECT, INCLUSION and COMMUNITY. The Program reaches beyond Laurentian University's tricultural mandate (Indigenous, Francophone and Anglophone), further emphasizing diversity and equity as central to our Program.*

Initial Logo of the Laurentian Architecture Laurentienne Program (2012)

1.1.6 Institutional Context

Imagine 2023

There are two relevant documents that effectively demonstrate how the unique aspects of our Program are aligned with our institutional context. The first is the *Laurentian University Strategic Plan Imagine 2023 (2018-2023)* which identifies the strengths of the University as follows:

- **Indigeneity** - Laurentian University will be a leader in the process of reconciliation through transformative postsecondary education and research
- **Francophone cultures and language** - Laurentian University will be a catalyst for vibrant Francophone cultures and communities across Ontario and beyond.
- **Interdisciplinarity** - Laurentian University will create interdisciplinary knowledge to offer compelling solutions for society's complex challenges.
- **Mining and environmental sustainability** - Laurentian University's expertise in mining and environmental stewardship will drive knowledge creation, economic prosperity, and ecological sustainability, locally, nationally, and internationally
- **Well-being** - Laurentian University will provide innovative solutions to address particular health concerns and the general well-being of the North and its populations.

Furthermore, the LU Strat Plan states the following 5 core values shared by the institution:

> 1) The North inspires us, 2) Student success is our success, 3) Teaching and Learning define us, 4) Curiosity drives our Research, and 5) Relationships are our priority.

All 5 outcomes of the first listed value - "The North Inspires Us" - relate directly to the MSoA Program objectives listed above:

1. We will enhance our relationships with municipalities, agencies, organizations, First Nations, and Indigenous communities, with a coordinated approach to creating beneficial initiatives for the North.

- As noted, we have already partnered with many First Nations communities in northern Ontario and Quebec, and other municipalities in our region.
- We commissioned a report by Jake Chakasim on the potential for a long-term outreach program working with Northern College in Moosonee and are currently exploring logistics of how to establish this collaboration.

2. We will demonstrate our ongoing commitment as champions of French cultures and language, by offering and resourcing vibrant programs and services in French.

- As discussed, we have been developing ways to enhance our Francophone experience in the School from its inception.
- Guest scholar Jean-Bruno Morisette joined the School as a Sessional instructor in 2019 to pursue a research project while in our community.
- We will be pursuing a Visiting Francophone Scholar position based on this model in future years.

3. We will incorporate a holistic approach to wellness in our everyday practices as we embrace the beautiful natural environment that our campus offers, informed by the Okanagan Charter: An International Charter for Health Promoting Universities and Colleges (2015).

- In June 2019, the University designated approximately 34 hectares of land surrounding Bennett Lake on Laurentian University property, specifically for use by the MSoA as an Outdoor Research and Teaching Site. This site has now begun to be used for land-based teachings and a site for hypothetical projects in second-year studio, and there are plans for the School to teach about sustainable forestry practices by selectively harvesting and milling wood from this site for future Design-Build student projects.
- Central to our student experience is providing opportunities to engage with the northern Ontario landscape such as canoe trips, snow shoeing, ice skating on Ramsey Lake, site analysis in local areas such as Kivi and Rotary Parks, working on design-build projects outdoors, and field trips throughout the region.

4. We will be a hub for arts and culture, increasing awareness of the artistic and cultural contributions of Indigenous, Franco-Ontarian, and other Northern artists.

- Our annual student-led Nuit Blanche event has become one of the premier winter arts events in the region. This exhibits the talents of our students and faculty to our greater community while bringing in other talented artists from the city and beyond.
- Our faculty and students have participated in the design stage for the Place des Arts (a local Francophone arts complex currently under construction) right across the road from the MSoA on Elgin Street. This will further strengthen our Francophone links.
- Our faculty and students have consistently contributed to exhibits at the Galerie du Nouvel Ontario and have collaborated with the Théâtre du Nouvel-Ontario.

- Students and faculty have contributed to the annual Up Here Festival celebrating the arts. The MSoA has been a partner for the festival multiple times, offering the use of our building for assistance with installations, pop-up concerts and accepting a new sculpture on our property in 2019 as part of the festival.

5. We will equip graduates to practice, teach, and contribute as employees of choice in francophone, rural, and Indigenous contexts, throughout the North and beyond.

- Our curriculum has enabled our students to work on Co-op placements in northern cities such as Yellowknife and Iqaluit. Patrick Stewart and Alfred Waugh (Formline Architecture) have hired our students to work on various Indigenous projects in their firms.
- We have a high graduate employment rate both regionally, provincially, and beyond, demonstrating the perceived value of our curriculum to contemporary architectural practice. Please see Appendix N for our Co-op Program statistics.

Meanwhile the following Outcomes (13 of the 23 in total) also directly relate to our Program:

6. Laurentian students in all faculties will benefit from enhanced leadership development and experiential learning across the institution, in community and industry settings, as we will double the number of work and experiential learning opportunities. (Student Success is our Success)

- The Co-op Program is unique in the University and in relation to other schools of architecture in the country. We have more students enrolled in Co-op placements than any other program on campus.

8. Laurentian students will become more familiar with Indigenous ways of being and principles of reconciliation through various aspects of campus culture. (Student Success is our Success)

- See “Indigenous Contributions to the MSoA” in 1.1.1.

14. We will be a national leader in Indigenous education because of expanded Indigenous curriculum offerings across all faculties. (Teaching and Learning Define Us)

- See “Indigenous Contributions to the MSoA” in 1.1.1.

15. We will demonstrate support for our vibrant high-quality accredited programs by providing the appropriate resources to meet external accreditation requirements. (Teaching and Learning Define Us)

- This is the process we are engaged in with this APR

16. We will undertake culturally appropriate research that enhances mino-bimaadiziwin and wellness among Indigenous peoples and other northern populations. (Curiosity defines our research)

- Dr. Émilie Pinard has been a co-researcher in the “Living in Northern Quebec: Mobilizing, Understanding, Imagining an Interdisciplinary Research Partnership” (*http://www.habiterlenordquebecois.org/*), which has as its research subject the culturally appropriate and sustainable planning of Innu and Inuit habitats. She has recently been named a UNESCO Chair.
- Dr. David Fortin has worked with the National Research Council of Canada to coordinate a community-led housing design process for communities in four remote northern locations (NWT, BC, Manitoba, Ontario), working with 4 different Indigenous architects, as well as acting as a mentor and architect for the “Indigenous Homes Innovation Initiative” administered by Indigenous Services Canada. His earlier SSHRC-funded research project explored appropriate design approaches informed by Métis culture in the Canadian prairies.
- Dr. Tammy Gaber’s SSHRC-funded research explored how Muslim culture and mosque design intersect with northern landscapes in an important exploration of evolving cultural conditions in northern Canada.

Architect Brian Mackay-Lyons speaking at the MSoA International Wood Educator’s Conference, 2019.

18. We will influence global audiences with our research and expertise in environmental stewardship of water and land. (Curiosity defines our research)

- On September 12th and 13th, 2019, the MSoA hosted an "International Wood Educators Conference." The conference assessed the varying approaches to wood construction education in Canada and Europe. Presenters came from across Canada, England, Austria, Switzerland, and Norway. The conference looked at teaching by making through experiential, hands-on, design build courses and projects; teaching by design through architecture Design Studio pedagogies; teaching by the book through lecture courses in architecture and engineering; and teaching by example through case studies of projects by practitioners. Presentations showcased innovative and experimental pedagogies spanning timber structures and craft from the fundamental to some of the world's most contemporary digital fabrication methods. The conference was organized by Master Lecturer Randall Kober with the support of WoodWorks Ontario, FedNor, and the Mass Timber Institute.
- Our Outdoor Research and Teaching Site at Bennett Lake in Sudbury will provide a unique opportunity for our Program to demonstrate environmental stewardship through actively caring for our University's forest while harvesting material from it and building with it.

20. We will be leaders in sustainable community development because of our contributions to social innovation and policy research. (Curiosity defines our research)

- We already have established leadership in this area through research initiatives by Profs. Pinard (UNESCO Chair) and Fortin through their work with Indigenous communities. Prof. Fortin has worked with members of the RAIC Indigenous Task Force and Joseph Kunkle of MASS Design group (USA) to advise Indigenous Services Canada on how to foster Indigenous-led housing design processes within government-funded programs.
- Dr. Tammy Gaber's research into gender and cultural space, with an expertise in Mosque design, is also providing leadership in social design questions, while other faculty members such as Dr. Kai Mah (SSHRC-funded research creation project on the topic of Democratic Early Childhood Development) based on his current work in South Africa.

21. We support the Truth and Reconciliation Commission "Calls to Action" and will respond by creating a task force to identify priority actions, beginning by offering cultural safety training and opportunities to learn the Anishnaabemowin language to faculty, staff, and students. (Relationships are our Priority)

- Our Elders and Knowledge Carriers-in-residence program provides the MSoA with cultural guidance on how to move forward in a positive way towards reconciliation.
- Our Indigenous Faculty have taught a range of subject material including a broad range of Design Studios and Professional Practice.
- A 2020 MArch Thesis student, Jessica Haire, did her design thesis with direct reference to particular "Calls to Action" from the T&R document.

Many of the other listed Outcomes also relate to our School's aspirations and current program delivery (enhanced student experience throughout donations, increased inclusion and diversity, and efforts to promote student health and wellness).

Laurentian University Academic Plan - 2020-2024

The second relevant University document that demonstrates our alignment within our institutional context is the Laurentian University *Academic Plan (2020-2024).* Of the 12 key goals identified by the Academic Plan, the following 10 are directly related to the MSoA Program structure and projected growth:

Strategic Development of Academic Programs

1. Build and support flexible innovative and timely academic programs that provide the foundation needed by our graduates to become productive critically engaged members of society (supported through our Institutional Quality Assurance Program (IQAP) and accreditation processes).
2. Enrich our French language programming.
3. Enhance our bilingual opportunities.
4. Enhance our Indigenous programming and support the success of our Indigenous students.
5. Drive the development of interdisciplinary opportunities at the course and degree level.
    - See points listed in *Imagine 2023 Strategic Plan* Outcomes above.

Student Success and Retention

6. Attract and retain graduate students through strategic growth of attractive and competitive thesis-based, course based, and professional graduate program offerings.
7. Become a destination of choice for international students.
    - Our MArch Program is currently projected for incremental growth and we expect to be able to recruit more international students

through the introduction of our Qualifying Year program and expanded web presence in future years.

Support for Faculty Members in the Continued Development of Innovative Pedagogies

8. Grow research, scholarship and associated creative activities within our high-quality academic programs and translate their outcomes into productive benefits for society.

Alignment with External Opportunities and Stakeholder Priorities

11. Strengthen experiential learning and leadership development opportunities.
    - See points listed in *Imagine 2023 Strategic Plan* Outcomes above.

University Contributions to and from the MSoA

In order for the MSoA to achieve our goals, as aligned with the priority areas for our institution, requires constant interaction and collaboration with the University at large. In terms of university governance, we have faculty and student participation in various Faculty and University committees, such as the following:

- The MSoA Director sits on the Faculty of Science, Engineering and Architecture (SEA) Executive Committee, the SEA Faculty Council, the LU Leadership Group, as well as relevant ad-hoc committees such as the COVID-related decision-making committees during the Winter and Summer semesters of 2020.
- Faculty members currently sit on the SEA Curriculum Committee and the SEA Conseil des programmes en français
- Faculty and students sit on the SEA Student Appeals Committee
- We currently have faculty representation on LU University Senate, as well as the LU Health and Safety Committee
- We have faculty representation on the Laurentian University Faculty Association (LUFA)
- We have previously had faculty representation on the LU Academic Regulations and Awards Committee and CELP (Council of English Language Programs)
- The Graduate Coordinator sits on the LU Graduate Council
- We have faculty representation with the LU Maamwizing Indigenous Research Institute

The Dean's Office, in particular, works closely with MSoA faculty and staff to administer the operations of the school. We have also maintained good communications directly with the interim Vice President Academic's office (Dr. Serge Demers), for those items needing more institutional support or attention.

In terms of intellectual and social life of the institution, we have always maintained a collaborative spirit with our university colleagues. MSoA faculty have served as Thesis review/exam Chairs for the Faculty of Graduate Studies and have provided guest lectures to non-architecture courses. Our students have enlisted non-MSoA professors to serve as second Readers on their MArch theses. As evidenced in our comprehensive list of guest lecturers and letters of support from our LU colleagues, we have had many LU professors engage with our students through guest lectures and studio reviews throughout the 7 years of the Program (see 3.4.6.1). Similarly, our faculty have collaborated with university colleagues on various research projects and university initiatives (for example the building of the wigwam on campus and hosting a student-led powwow at the school in 2018). The MSoA's downtown location has also become a popular destination for university events, such as the inauguration of our current president, Dr. Robert Haché, in 2019.

At a curriculum level we have noted a consistent interest in our BAS students obtaining a minor in Environmental Studies as part of their degree, which has been accommodated by working with our colleagues in this department. In 2020 we established a Certificate of Environmental Studies for MSoA stduents. We have also a number of non-architecture students approved to take some of our courses (such as Design for Climate Change, Architecture and Ecology, Sacred Places, and Canadian Art and Architecture).

Lastly, as noted in the letter of support froom Dr. Ramesh Subramanian, Director of the Bharti School of Engineering at LU (See Appendix P), an external consultant has identified significant possibilities for cross-appointments and even architectural design as an integral part of their planned undergraduate program in Civil Engineering.

1.2 Program Action Plan and Objectives

> *Accreditation follows an action plan that guides the Program in achieving the objectives of its mission. This plan, which should be used to structure the Program's self-assessment process, helps the visiting team understand the Program's role within the institution and the parameters of its future development.*
>
> *The APR must include:*
> *• the Program's action plan and objectives developed in accordance with institutional norms; and*
> *• its measures of success and a timeline for executing the plan.*

MSoA Strategic Plan Goals, 2018-22

During the summer of 2017, the MSoA School Council developed a strategic plan for 2018-2022 through a School Retreat discussion. The six (6) goals of the *MSoA Strategic Plan* was agreed on by the School Council as per university norms:

Building upon our existing pillars of RESPECT, INCLUSION and COMMUNITY, by 2022 the McEwen School of Architecture aspires to:

• Create an internationally recognized architectural "Hub" as an umbrella for teaching, research and community engagement;
*• Establish leadership in **Design-Build** culture, hands-on active learning, and collaborative research-creation;*
*• Strengthen our capacity for "**Community** responsiveness" in **northern** and remote environments through community partnerships;*
*• Become the leading architecture school in Canada for **Indigenous** design;*
*• Become the leading architecture school in Canada in new **wood** technologies in the boreal forest region;*
*• Enrich **Francophone** culture by remaining the only School of Architecture outside of Québec to offer Design Studios, electives and Co-operative placements in French.*

The goals for the *MSoA Strat Plan* are essentially to reaffirm our areas of focus and strengthen them, acknowledging that we were still very much a developing Program. Thus, the measures of success for each Strategic Plan goal will be assessed by the number of initiatives that have been undertaken that further our progress in each area. The timeline for the goals will remain 2022 and will be assessed in more detail at that time through the following means: 1) community surveys (internally to students, faculty, and alumni, and to community partners as applicable), and 2) external evaluations and letters of assessment. For the purposes of this report, surveys have been undertaken to offer a sense of our progress to date. These, as well as summaries of our progress, are included in Section 3.1, Program Self-Assessment.

While the above outlines the *MSoA Strat Plan (2018-22)* and the *LU Strat Plan (2018-23),* the first five years of the MSoA developed under the previous *LU Strat Plan (2012-17)*. The objective that related directly to the new School of Architecture in the previous Strat Plan was No. 4: COMMUNITY RESPONSIVENESS. Under this Objective, the LU Strategic Plan text read:

> *"Laurentian University was founded to serve resource based and rural regions. Fresh water surrounds us in Greater Sudbury and Barrie and is a key element in the Laurentian identity with our focus on "Clean Water Now and Forever" and on healthy communities through professional health programs, including the Northern Ontario School of Medicine. Laurentian University is vital to the socio-economic and creative life of the communities in which we live, learn, and work."*

Outcome # 24 of the *LU Strategic Plan* (under Community Responsiveness) went on to further articulate that in order to achieve this Aspiration by 2017 we will have:

> *"Established a cutting-edge curriculum that draws students internationally to the School of Architecture in downtown Sudbury."*

We feel that we have achieved a unique (i.e. cutting-edge) curriculum since the School's inception. What makes our curriculum unique in Canada is its tri-cultural mix of students and faculty, beginning with our first year. As well, the incorporation of Elders-in-residence, focused courses in wood design, a unique Co-op Program in industry as well as in design related fields, and the continuous focus on Indigenous architecture and knowledge all contribute to an architectural education that studies the local (Sudbury and environs) as well as the global (First Nations, Scandinavia, Germany). For example, Dr. Tammy Gaber's student ice hut project was recognized with an Honourable Mention at the "International VELUX Awards 2014" ceremony in Vienna in the fall of 2014. Students have had the opportunity to join faculty members on structured travel-study trips to Bergen, Norway (where they won First Prize at the Bergen International Wood Festival in 2016) and Dinkelsbühl, Germany, which contribute towards becoming part of a global "Northern" network in design and architecture.

Within its first seven years, the MSoA has been actively engaged in "Community Responsiveness" by being ever present in the downtown community through festivals and our own Nuit Blanche each January as well as partnering with community groups including: Rotary Park, Dynamic Earth, Wahnapitae First Nation (WFN),

Riversedge Developments (Mill Square) in Sault Sainte Marie, Powassan & District Union Public Library, Henvey Inlet FN, Chapleau's Maison Boreal, Sudbury Arena, Batchewana FN, and the Walking With Our Sisters Memorial Exhibit. All of this is consistent with the mandate of the McEwen School of Architecture to educate students from the North, particularly Northern Ontario, as well as to partner with local groups in order to respond to a variety of community needs.

Other ways in which the Program's strategic goals developed in accordance with institutional norms include making presentations on the new Program to the LUNEC (LU Native Education Council); presenting BAS and MArch courses for approval to CELP (Council for English Language Programs) and CPF (Conseil des Programmes en Français) for French courses; presenting our MArch Graduate Program to the ACAPLAN (internal to LU) and then following the extensive IQAP (Institutional Quality Assurance Program) process with the VP Academic and Provost in concert with the Ministry of Education for all new graduate programs. Our Graduate Program was approved on the 6th of March 2017 (see Appendix B) for inception beginning in September 2018. Each of these steps in the process of Program development inquired as to how we were responding to the LU Strat Plan Objectives and Outcomes, so we were very much held accountable to institutional norms.

Finally, bullet Number 15 in the current *LU Strat Plan* (2018-23), under "Teaching and Learning Define Us," states a clear goal of assuring resources for accredited programs that grew out of the larger University consultation that we were part of: "*We will demonstrate support for our vibrant high-quality accredited programs by providing the appropriate resources to meet external accreditation requirements.*"

Photo: Bob Gundu

Progress Since the Previous Site Visit 2.0

2.0 Progress Since the Previous Site Visit

> *Accreditation is contingent on the assurance that deficiencies, both minor and serious, are being systematically addressed.*
>
> *The APR must include:*
> *• the Program's summary of its responses to the previous team's findings (VTR) as documented in the Annual Reports (AR). This summary must address the conditions identified as "not met," as well as the "causes of concern." It may also address the conditions identified as "met" or it may address "team comments."*

By way of introduction, the MSoA Graduate Program had to have IQAP approval, with a site visit at Laurentian by Dr. Myriam Blais (Laval) and Dr. Kendra Schank Smith (Ryerson) from April 17-19, 2016. Their positive "IQAP External Report" is dated 01 May 2016. Subsequently, LU began its "Plan for Initial Accreditation" with a letter from VP Academic, Dr. Pierre Zundel, to the CACB dated 06 March 2017. The CACB conducted an "Eligibility Visit" at Laurentian from May 17-19, 2017 (with Therese Leblanc, Mourad Mohand-Said and Dr. Anne Bordeleau), with a positive VT Report and CACB letter dated 14 June 2017. Finally, the Program's Candidacy Visit took place in Sudbury from March 10-13, 2018 (chaired by Professor Marc Boutin (Calgary) with Mourad Mohand-Said and Practitioner Brian Gregorsen). Following another positive VT Report, Candidacy status was granted to our Program by the CACB in a letter dated 14 June 2018.

(See Appendices for formal documentation regarding these important milestones).

2.1 Summary of Responses to Team Findings

Regarding the report from the previous Eligibility Visiting Team (VT), the Candidacy VTR noted that "The Eligibility Visiting Team articulated no key concerns in their assessments, and therefore, no key progress items were to be addressed by the Program outside of an expected evolution in preparation for the Candidacy Visit."

As this was our CACB Candidacy Visit, the VT also noted that the Program Response to the five (5) CACB Perspectives were all 'met.'

A. Architecture Education and the Academic Context [met]
B. Architecture Education and the Students [met]
C. Architecture Education and Registration [met]
D. Architecture Education and the Profession [met]
E. Architecture Education and Society [met]

In the section summarizing these CACB Perspectives, the VT's General Team Comment was:

> *"The McEwen School of Architecture offers a comprehensive curriculum that responds to the five CACB Perspectives. The response to these Perspectives is evidenced within a program that includes professional practice courses, integrated Design Studios, field trips, design-build and fabrication labs, and Co-op education programs, all centered around social awareness, diversity, and environmental and sustainable issues within the geographical and cultural context of the North. The strong community commitment as well as the potential for collaborative architectural education, is manifested in the physical design of the facility and program of the MSoA. The unique building design facilitates the interaction between students, faculty, visiting professionals, community members, and its tricultural mandate within the Design Studio and other public spaces. The McEwen gift to the school, announced in 2016, and used for both the completion of the building and for programs intended to enhance the student experience, is a key asset for the school. Taken as a whole, the MSoA structures and delivers a progressive and ambitious vision of architectural education."*

In summary, of the 11 CACB Conditions for Accreditation that we were being assessed against - including number *2. Program Self-Assessment* - the Program 'met' all 10 that were applicable, with no. *3. Public Information* being not applicable at that time. The Team Comment was: "The CACB Condition 3 does not apply to this Program as it has not yet achieved Candidacy Status or Initial Accreditation at this time. During the Candidacy Visit, the Student Performance Criteria (SPC) were also not being assessed."

2.2. Causes of Concern and Team's Recommendations

In Section 5 of the Candidacy VTR, the VT wrote:

> *"CACB Condition 3.11 Professional Degrees and Curriculum requires that a student's education be structured around a balance between Professional Studies, General Studies, and Electives, with a proportion of no more than 60% dedicated to Professional Studies.* ***Currently, the curriculum features 62.5% of the courses dedicated to Professional Studies, and the Visiting Team requests that the Program address this concern during the next step towards accreditation.***
>
> *The Program's well-considered pedagogy outlines a constructive relationship between design thinking and making. Early in the delivery of courses, student design explorations commence with hand drawing and making, and progressively move towards the integration of digital ideation, exploration, and fabrication.* ***The Visiting Team sees a problematic gap between the expectations for student digital production and the formal delivery of instruction dedicated to the development of digital skills.*** *The Visiting Team acknowledges that the profession, including Co-op Program participants, seeks both critical thinkers as well as graduates versed in a variety of digital platforms."*

2.2.1 Response to the 2018 Visiting Team Report

The 2018 Candidacy VTR was very supportive of the school's development to date. As noted above, all 'Conditions' were deemed as having "met" the requirements for accreditation.

There were two areas of concern expressed by the Visiting Team as summarized above (with our emphasis in bold: 1) reducing the percentage of courses dedicated to professional studies, and 2) the teaching of digital skills in the Program to bridge any perceived 'gap.'

In response to the first concern, the undergraduate degree had previously considered four (4) first and second year courses as open to non-architecture majors (i.e. **Design for Climate Change** (ARCH 2036), **Architecture and Ecology** (ARCH 2326), **Sacred Places** (ARCH 1007), **Canadian Art and Architecture** (ARCH 2036). However, following the comments from the Visiting Team, we have also considered five (5) other BAS courses being open to non-architecture majors:

Cultural Sustainability	(ARCH 4016)
Writings in Architecture	(ARCH 3017)
Building Case Studies	(ARCH 4006)
Indigenous Precedents	(ARCH 3006)
Design Thinking	(ARCH 1006)

Once these nine (9) courses in total are considered "General Studies" courses as well, this reduces our BAS 'core' Professional Studies to 57%. Considering that our BAS degree is 120 credits and that we began to address the VT's concern, the current distribution for our BAS Program is as follows:

Professional Studies:	72 credits	(57%)
General Studies:	27 credits	(23%)
Electives (at LU):	24 credits	(20%)

Our MArch degree (48 credits) remains all 'core' Professional Studies, including the graduate **Faculty Research Seminar** (ARCH 5316) and our **Co-operative 3 & 4** courses (ARCH 5915 & ARCH 5925). One section of the **Faculty Research Seminar** (3 credits), on robotics and taught by Prof. Steven Beites, is being considered open to students in the School of Engineering, fostering further collaboration.

Taken together, the combined BAS/MArch professional degree (totaling 168 credits) is now composed of Professional Studies (70%); General Studies (16%) - (Architecture courses that are open to be taken by non-architecture majors); and Electives (14%). In reviewing the CACB Conditions and Terms for Accreditation, 2017 Edition, we noted that there is no longer a requirement for a maximum of 60% of courses to be dedicated to Professional Studies. Although the percentages are now open for the Program to determine, the MSoA has remained committed to the adjusted course structure in response to the last VTR. Any further substantial changes to our Program will require School Council approval and then follow the proper University procedures.

The second concern raised by the Visiting Team was an observation that our students were not getting 'proper' digital skill training to assist them in meeting their senior studio expectations. A course that focuses the most on digital modeling and rendering is **Architectural Communications** (ARCH 4526), that was delivered in the first semester of 4th year. Following the CACB last VTR, the School Council agreed that this course would better serve our students earlier in their education, so we have now shifted it to the 2nd year of the BAS Program. Due to the University process, this required two years to transition the course where we had 2 sections (staggered to allow the transition) in order to ensure that all students received this core course. The course, which will be renumbered ARCH 2526 for the 2021-22 academic year, now works fluidly with 2nd year Design Studio to provide

digital training in Rhinoceros and V-Ray throughout the Fall semester. The 2nd year Design Studio team also implemented a series of Rhino tutorials to support this shift so there is now a digital emphasis during this year of the Program.

We feel confident that this shift in the sequencing of this course is already paying significant dividends in the quality of the digital student work and is increasing their confidence in this area compared to those cohorts who had received it in 4th year previously. We will continue to monitor student feedback on this shift and evaluate our progress to see if there are other possible areas to improve on this concern moving forward.

Finally, as the Candidacy Visiting Team did not assess student work according to syllabi, other BAS courses that address digital learning include **Digital Fabrication** (ARCH 4306), **Structures 3:Building Systems** (ARCH 4316), and **Integrated Design 1 & 2** (ARCH 4505 & 4515). In the MArch graduate program, this includes **Fabrication 1** (ARCH 5306), **Fabrication 2** (ARCH 5326), **Faculty Research Seminar** (ARCH 5316) on robotics, and **Thesis 1 & 2** (ARCH 5555 & 5565).

We are still most engaged in pursuing a hybrid approach to making and representation, where manual and digital craft are not opposed to each other, but are taught as two aspects of architectural representation. This is where the importance of the relationship between the Studio space and the Fab Labs comes into play. This an ongoing aspect of the Program that is still very much in development.

Compliance with the Conditions for Accreditation 3.0

Photo: Bob Gundu.

3.1 Program Self-Assessment

MSoA Student Work Exhibition, 2017

3.1 Program Self-Assessment

> *The Program must provide an assessment of the degree to which it is fulfilling its mission and achieving its strategic plan. The CACB requires absolute candor in conducting and reporting the self-assessment. If done well, it will anticipate the VTR.*

3.1.1 Program Self-Assessment Process

> *The APR must include:*
> *• a description of the Program's self-assessment process and*

University Level

The MSoA BAS and MArch programs have been approved by the Laurentian University Institutional Quality Assurance Program (IQAP), which is designed to be in compliance with the Quality Assurance Framework adopted by the publicly-assisted universities of the Province of Ontario. The Ontario Council of Academic Vice-Presidents (OCAV) has established the Ontario Universities Council on Quality Assurance (the Quality Council). The purpose of the Quality Council is to assure the relevant stakeholders—including students, faculty members, administrators, other educational institutions throughout the world, employers, governments and the public at large—that the undergraduate and graduate programs in Ontario universities meet high standards of quality.

IQAP derives its authority and legitimacy from the Quality Council, and also from the Academic Senate of Laurentian University, the body responsible for academic matters at the University. The authoritative contact between the IQAP and the Quality Council is the Provost. The Senate establishes that its Academic Planning Committee (ACAPLAN), chaired by the Provost, is responsible for the application and execution of the IQAP, and for the assurance of curricular quality assessment at Laurentian University. In fulfilling this responsibility, ACAPLAN works cooperatively with the Vice-presidents, the Deans, the Council of English Language Programs (CELP), le Conseil des programmes en français (CPF), the Faculty Councils and the academic units.

Both the BAS and MArch programs have been approved by the Quality Council as new programs, and the first IQAP cyclical review for the BAS program is concurrent with the MSoA Initial Accreditation process. The requirements for submission to IQAP are closely aligned with the CACB Conditions and Terms, as well as Procedures for Accreditation, and thus the APRs for the CACB process will be mostly considered equivalent, with small addendums added to meet specific IQAP requirements.

Cyclical reviews by the IQAP usually occur every 7 years but ACAPLAN may review at any time. The process for the cyclical review of existing programs involves the following: 1) once the unit self-assessment is submitted to IQAP, the Dean first reviews it; 2) a review committee is appointed by the Provost in consultation with the Dean; 3) a site visit occurs; 4) the committee submits a report; 5) the unit responds, and 6) the Dean responds to both the report and the program response. Lastly, the Graduate Council reviews the report and responses for graduate programs as applicable.

School Level

Following our successful site visit from the CACB Candidacy Visiting Team in March 2018, and in preparation for our CACB Initial Accreditation application, the MSoA embarked on a self-assessment process of the Program that would allow us to gain insights about our progress in areas identified in the *MSoA Strategic Plan* as well as our overall learning context. This was done through two primary processes: 1) online surveys to students, alumni, faculty, and Co-op employers to assess how well we are meeting our mandates, and 2) ongoing School Council meetings and annual MSoA Faculty Retreats where various major items are discussed by the School Council in an attempt to address our perceived strengths and shortfalls. The MSoA also maintains an online document with a list of news and achievements that assists in tracking our progress in various areas.

MSoA Survey - 2020

During the summer of 2020, a series of online MSoA "Self- Assessment Surveys" were issued for the purpose of collecting information for our application to the CACB for Initial Accreditation. These surveys were sent to the following four primary stakeholder groups via email: 1) Current students (62 respondents out of approximately 250, 25%), 2) MSoA Alumni (33 respondents out of approximately 78, 42%) 3) MSoA Faculty (16 respondents out of 21, 76%), and 4) Co-op Employers (39 respondents). The following text introduced all surveys:

> "On September 15th, 2020, the McEwen School of Architecture will be submitting an "Architecture Program Report" to the Canadian Architectural Certification Board to apply for Initial Accreditation. This is an important milestone in the history of our Program and it is essential that we assess ourselves through this process. We are thus sending out a number of surveys to current students, faculty, our alumni, and Co-op employers. We sincerely appreciate you taking the time to fill out this survey to assist us in our process."

3.1 Program Self-Assessment

For students, alumni, and faculty, survey questions focused largely on a variety of topics that relate to the MSoA Mission Statement and Strategic Plan, while also allowing for broader feedback about the direction of the Program. For the purposes of this summary, relevant answers by students, alumni, and faculty directly related to the goals listed in our *MSoA Strategic Plan* (and corresponding lines from our Mission Statement) will be highlighted in order to help assess our perceived progress in these areas. Other important observations relating to the broader curriculum follow.

The Co-op Employer survey is discussed separately as its questions were unique to the Co-op Program.

3.1.2 Faculty, Student and Alumni Assessments of Strategic Plan and Mission Progress

> *The APR must include:*
> *• the faculty, student, and alumni assessments of the Program's overall curriculum and learning context. Feedback may be obtained through surveys and focus groups, but individual course evaluations are not deemed sufficient to provide insight into the Program's substantive focus and pedagogy .*

To structure the self-assessment of our *MSoA Strategic Plan* and Mission, the following section places an emphasis on the following six goals (introduced in Section 1.0), as well as additional supporting text from our Mission Statement.

The MSoA aspires to:

• Create an internationally recognized architectural "Hub" as an umbrella for teaching, research and community engagement;
• Establish leadership in Design-Build culture, hands-on active learning, and collaborative research-creation;
• Strengthen our capacity for "Community responsiveness" in northern and remote environments through community partnerships;
• Become the leading architecture school in Canada for Indigenous design;
• Become the leading architecture school in Canada in new wood technologies in the boreal forest region;
• Enrich Francophone culture by remaining the only School of Architecture outside of Québec to offer Design Studios, electives and Co-operative placements in French.

The perceived successes and challenges of each of these goals are outlined from an administrative perspective, followed by student, faculty and alumni perceptions of our progress.

GOAL #1 - Recognition as a Hub for Teaching, Research and Community Engagement

From MSoA Strategic Plan (2018-22) - "Create an internationally recognized architectural "Hub" as an umbrella for teaching, research and community engagement"

Successes:

- CACB Candidacy - The first stage of the School being recognized as an architectural "Hub" involved the legitimization of the Program by the CACB. The positive *Visiting Team Report (VTR)* in 2018 reaffirmed the direction of the School and allowed us to be recognized as a Candidate program. This is a major accomplishment for the MSoA.
- There has been continual growth of the Program (both students and faculty)
- Faculty research has been recognized through various international forums (conferences, international publications). Please see Section 4.4 - Current Faculty Resumes.
- Students participating and achieving recognition in international competitions
- International collaborations between MSoA faculty and other universities and communities (Germany, Norway, USA, India, Australia, South Africa, Senegal)
- Strong MSoA presence at the 2018 International Venice Biennale "Unceded"
- Hosted an International Wood Educators Conference in 2019
- Our Facebook page 'likes' come from 45 different countries.

Remaining Challenges (to be achieved by July 1, 2022):

- CACB Initial Accreditation - The final stage of Initial Accreditation is an essential stage of development for the combined professional Program.
- Ensuring we have adequate staff resources to support the School's aspirations. Hiring a full-time Community Engagement and Communications Coordinator and a full-time Digital Fabrication Technologist are priorities for the School currently. Administrative support dedicated to the graduate program, including a second Co-op Coordinator must also be seriously considered moving forward.
- Increase in number of out-of-province and international applications into our Program (challenging due to the specificity on winter cities, wood, and cold design climates)
- Increase our global visibility through a stronger publishing strategy, including a new website and social media presence to launch in 2020-21

Discussion

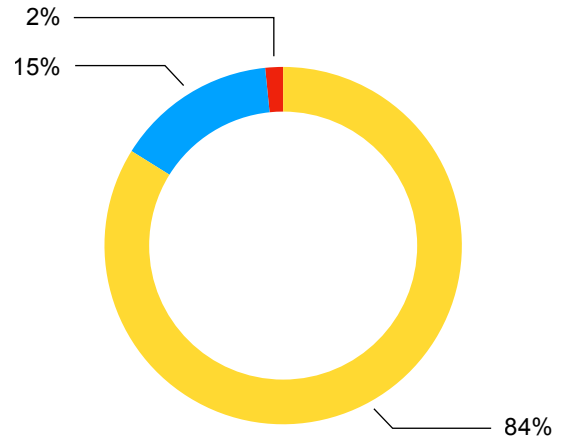
Of the *MSoA Strategic Plan 2018-2022* goals, the first is the most challenging one to quantify, however, there are a number of initiatives that offer us some confidence about the direction of the Program in this area. Achieving CACB Initial Accreditation is a critical step for our Program in terms of international recognition as this will provide confidence from prospective students, as well as Co-op employers and other stakeholders.

Given that we do not exist in a major metropolitan area, the MSoA will need to build its reputation by staying focused on our unique attributes and ensuring that this is communicated to the international architectural community. Given that the MSoA has been continually building its Program, our successes have been significant. In order to continue our momentum, however, we must be mindful of ensuring we have the proper human resources and space to continue to build our 'brand' and market our reputation (i.e. ensuring faculty have adequate time for research and to pursue other special initiatives).

GOAL #2 - Design-Build - Most Relevant Survey Results (by Current students, Alumni and Faculty)

Current Students

How have the design-build experiences you've had informed your understanding of design?



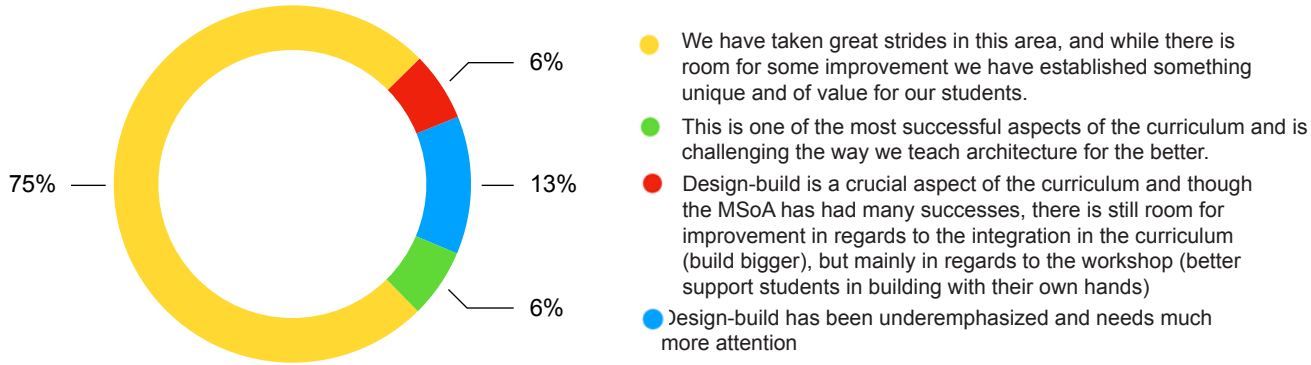
MSoA Alumni

Question 1 asked our alumni "What are some of the specific skills that you learned in the MSoA that you have taken into practice? Check all that apply."

91% of respondents checked the following option: "A comprehensive understanding of design and making informed through an emphasis on design-build and learning through making"

MSoA Faculty

Which of the following best describes your impression of the School's success in establishing a design-build pedagogical emphasis?



3.1 Program Self-Assessment

GOAL #2 - Design-Build Culture

> *From MSoA Strategic Plan (2018-22) - "Establish leadership in Design-Build culture, hands-on active learning, and collaborative research-creation"*
>
> *From Mission Statement - "We place pedagogical emphasis on...design-build and craft, technology and fabrication…"*

Design-build and learning through making remain core to the pedagogical aims of the MSoA. While this presents logistical challenges, we have successfully created a culture of making within our School as a foundation of our Program. Below are a number of perceived successes and challenges, followed by the relevant survey results for this APR.

Successes:

- Prof. Mark Baechler's graduate studio constructed the structure for a wood drying shelter in 2018, the first studio to scale up our buildings since the earlier ice fishing huts and saunas
- Purchased a new portable sawmill
- Purchased a new kiln for ceramic explorations
- Purchased a linear track for robotic construction
- Hired Prof. Bruce Wrightsman who has significant Design-Build experience
- We have maintained small-scale Design-Build projects in 1st and 2nd year Design Studios in the BAS Program (Ice Stations and canoes or wigwam)
- Installation scale projects have been completed in 3rd and 4th year Design Studios in the BAS Program

Remaining Challenges (to be achieved by July 1, 2022):

- Increased interdisciplinary collaborations to support research grants
- Adjust our outdoor assembly and storage spaces in the Fabrication Lab to accommodate new portable sawmill and enhance our overall design-build capacity
- Installation of the linear track for increased capacity for robotic fabrication
- Construct a pedestrian bridge (already designed in the fall 2019 Graduate Studio under Randall Kober) with Sagamok First Nation and Parks Ontario as a case study in remote Design-Build, community-led project implementation
- Hire a full-time Digital Fabrication Technologist to support faculty initiatives in emerging technologies and to build upon digital craft
- Maintain Design-Build initiatives throughout the Program and seek opportunities to increase full-scale projects

Discussion

The assessment of our Design-Build focus at the School was overall very positive, however, there are some slight discrepancies between the groups. Our current students answered enthusiastically about this aspect of our Program, with 84% of respondents answering that "I feel design-build has provided an essential contribution to my understanding of 'making' and a crucial part of my education," and another 14.5% answered that "I feel design-build is another form of knowledge that I have learned that will assist me in the profession." In support of this, 91% of alumni also felt that the Design-Build and hands-on making emphasis of their education has benefited their fledgling careers.

Of the MSoA faculty, only one respondent felt that "This is one of the most successful aspects of the curriculum and is challenging the way we teach architecture for the better." However, 75% of respondents felt that "We have taken great strides in this area, and while there is room for some improvement we have established something unique and of value for our students." Three of the 16 respondents felt the Design-Build program has been either under-emphasized or is in need of improvement.

Based on this feedback, it is clear that Design-Build continues to make a valuable contribution to the student experience and that the majority of faculty see it as a unique aspect of the School's pedagogy. It must also be noted that for 19% of our faculty, there is more attention needed to our Design-Build culture at the school. This can likely be attributed to some of the logistical obstacles that we have encountered in having a relatively high volume of students using our shop facilities for assembling structures, as well as an incapacity to increase the scale of Design-Build projects, particularly in the BAS Program. In order for the School to meet our overall aspirations of continuous design-build experience throughout the BAS Program, we will likely require improved infrastructure and perhaps more dedicated studio projects in the curriculum. The School is currently pursuing an intern through a FedNor program to work with faculty on investigating the feasibility of a new or expanded space to allow the School to engage in larger Design-Build projects, which could address some of these concerns, though a curricular review should also be done.

GOAL #3: Community Design - Most Relevant Survey Results (by Current students, Alumni and Faculty)

Current Students

Although there was not a question directly asking about community engagement on our Current Student survey, Question 7 openly asked students, “Based on your current understanding, in what ways do you feel that our curriculum is best preparing you for entering into the profession of architecture?” One student answered, “Cultural approaches to community design”. Similarly, when asked what are some of the things they have learned to prepare them for their professional roles as problem solvers, the following answers were provided:

- I am learning that architects are problem solvers. Often using a kit of parts or social engagement to find what would be the best solution within the community.
- The problem goes way more beyond just designing a daycare on a hill, the problem solving is looking into the community (physically and socially) and seeing how this design can benefit them and make everything more efficient for them.
- We look to provide innovative designs for climates that are undesirable as well as design for the community.
- Confronting the issue of building within a community that the architect is not familiar with through community led processes. Working with the people that will use the building rather than just the developers.
- It starts with problem solving between team members to analyzing/designing/ adapting existing buildings in our community
- Our community-based design-build projects have helped us to establish working relationships with stakeholders in the community, work as a team, and stick to a timeline and budget. In addition to these real-world built projects, we've completed a host of designs for larger and more complicated programs throughout our community, all of which have been designed for a specific context, site, and purpose, requiring us to address the realities of the site conditions, and design for real people, whether or not it is built.
- Community dialogue
- My design-build studio course offered my studio group and I an endless list of real life architecture/designer problems that we had to tackle in order to push forward in designing a successful bridge for an Indigenous community in Northern Ontario. We had to work with Ontario Parks representatives and Indigenous community members to try to create a bridge that would best impact everyone who would interact with it in any way.

MSoA Alumni

Question 1 asked our alumni “What are some of the specific skills that you learned in the MSoA that you have taken into practice? Check all that apply.” There were only two options that were picked unanimously by all 33 respondents, including the following:
“A developed understanding of the social responsibility for architects to serve all community members.”

MSoA Faculty

Faculty members mostly felt that “we have established something unique and of value for our students and our community partners.” (62.5%) There were 3 members who felt this was one of the most unique and essential aspects of the Program, which matched the number of faculty who felt the opposite, that community-based design is overstated and needs much more attention.

3.1 Program Self-Assessment

GOAL #3 - Community-Based Design

From MSoA Strategic Plan (2018-22) - "Strengthen our capacity for 'Community responsiveness' in northern and remote environments through community partnerships"

From MSoA Mission Statement - "The mission of the McEwen School of Architecture (MSoA) is, first and foremost, to educate succeeding generations of architects to engage in the design of sustainable buildings and communities within the geographic and cultural context of the North."

Successes:

- Dr. Émilie Pinard was named a UNESCO Chair for her community-based research and teaching
- Initiation of the "Sudbury2050 Urban Design Ideas Competition" with $63K in prizes
- New collaborations with Copper Cliff community (3rd year Design-Build play structures)
- New collaborations with Flour Mill neighborhood (3rd year Well-Tempered Environment course)
- New collaboration with TD Bank and the City of Greater Sudbury to establish a Winter Festival event, kicked off with the opening of our student-built 'Ice Stations' at Lake Ramsey
- Report prepared by Jake Chakasim outlining potential path towards community partnership with Northern College, Moosonee campus
- Regenerative design workshop with Jason McLennan (founder of the Living Building Challenge) attended by students, faculty, City employees and community

Remaining Challenges (to be achieved by July 1, 2022):

- Hire a full-time Community Outreach and Communications position to assist faculty in community-based work (1 year out of McEwen gift fund but as an operating budget item thereafter)
- Proceed with small initiatives to establish partnership with Northern College (Timmins and Moosonee campuses) for community projects, with a focus on Indigenous community outreach
- Continue to nurture existing community relationships throughout all years of the Program, especially as community topics for Design Studios, and consider new ones through discussions with potential community partners for Design Studios (as done in the past)
- Follow up Regenerative Design workshop with "Main Streets" symposiums in outer communities of the City of Greater Sudbury (with City Councillors)
- Mobilize ideas from the Sudbury2050.ca competition to prepare valuable takeaways to be shared with the City Council and other civic leaders

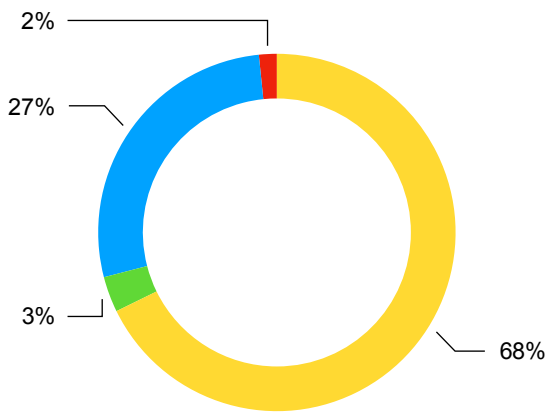
Discussion

Taken together, the following conclusions seem evident. There is a well-understood emphasis on community engagement throughout the MSoA program - confirmed by all three groups. In this way, our level of community engagement is unique to architectural education, as every year of the undergraduate program has some form of community engagement for their major Design projects (i.e. while many design projects are hypothetical in nature, there is a 'real' stakeholder involved who is very much part of the overall studio experience). The critique by the faculty members who feel it needs much more attention seemingly questions the level of community engagement and to what degree it impacts the student design process. Given that each cohort has approximately 65-70 students, quality time spent with the stakeholder group is a logistical challenge. It is also ambitious to consider community-led design processes while also needing to teach students the basic skills of such processes as well as fundamental design skills. Nonetheless, the surveys confirm that this remains a strong focus of the School, with clarification needed on what we can do to improve this mandate, especially as it is an expectation of the community at large.

GOAL #4 - Indigenous Design - Most Relevant Survey Results (by Current students, Alumni and Faculty)

Current Students

How would you say that the curriculum (combined BAS and MArch) at the MSoA informs your knowledge regarding Indigenous architecture and Indigenous cultures?



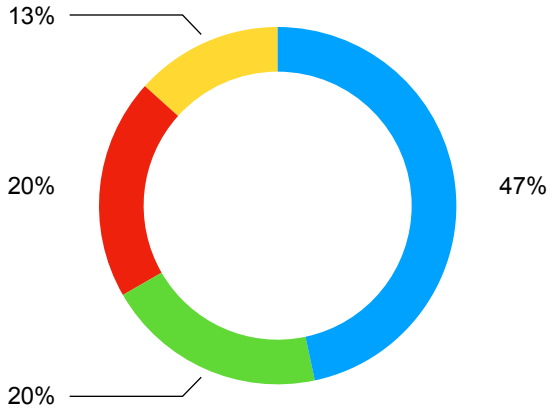
- I feel that the curriculum provides me with an essential knowledge regarding Indigenous architecture and Indigenous cultures through MSoA courses, field trips, interaction with the Elders and Knowledge Carriers and exhibits by members of the Indigenous community hosted at the MSoA (e.g. Walking With Our Sisters).
- I feel the curriculum has somewhat informed my knowledge regarding Indigenous architecture and Indigenous cultures, mostly through interaction with the MSoA's Elders and Knowledge Carriers as well as the MSoA's Indigenous-focused courses (e.g. Indigenous Precedents).
- I feel that the curriculum has not especially informed my knowledge regarding Indigenous architecture and Indigeous cultures, and that any knowledge I have acquired has been through outside sources only.
- I am a transfer student who completed his BAS at a different university so I can only speak to my last 3 semesters of the MArch Program but even within the 1 semester spent at the school I feel I learned significantly more than I'd already known about indigenous cultures and architecture - from my fellow students sharing their gained knowledge and from random conversations with Elders.

MSoA Alumni

94% of our Alumni included the following as something that they have taken into practice with them from their education: “An informed perspective that respects multiple cultures including Indigenous perspectives.”

MSoA Faculty

Which of the following best describes your impression of the School’s success in integrating Indigenous knowledge and learning opportunities?



- We have taken great strides in this area, and while there is room for some improvement we have established something unique and of value for our students.
- This is one of the most critical and experimental aspects of the curriculum and one we are providing leadership in
- In order for the Indigenous aspects of the Program to reach their full potential this needs much more attention.
- I am not satisfied with this aspect of the Program and see many areas for it to improve

3.1 Program Self-Assessment

GOAL #4 - Indigenous Design

From MSoA Strategic Plan (2018-22) - "Become the leading architecture school in Canada for Indigenous design"

From MSoA Mission Statement - "We place pedagogical emphasis on...Indigenous perspectives...the Program was developed in response to Laurentian University's tricultural mandate (Indigenous, Francophone and Anglophone)"

Successes:

- We have maintained the number of self-identified Indigenous students enrolled in our Program
- We invited respected Indigenous architect Douglas Cardinal to give the inaugural lecture on opening day at the School of Architecture in September 2013; he was subsequently honoured with LU conferring an Honourary Doctorate to Mr. Cardinal on June 5, 2015
- We are the only School in the world (that we know of) that has maintained a role for Elders and Knowledge Carriers throughout the culture of the Program
- Dr. David Fortin held a public one-day symposium at the MSoA on his SSHRC research entitled "Metis Architecture and Design Symposium" on March 15, 2018, that brought Métis artists and scholars from across Canada
- Our Community-Design Graduate Studio hosted the "Walking with our Sisters" Memorial exhibit of moccasins in Fall 2017; this was open to the entire School and the Sudbury community and was a powerful ceremony to have honoured at the MSoA
- Current and former MSoA faculty members played a key role in preparing the application for "UNCEDED: Voices of the Land", Canada's official entry to the Venice Biennale (Prof. David Fortin - co-curator, Eladia Smoke, Jake Chakasim, and Patrick Stewart).
- Prof. David Fortin and Master Lecturer Eladia Smoke currently act as mentors for the federal "Indigenous Homes Innovation Initiative"
- New collaborations with LU Indigenous Sharing and Learning Centre and Indigenous faculty member Joey-Lynne Wabie (2nd year Design Studio and ARCH 3006 - Indigenous Precedents) to build a wigwam on main campus, led by Elder Art Petahtegoose
- We initiated the "Building the Thesis Colloquium" in 2019, which includes one outstanding Canadian thesis project on an Indigenous topic to be presented at the MSoA
- Our Indigenous Design Graduate Studio (ARCH 5525) has twice produced inspiring work with Indigenous communities, including the first "all-Indigenous" Design Studio review (meaning all reviewers were Indigenous) in 2018 with Batchewana FN
- In 2019, the Graduate Studio in Architecture & Craft studio (ARCH 5505) completed the design of a pedestrian bridge for Sagamok First Nation and Parks Ontario
- We've so far graduated six self-identified Indigenous students with their Master of Architecture (MArch) professional degree (2019 & 2020)
- We have tri-cultural representation on the McEwen International Advisory Board including architect Alfred Waugh (Vancouver), Métis Elder Juliette Denis (Sudbury) and David Fortin (MSoA)

Remaining Challenges (to be achieved by July 1, 2022):

- Hire and retain Indigenous faculty members from a limited roster in Canada
- Establish a Visiting Indigenous Scholar position that can be used to attract Indigenous practitioners or academics in future years to add diversity and strengthen this aspect of the Program
- Seek new ways to collaborate with Indigenous faculty members from LU campus
- Explore how to better connect with and recruit students from northern and regional Indigenous communities
- Consider hosting a symposium or conference on the topic of Indigeneity in schools of architecture
- Review curriculum for Indigenous knowledge and content, including guest teachers, throughout the Program and update accordingly, with input from Elders and Indigenous community on LU campus

Discussion

It is clear from our surveys that MSoA students understand Indigenous teachings as a unique contribution to their architectural education with 68% of students choosing the following answer when asked about the Indigenous content in their courses: "I feel that the curriculum provides me with an essential knowledge regarding Indigenous architecture and Indigenous cultures through MSoA courses, field trips, interaction with the Elders and Knowledge Carriers and exhibits by members of the Indigenous community hosted at the MSoA (e.g. Walking With Our Sisters)." Another 27% responded that: "I feel the curriculum has somewhat informed my knowledge regarding Indigenous architecture and Indigenous cultures, mostly through interaction with the MSoA's Elders and Knowledge Carriers as well as the MSoA's Indigenous-focused courses (e.g. Indigenous Precedents)." Together this means that 94% of our current students recognize the value of Indigenous knowledge and teachings in their education.

Given that our aspiration has always been to have Indigenous teachings embedded throughout our curriculum and School culture, this is already a significant success. It was a foundational aspect of the curriculum, evidenced by the community consultation sessions

done in the design of the building and the curriculum (and published as a document - “First Nations, Métis, and Inuit Dialogue: Summary Report” - in 2012). That students understand and value this contribution to their education confirms this has developed into a strength of the Program.

Similarly 67% of faculty respondents felt this is one of the most “critical and experimental” aspects of the curriculum, or acknowledged that “we have established a program with unique learning opportunities” through this mandate. 20% of respondents felt that this aspect needs much more attention and 2 respondents were unsatisfied with this aspect of the Program, seeing many areas for improvement. Similarly, one student wrote “I feel that there has been minimal outreach to indigenous professors, elders, or knowledge carriers as there was one day throughout the year that I got to be somewhat immersed into the culture and their perspectives,” while another wrote “As an Indigenous student attending MSoA, I feel as though the Indigenous Elders should be better utilized through quotidienne [daily] learning and should be present more frequently within our building.”

The concerns over this aspect of the curriculum from faculty and a few students, suggest that the MSoA must continue to rigorously continue its development. The curriculum was designed long before the *Truth and Reconciliation Commission (TRC)* final report in 2015, which has since motivated many institutions to begin to address Indigenous issues in their programs. Thus, while the school now has 8 years of experience on how to embed Indigeneity into an architectural curriculum, the role of Elders in the school is still evolving organically, to allow them and our Knowledge Carriers to advise us on the best path forward. We have also had 2 of our 4 full-time Indigenous faculty members leave the School over the years for personal reasons, indicating that retention of qualified Indigenous architects is not an easy matter.

A continual challenge for the Program is to more fully understand the colonial foundations of architectural design thinking and how to break from them collectively. This is ultimately a generational challenge that will take decades to reach its full potential. In the meantime, in order for the MSoA to maintain providing national leadership in this area, it requires critically assessing our integration of Indigenous knowledge into the curriculum, comprehensively, in respectful and productive ways, as well as continuing to nurture strong relationships with our regional Indigenous communities as a priority.

Indigenous Design Studio Final Reviews, 2017 (left to right: Patrick Stewart, Eladia Smoke, Chris Cornelius, Jake Chakasim, Will Morin, Adele Mahigan and Teala Nadjiwan). Professor David Fortin

GOAL #5 - Wood Design - Most Relevant Survey Results (by Current students, Alumni and Faculty)

Current Students

While there was not an easy way to canvas students about our aspirations in wood design through a single question, there is evidence that students value this aspect of the curriculum. When asked "in what ways do you feel that our curriculum is best preparing you for entering into the profession of architecture?", the following answers were provided:

- "...we enjoyed field trips to saw mills to learn more about what woods are best solutions for different purposes, how to source materials and discuss them with manufacturers…"
- "By teaching me real world skills like woodworking and model making but also teaching in office skills and further developing them like digital modeling and presenting."
- "Understanding upcoming material culture (wood)."
- "The growing trend of construction materials is focusing more on wood, as well as cross-laminated timber. I believe the McEwen School of Architecture has done an excellent job teaching the students about wood as a building material and designing conscientiously for the environment."

MSoA Alumni

Similarly, there were no questions directly asking alumni about the role of wood as a pedagogical focus. However, broad support for the Design-Build aspects of the curriculum suggests that this is also recognized and generally embraced by our graduates as wood is central to our Design-Build curriculum.

MSoA Faculty

Of the faculty respondents, 75.1% felt that the Program's emphasis on wood design is either "one of the most successful aspects of the curriculum" (18.8%) or, for the majority, "we have established something unique and of value for our students" (56.3%). 2 respondents felt wood design is overstated and needs much more attention and there were suggestions by others to consider better integration of wood with other structural systems.

GOAL #5 - Wood Design

From MSoA Strategic Plan (2018-22) - "Become the leading architecture school in Canada in new wood technologies in the boreal forest region"

From MSoA Mission Statement - We place pedagogical emphasis on...wood construction

Successes:

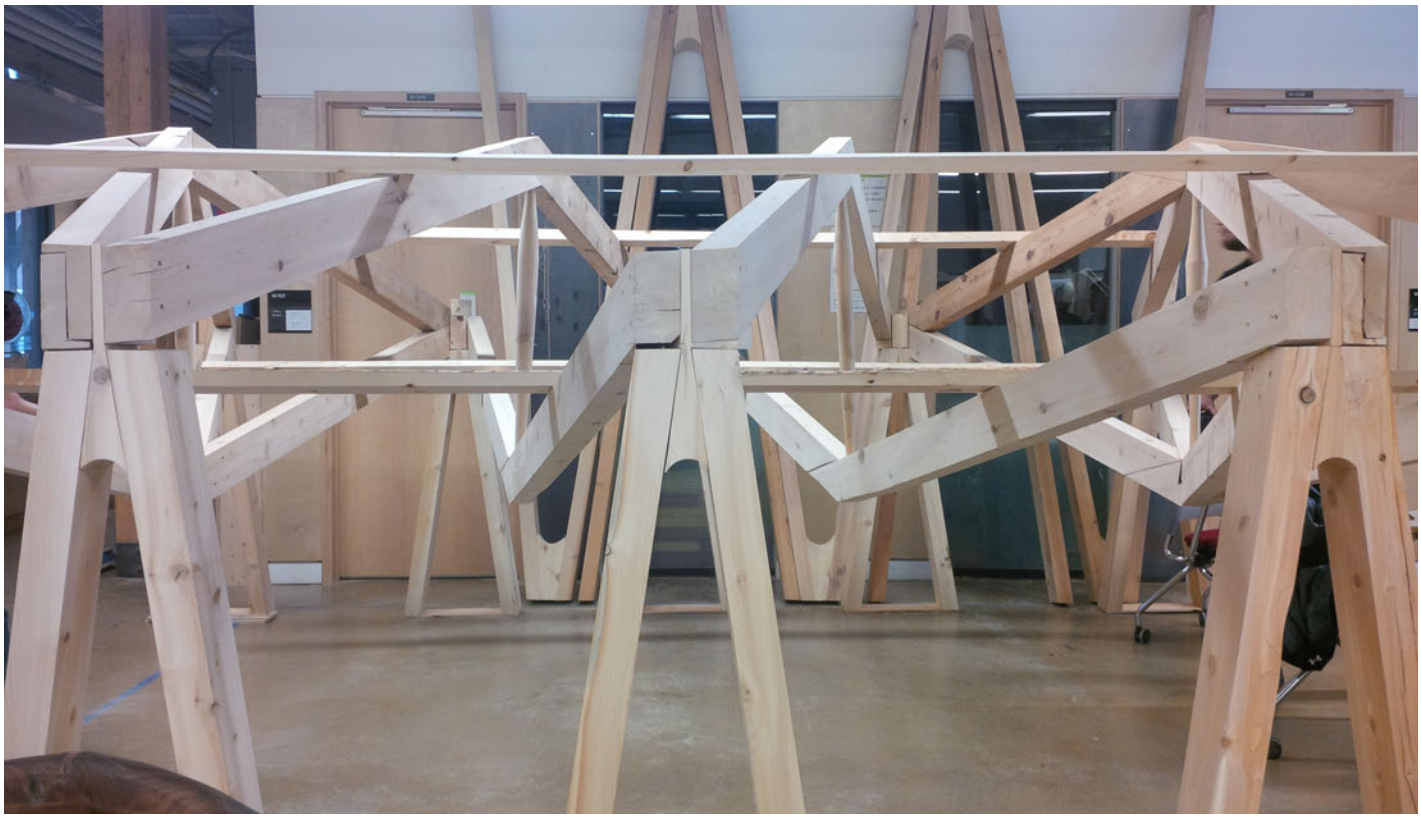
- We have had initial conversations with various stakeholders about the possibility of establishing a Northern Ontario Wood Innovation Centre, or Wood Lab (FedNor, LU VP Research, local MPs)
- Our first structures course is called Structures 1: Wood (ARCH 2316), and wood is promoted as a material across the Program in a variety of ways and methods
- We negotiated with the University to establish a 37-hectare Outdoor Research and Teaching Site at Bennett Lake that has the capacity to provide a unique opportunity for our Program to sustainably harvest material from this site and build with it
- On multiple occasions, MSoA students have participated at the Bergen International Wood Festival under the supervision of Dr. Tammy Gaber, winning in 2016.
- We are Partners of the Mass Timber Institute, along with Rob Wright (U of T), David Moses, etc.
- Master Lecturer Randall Kober serves as Architecture Academia Advisor to the Board of the Canadian Wood Council (CWC) and on the editorial board of its Wood Design and Building magazine
- A graduate studio directed by Professor Mark Baechler constructed the frame for a wood drying structure on MSoA property in 2018.
- In September 2019, the MSoA hosted the inaugural "International Wood Educators Conference." The conference assessed the varying approaches to wood construction education in Canada and Europe. Presenters came from across Canada, England, Austria, Switzerland, and Norway.

Remaining Challenges (to be achieved by July 1, 2022):

- Establish a FedNor Intern position to help mobilize the concept for the MSoA Wood Lab
- Better understanding of the infrastructural challenges of Wood Lab and what would be required for the initiative to flourish, including collaborations with the Bharti School of Engineering at LU
- Begin harvesting wood from the Outdoor Research and Teaching Site at Bennett Lake and milling it on site for use in projects

Discussion

Our current accomplishments in wood design can mostly be evidenced in the Program initiatives outlined in the "successes" section above and in the broad support for our Design-Build curriculum. For the majority of the MSoA community, wood design is understood as a core aspect of our curriculum and should be maintained moving forward. Like some of the other goals listed above we are recognizing that there are logistical challenges to better implement a larger scale of wood design expertise at the School, as well as continual monitoring of curriculum to ensure this focus area is being maintained. Preliminary conversations have begun about post professional degree options with expertise in this area, however, building the capacity for something like this must be addressed as a long term goal.



Architecture and Craft Design Studio, 2018 (Professor Mark Baechler).

GOAL #6 - Francophone Culture - Most Relevant Survey Results (by Current students, Alumni and Faculty)

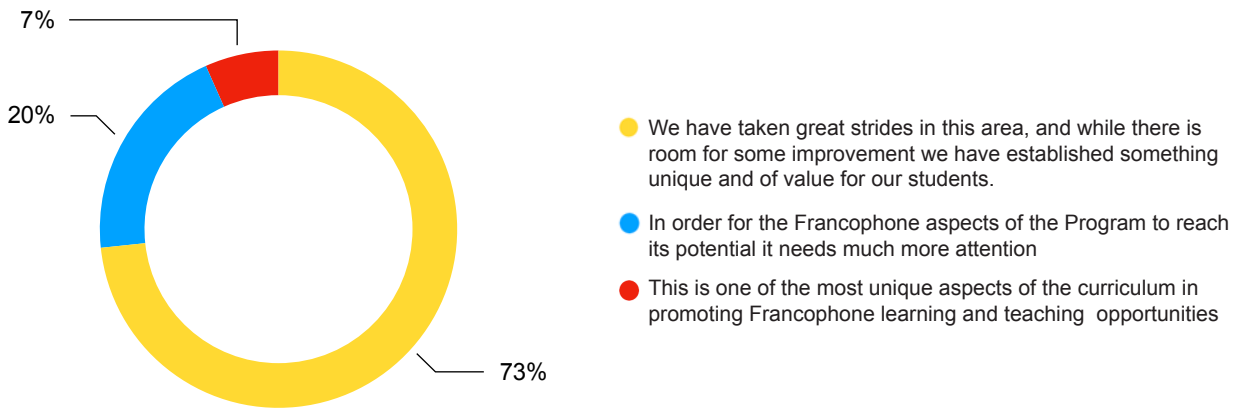
Current Students

We asked the following question to our current Francophone students: “As a Francophone student, what has been your overall experience of the tricultural mandate of the MSoA? What improvements can the curriculum make to be more inclusive?”

With some variation, students described their experience as a Francophone student with the following: “very good”, “thoroughly enjoyed”, “love my experience”, “loved the French studios”, and “very important”. No respondent replied that they have had a negative overall experience.

Suggestions for improvement included increasing the number of French public lecturers, and questioning how to incorporate French content and options in other courses.

MSoA Faculty



GOAL #6 - Francophone Culture at the MSoA

From MSoA Strategic Plan (2018-22) - "Enrich Francophone culture by remaining the only School of Architecture outside of Québec to offer Design Studios, electives and Co-operative placements in French."

From MSoA Mission Statement - "...the Program was developed in response to Laurentian University's tricultural mandate (Indigenous, Francophone and Anglophone), but further emphasizes multiculturalism and diversity as central to our Program's community."

Successes:

- We have maintained the number of French-speaking Design Studios in the Program
- We hired 2 new faculty members in 2018 (Aliki Economides and Shannon Bassett) who have the capacity to fluently participate in French Design Studio reviews and courses
- We invited a Francophone scholar (Jean-Bruno Morisette) to teach at the MSoA for one semester, sharing his current research with our community
- Our annual MSoA Lecture Series has lectures delivered in French each year
- Our library has organized a number of French events and we have a minimum of 1 French-delivered talk as part of our public lecture series.
- In 2019-20 we had a total of 8 full-time faculty (out of 17) and 5 Sessional studio instructors who can fully participate in French conversations and reviews
- We initiated the "Building the Thesis Colloquium" in 2019, which included one outstanding thesis project from Laval University, written and presented in French
- We initiated a new $500 scholarship for any student who takes half or more of their Design Studios in French during their BAS degree, as an incentive to increase student numbers in our French language Design Studios

Remaining Challenges (to be achieved by July 1, 2022):

- Establish a Visiting Francophone Scholar position that can be used to attract Francophone practitioners or academics in future years to add diversity and strengthen this aspect of the Program
- Increase the numbers of students who choose to take Design Studios in French
- Increase the number of French speaking Co-op placements with French offices in Canada and abroad

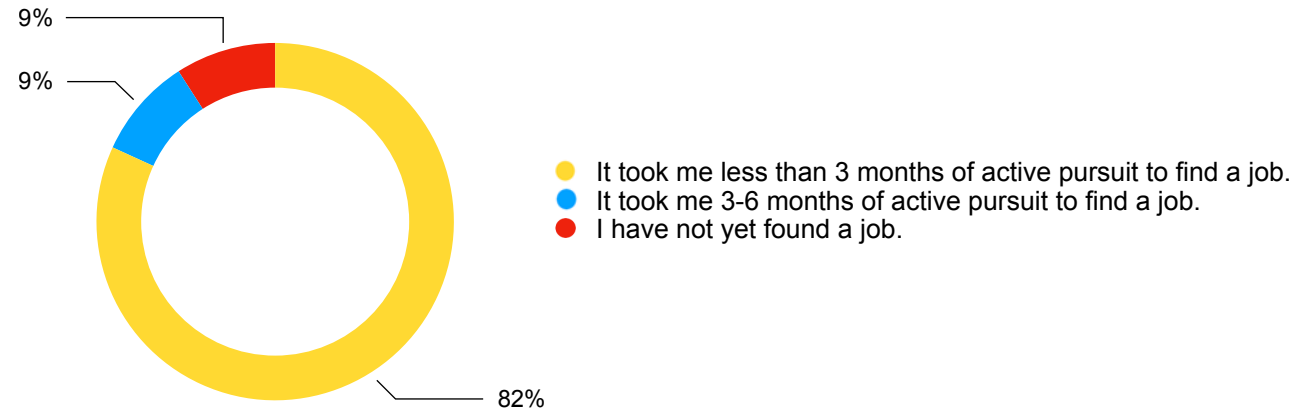
Discussion

Like many of the other focus areas of the Program, our Francophone studio curriculum and culture has been widely embraced by our students and faculty alike. We are the first program in Canada to integrate both English and French studios, and create a focus on celebrating French culture throughout our student experience. French has been woven into our public lecture and library programming and can be heard spoken in all corners of the School. Some challenges include recruiting French-speaking Sessionals and local practitioners to participate in studio reviews, and the perceived lack of studio options for French-speaking students who move through the entire curriculum as a single cohort. Ensuring these students feel integrated with their English-speaking classmates and that they have an equitable sense of developmental opportunities, will remain something the School has to monitor. Lastly, we have had some challenges in filling the Francophone Design Studios, meaning other studio sections have higher numbers of students, but this is to be expected as we develop this new model.

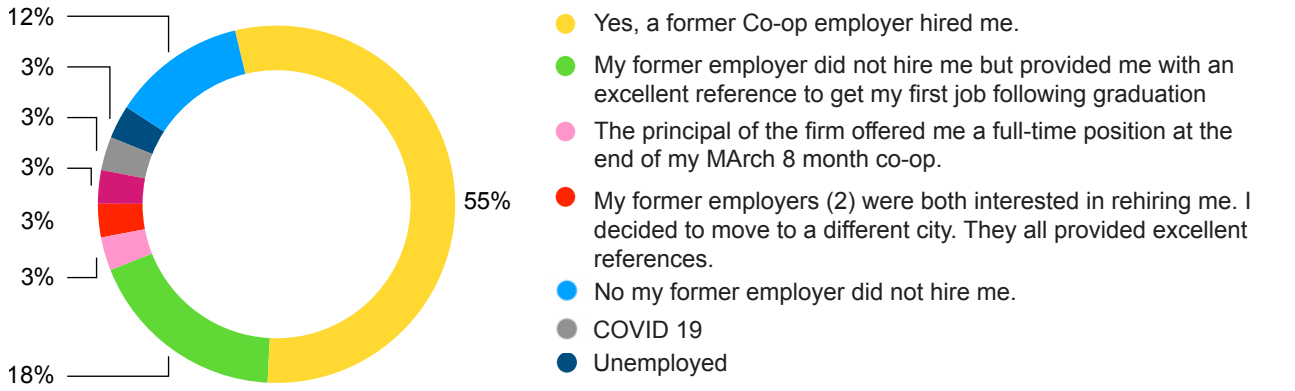
3.1.3 Faculty, Student, Alumni, and Employer Assessments of Co-operative Education Program

MSoA Alumni

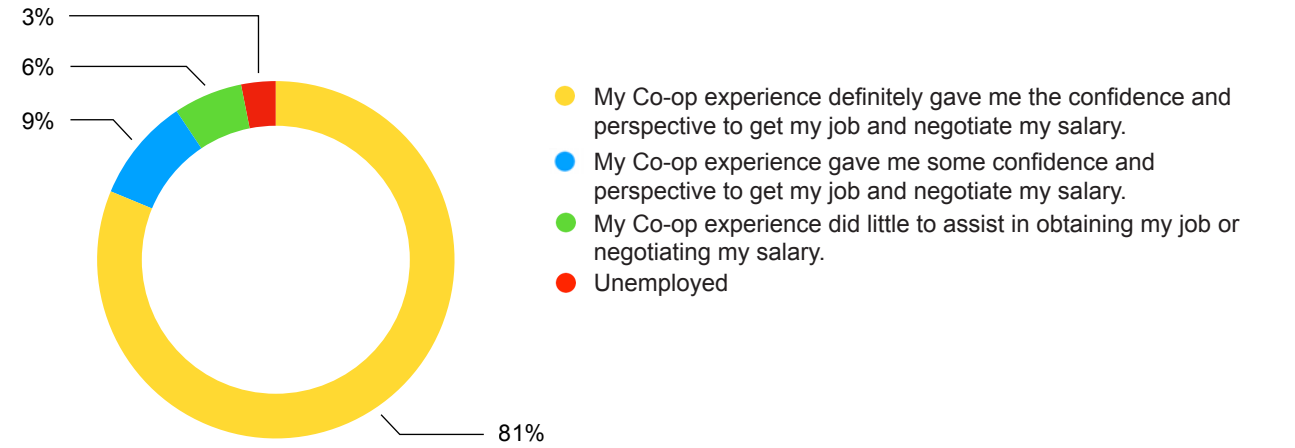
Are you currently employed? If so, how long following your graduation was it before you started working?



Have you been rehired by a firm where you had any former Co-op placement?

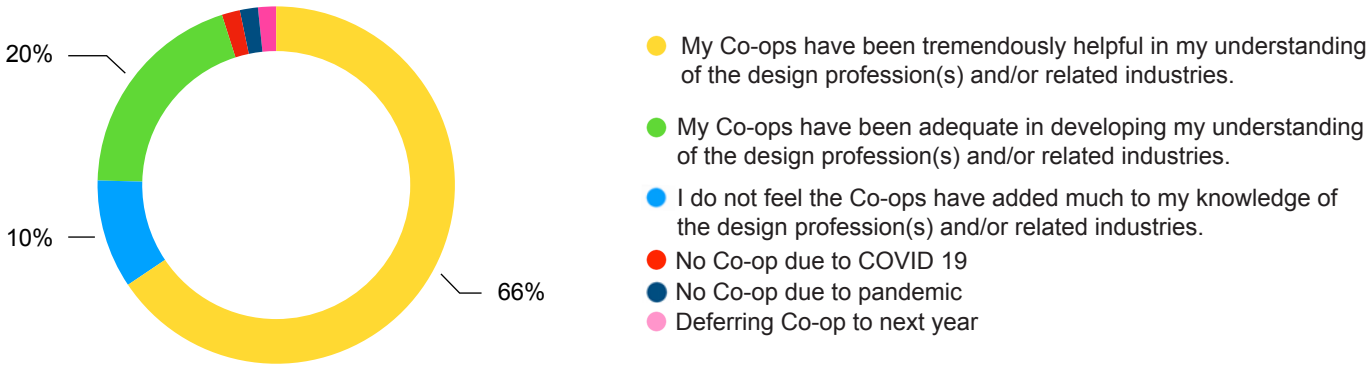


Do you feel that previous Co-op experience helped you to obtain your job and also a higher salary than if you had not worked in an office until after graduation?



Current Students

How have your Co-op placements added to your knowledge of practice (or trades)?



MSoA Faculty

Which of the following best describes your impression of the School's success in establishing a pedagogical emphasis on preparing students for professional practice through our Co-op Program?

Discussion

The MSoA Co-op Program continues to develop. Students overall understand the value of the opportunities afforded to them through their Co-op placements with 85.3% of students either finding their Co-op placements to be "tremendously helpful" (65.6%) or "adequate" (19.7%) in developing their understanding of the design professions, or other related industries. Similarly, it is clear from our alumni survey that the Co-op Program has provided them with a solid foundation on which to embark on their careers. Only 10% of our alumni did not have a job when the survey was administered, including recent graduates who had been seeking employment during COVID-19 hiring restrictions for many firms. Over half of the alumni respondents (54.5%) reported that their Co-op employers had rehired them following graduation which is significant in verifying the education our students are receiving in terms of bringing value to a practice. Another 18.2% acknowledged that their Co-op employers offered them strong recommendations that likely led to their current positions, meaning that 72.7% of students feel their current employment was directly impacted by a positive Co-op experience. Over 90% of alumni felt their Co-op experience gave them the confidence and perspective to obtain a job and negotiate a salary. Our survey also confirmed that the majority of our alumni working for firms are being compensated at or above industry standards. Finally, it should be emphasized that considering the relatively recent history of our Co-op Program, our students have been hired for Co-op terms by reputable firms in Canada including KPMB, Perkins + Will, RAW, Mcfarlane Biggar, Brook McIlroy, Michael Green Architecture, and internationally in firms such as

Sauerbruch Hutton in Germany and Steven Holl in the USA. It is also worth noting that Indigenous firms such as Formline Architecture and Patrick Stewart Architect - both in BC - have also repeatedly hired our students.

It is clear that a number of MSoA faculty have concerns about the Co-op Program currently. While a majority of our faculty (60%) saw the Co-op Program as "one of the most important aspects of the curriculum" (13.3%) or as "a unique...program that adds value for our students and our community/professional partners" (46.7%), 6 of the 15 respondents conversely felt that the Co-op Program is currently either "unsatisfactory" (1 respondent) or needing "much more attention" (5 respondents). This sentiment comes in large part from the perceived shortage in full-time staff dedicated to this important aspect of our overall Program. We have also had turnover in this position, and as the staff member has left on two occasions, we have had gaps in communication between students and employers with the School. This confirms the original business plan of having at least two staff members in this role.

The Co-op Program has many layers to it that can help in understanding some of these concerns:

- there are three separate Co-ops in the Program (after 1st and 3rd year of the BAS and for 8 months of the 1st year of the MArch)
- the first Co-op involves working for various trades and other hands-on industries
- the second Co-op involves working for architectural and other design-related industries
- the 3rd and 4th consecutive Co-ops involve working in architectural firms only, under the supervision of a registered architect
- these courses are required for each of the BAS and MArch degrees, in conjunction with faculty who deliver each course

It is also worth noting that every summer there are approximately 150-200 students being placed through the Co-op Program, which is very high by comparison to other Schools of Architecture. This involves significant administrative responsibilities and reduces the capacity of our Co-op coordinator to also promote the Program, perform site visits, etc. For this reason there has been continual discussion about the need for a second Co-op Coordinator with a focus on the MArch Program (see Section 3.5.2 - Support Staff).

Co-op Employers

The Co-op employer survey generally offered strong support for our Program. 89.8% of respondents described their overall experience with our students as "Exceptional" (38.5%) or "Very Good" (51.3%). No respondents replied that they had an unsatisfactory experience. All respondents replied that they would "most definitely" (74.4%) or "possibly" (25.6%) consider hiring the same student back or another MSoA student if the opportunity presents itself. 94.9% of respondents felt it is essential for our students to learn "how to communicate and work with other fields or other consultants in the office setting", with the remainder feeling it is an excellent opportunity but not essential. The largest critique of the Co-op Program resulted from the question "if the employer felt a part of the MSoA community" where only 28.2% responded with "absolutely," 51.3% with "somewhat" and 20.5% with "not really".

When asked what employers felt we could do better the following suggestions were made: year-round options for hiring, specific training related to the tasks they will be doing (including more courses on building code as an example), more architectural office skills training earlier in the BAS Program, longer Co-ops in the BAS Program, better communicating to employers what is expected of them in terms of teaching, increased technical knowledge over conceptual emphasis, contact with employers far in advance so they can prepare better for the position, and ensuring students have proper safety training prior to starting their placement (i.e. WHMIS, 4-step, Working at Heights, etc.)

There were two recommendations offered by numerous employers. The first involves providing better information about the Co-op Program, including expectations, and better overall promotion of it. The other concern raised by multiple respondents was that they felt the School did not communicate enough with the employer or offer enough information, including not calling to check in on COVID-19 safety protocols, for instance.

McEwen School of Architecture. Crit Pit. Photo: Bob Gundu.

3.1 Program Self-Assessment

3.1.4 Faculty, Student and Alumni Assessments of Program's Overall Curriculum and Learning Context

To best summarize the MSoA community self assessment for overall curriculum and learning context, the surveys offered a series of open questions about what was the success of the MSoA and what were areas that could be improved. Certain themes appeared through these answers and are summarized below.

Strengths

The strengths of the Program identified through the survey generally confirm the Strategic Plan focus areas as described above. However, other areas of strength highlighted by faculty include: social justice and equity, team-based learning, opportunities for extensive travel, and “A good balance between theory, design, artistic process and technical details, construction, systems.”

Other areas of strength identified by students, other than those already discussed, include the following: “knowledge of the environment and the land”, cultural diversity in teaching, constructive criticism, climate change, and adaptive reuse. 94% of MSoA alumni felt that their field trip experiences were either “extremely important” or “important” to their overall education.

In terms of overall perceived value of their education, 97% of our alumni felt that their education had either “definitely” (75.8%) or “somewhat” (21.2%) prepared them for professional practice. Meanwhile, 43.5% of our current student respondents answered that “I feel the education I am receiving has exceeded my expectations and is preparing me for a rewarding career”, while another 51.6% were “overall very happy with my education despite a few areas that I feel could be improved”, combining for 95% of supportive feedback about the overall Program.

From these responses, it is clear that the MSoA has created an overall positive learning experience for our students while recognizing there are still many areas where we can improve. This process is ongoing.

Areas to Improve

Still a relatively new Program, the MSoA is constantly challenged to maintain its progress on our unique attributes listed above, while also trying to be agile enough to respond to required shortfalls and necessary changes. While there did not seem to be any drastic concerns raised throughout our self-assessment, there are a number of areas worth noting where we must pay attention moving forward.

Our alumni identified the following areas that they felt could be improved in the MSoA curriculum: Revit/AutoCAD (multiple alumni mentioned this), “contractual and technical side of the profession”, project management, contract administration, BIM workflow, experimental and explorative technology, and specification writing. As with many Schools of Architecture, the Program must constantly assess the role that programs such as Revit play in the education of design. Based on our alumni feedback this is the single most repeated area of concern, along with a more solid grounding in basic professional practice.

For our current students, the following were highlighted areas for possible improvement: Revit/AutoCAD/software (many students noted that the Programs used in firms are not taught in our Program), more building code education and technical emphasis, earlier introduction to professional practice and how the profession operates, more business skills, more emphasis on accessibility, and better support and recognition for all minority students.

Thus, from a student perspective, it is clear from our surveys that many students are interested in including software programs such as Revit into the curriculum. More exposure to professional practice and business are also repeatedly mentioned, as well as, generally, more technical and construction based assignments. While only one student mentioned accessibility as a concern, this is an important one for the Program to monitor in addition to the concern about inclusivity to celebrate all cultural groups in our Program.

For faculty, the following areas were highlighted in terms of needing attention: a refocus on Northern communities and their needs; establishing sustainability as more of a central emphasis in the School; improving our overall culture of mutual respect for each other; improvement in our technology stream (particularly in relation to digital tools and design); expanded professional practice; increased levels of Indigenous integration throughout the Program, more diversity in terms of teaching, learning, and overall culture; more global design awareness, more focus on urbansim; more attention to the Co-op Program to ensure equitable opportunities for all students and that they have portfolio feedback and interview skills; recruitment of Indigenous and Francophone faculty and students; higher expectation in history, theory, criticism, and writing throughout the Program; maintaining a collaborative approach to architecture throughout the curriculum; maintaining our momentum with Design-Build projects throughout the Program; more instruction on drawing and representation; and increased focus on the building code and accessibility throughout the Program.

3.1.5 MSoA Faculty Retreats

June 2017 was the first time since the MSoA opened in 2013 that we had all faculty (including sessionals) around the table for a Faculty Retreat, without the pressure of courses, deadlines, etc. The retreat had an agenda, with themes to discuss in a variety of break-out groups. It was a positive team-building exercise for many, especially the newest faculty. It was also extremely important to revisit the raison d'être for the School, which is community based and focused on educating students to work in the north. Collegial governance, and developing the new "MSoA Constitution" were main subjects. We had very lively and productive sessions on cultural diversity, the original vision for the Program, and in what constructive ways the School may pursue its variety of research interests.

On April 25th and 26th, 2018, we held our second Faculty Retreat where we devoted time to sharing what was done throughout the year with each other, as well as a focussed afternoon discussing the following topics: 1) Indigenous content and curriculum, 2) digital tools and curriculum, 3) Francophone Affairs related to curriculum, and 4) Design-build related to curriculum.

The following year, on April 24th and 25th 2019, the Spring Faculty Retreat reviewed the MSoA 'Mission Statement' and identity documents of the School to date; shared photos from the 2017 Faculty Retreat workshop and then discussed the long term planning for the Program. This led to a sharing of funding ideas for using our McEwen gift funds in support of the overall Mission of the School. There was also a focused conversation about the role of the MSoA Constitution, which started the process of developing this document in earnest, though it took another year to accomplish this. This year, the Faculty Retreat in May 2020, primarily focused on collectively finalizing the terms of our MSoA Constitution and then required a focused conversation about the impact of COVID-19 and beginning to plan for these exceptional teaching circumstances.

We have found the annual MSoA Faculty Retreats as the preferred format for inclusive conversations about any policy changes or large curriculum topics, as our monthly School Council meetings are usually filled with month-to-month topics needing urgent attention. This Self- Assessment will form the infrastructure for the 2021 Spring Faculty Retreat where we will discuss some of the larger critiques from this process and how we can best address them moving forward.

Overall, we feel that we are meeting our major Mission and pedagogical goals, given the experimental nature and complexity of our unique Program. This self-assessment clearly underscores our Program strengths and indicates several key areas that require reflection and action as the Program grows. University support to continue to achieve success is also required at this stage in our Program's development.

3.2 Public Information

Excerpts from Laurentian University Viewbook, 2020-21

Key features
- Take advantage of the field course to get hands-on experience with the practice of archaeology in Ontario.
- Flexible program allows you to create your own career path through an arts-based program or a science-based program.
- Apply your skills in other fields, such as surveying and mapping, historical research, laboratory work, municipal planning, museum curation, and protection of heritage resources.

Unique experience
Laurentian's Archaeology Program field school (ARCL 3095) is a 6-week course, for which students receive 6 credits. The course is traditionally held on a Huron-Wendat site with the permission of the Huron-Wendat Nation. Students spend five weeks in the field learning excavation, survey and mapping, and one week in the lab learning artifact processing. The school is certified by the Register of Professional Archeologists.

Visits to local museums are included in the program, and a number of experts present at guest lectures.

Career outcomes: Archaeological field technician, field director, lab technician, report writer, heritage manager, planner and conservator, museum curator, historical interpreter, anthropological research assistant, postgraduate degrees in archaeology and related disciplines, forensic identification officers, scene of crime officers, and forensic anthropologists.

Language: English
Delivery method: Classroom

Degree options
- Bachelor of Science in Archaeology (4-year)
- Bachelor of Arts in Archaeology (4-year)
- Specialization in Archaeology (B.Sc. or BA)
- Major in Archaeology (B.Sc. or BA)
- Bachelor of Science in Archaeology (3-year)
- Bachelor of Arts in Archaeology (3-year)
- Concentration in Archaeology (B.Sc. or BA)
- Minor in Archaeology
- Minor in Archaeological and Cultural Landscapes

BA* and B.Sc. first-year courses**
ARCL 1006 – Introduction to Archaeology and Physical Anthropology

+ electives (27 cr.)

** By graduation, students must have obtained six credits in linguistic awareness, six credits in Indigenous content and six credits in scientific literacy. See page 61 for complete details.*

*** Students must meet a minimum requirement of 50% science credits for the B.Sc.*

Refer to pages 52 to 59 for admission requirements.

Viewbook 2021 reflects normal operations on campus.

LaurentianUniversity
UniversitéLaurentienne
McEWEN School of Architecture
École d'architecture

ARCHITECTURAL STUDIES, BAS

*Candidate School for CACB Accreditation**

Build your community and earn a hands-on education that also stimulates your imagination.

Begin the process of lifelong learning in a tricultural program that is unique in Canada and build a portfolio of exciting and innovative design-build projects. Experience a unique architecture program, which highlights design and culture for Northern Ontario with an emphasis in developing expertise in wood and sustainable materials. Focus on design, culture, technology and professional practice and enjoy courses on the main Laurentian University campus, and at the McEwen School of Architecture, Laurentian's downtown satellite. Challenge your creativity through the application of practical building solutions for northern climates, taking into account cultural sensitivities, diverse histories and community profiles.

Key features
- Design-Build and Community-Design projects expose students to real community issues and hands-on building experience. Design-Build projects include the design and construction of structures such as ice stations, canoes, saunas, and other northern artifacts.
- At Laurentian, students develop an appreciation for the integration of Indigenous and natural materials in building and site design, as well as cultivate an understanding of the importance of collaboration and interaction with other students, faculty, and community groups.
- Strongly rooted in an innovative 28-week co-op education model, the first work-term in the architecture program takes place in industry and related fields, while the second work-term takes place in an office for architecture or a related design field.
- Benefit from International travel opportunities to countries such as Germany and Norway to study wood construction and design culture in other locations.
- Learn to work with northern communities and help shape your own community upon graduation.

Unique experience
- Extensive practical applications through Design Studio.
- Ongoing Design-Build and Community-Design projects.
- Design Studio, electives and work-term experience offered in French.
- 28-week (two 14-week placements) paid co-op internship experience.
- Inclusion of diverse cultural backgrounds, including Franco-Ontarian, First Nation, Métis, and Inuit course content.
- Access to Elders and/or Knowledge Carriers in Residence.
- Unique tricultural architecture curriculum where you will experience the spectacular Northern Ontario landscape.
- A $30M facility comprised of four buildings forming a courtyard that offers unique teaching opportunities onsite in building performance and sustainability.
- Design-Build projects will include structures such as ice stations and birch bark canoes in first and second year.

Career outcomes: Architect. Primarily geared to graduate studies towards the professional program in Architecture (M.Arch.), employment prospects for BAS graduates are numerous in the field of design including urban planning and community development, ecology, sustainability and industrial design.

Language: English (some courses also offered in French)
Delivery method: Classroom

*** Limited enrolment***

Degree options
- Bachelor of Architectural Studies (4-year)

Supplementary program requirements:
- 1 Portfolio (portfolio webinar and portfolio guidelines at laurentian.ca/architecture must demonstrate creative work, either in digital or hard-copy format).
- One- to two-page statement of interest (students will elaborate on their interest in architecture as well as their choice of Laurentian University).
- 2 references (names and contact information only; where possible, at least one should be a current teacher).

**Admission selection is based upon overall submission criteria and not solely on grade averages.*

Relevant study opportunities
Master of Architecture (M.Arch.) at Laurentian, or a related specialization in design, environmental studies, or architectural sciences at another university.

First-year courses
ARCH 1006 – Design Thinking
ARCH 1007 – Sacred Places
ARCH 1505 – Design Studio I: Place
ARCH 1515 – Design Studio II: Place II
ARCH 0100 – Co-operative Term 1**

+ electives (12 cr.) in Arts or Sciences

***ARCH 0100 must be taken in the summer of the first or second year of the program.*

** The McEwen School's M.Arch. (in conjunction with its BAS) is currently being reviewed for accreditation: "The CACB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within six years of achieving candidacy if its plan is properly implemented."*

See CACB website's at https://cacb.ca/accredited-programs/ for candidate school status updates.

Viewbook 2021 reflects normal operations on campus.

Candidate School for CACB Accreditation*

* The McEwen School's MArch (in conjunction with its BAS) is currently being reviewed for accreditation: "The CACB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within six years of achieving candidacy if its plan is properly implemented."

See CACB website at https://cacb.ca/accredited-programs/ for candidate school status updates."

3.2 Public Information

The Program must provide clear, complete, and accurate information to the public and include the following text in its official Program information.
• "In Canada, the Canadian Architectural Certification Board (CACB) is the sole agency authorized by the Canadian Architectural Licensing Authorities (CALA) to accredit Canadian professional degree programs in architecture for the purposes of architectural licensure."
In addition to the previous text, all Programs that have been granted candidacy status must include the following in its entirety:
• "The CACB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within six years of achieving candidacy if its plan is properly implemented."
The APR must include:
• the Program description as it appears in the University academic calendar or any other institutionally authorized official description of the Program and,
• evidence that the Program has communicated to all faculty and incoming students the information regarding the CACB process for accreditation.

The Program's courses, as they have been annually passed by the University, are updated on the LU website as well as the *LU Viewbook*, in both English and French. Calendar Descriptions of all core courses are posted as well on the web in both French and English:

Bachelor of Architectural Studies (BAS) degree -
- *https://laurentian.ca/program/architecture/details*
- *https://laurentienne.ca/programme/etudes-architectures/details*

Master of Architecture (MArch) degree -
- *https://laurentian.ca/program/architecture-march/details*
- *https://laurentienne.ca/programme/architecture-march-fr*

Our web presence has historically been the MSoA's biggest weakness and we have thus been working on a new website since 2018 that is planned for an official launch in the Fall of 2020. We will be consistent with our information on the new webpage, as outlined here.

Our Bachelor of Architectural Studies (BAS) Program has been advertised annually in the *Laurentian University Viewbook* in both English and French since 2012 (see English & French versions in Supplementary Material).

The *LU Viewbook* is heavily used at the Ontario University Fair (OUF) where all Ontario Universities recruit with such material every September in Toronto. The *LU Viewbook* is handed out to prospective students at LU Open Houses each November and again in March. We hand out copies to prospective students and parents all year round as the University provides the MSoA with copies in both official languages. See opposite page for the inclusion of CACB text in the *Viewbook*.

Other online sites where the MSoA has information regarding our Program include:

- Ontario Universities Council's (OUC) Quality Assurance - *https://oucqa.ca/program-approvals-menu/program-approvals/*
- ACSA (Association of Collegiate Schools of Architecture) *https://www.acsa-arch.org/forms/*CompanyFormPublic/search
- Facebook for LASA student association (LASA/AELA) - *https://www.facebook.com/LASAAELA/*
- Facebook for MSoA (*https://www.facebook.com/McEwenArchitecture/*)
- The Telegraph (student-led website exhibiting MSoA Student work) - *https://www.thetelegraph.ca/place*

All MSoA faculty have been provided with an electronic copy of the CACB *Conditions and Terms for Accreditation*. Students have had meetings around the SPCs and they are now included in the course syllabi template, that states the following:

> "As per the Conditions and Terms for professional accreditation, as determined by the Canadian Architectural Certification Board (CACB), our Program must demonstrate satisfactory performance in relation to specific student performance criteria (SPC). The SPC categories specifically related to this course are as follows:" [hyperlink to the CACB online PDF document is included]

All BAS and MArch students received an email in August of 2020 with links to the CACB *Conditions and Terms* as well as the CACB *Procedures for Accreditation* (Appendix Q). There have been a series of student meetings (with Dr. Fortin and Dr. Galvin) in the past years regarding the Initial Accreditation process, particularly with senior students. Students and Alumni have also participated in the APR survey for this year.

The MSoA has been meticulous in not stating any false information regarding accreditation status in any of its printed material. Instead, we answer individual inquiries through an FAQ prepared by the Director and sent out by the Architecture Office. Once we achieved CACB Candidacy Status, we immediately notified our community

3.2 Public Information

through official emails and by working with our University IT and communications departments to update our website and print material accordingly.

Although it has been challenging to conduct annual recruiting and attract students to a new Program that cannot be accredited until the process has been completed, we have always told prospective students and parents that the Program could not be accredited from its inception in 2013. We have also been careful to explain that the CACB accredits professional programs, only which in the case of the MSoA is the full six-year Program.

The McEwen School of Architecture's primary social media presence is currently our Facebook page (*McEwen Architecture – Architecture McEwen*), which is the most up-to-date source with projects and films that the MSoA produces and which has 1,477 "likes" as of August 2020, the third highest of schools of architecture in Canada. For example, our webisode called "Crafting a Curriculum," posted on Facebook, received 6,182 views in 3 days, and has an "Estimated Reach" of 23k, according to Facebook Insights, as of August, 2020. The Facebook page is managed by the Chair of the MSoA Cultural Committee with student support. Our new MSoA webpage, to be launched in 2020, will significantly improve our web presence moving forward and we have engaged with a local web design firm, with support and coordination with the LU Communications Office, to ensure it is maintained.

Candidate School for CACB Accreditation

In Canada, the Canadian Architectural Certification Board (CACB) is the sole agency authorized by the Canadian Architectural Licensing Authorities (CALA) to accredit Canadian professional degree programs in architecture for the purposes of architectural licensure.

The McEwen School's MArch in conjunction with its BAS is currently being reviewed for accreditation:

The CACB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within six years of achieving candidacy if its plan is properly implemented.

Screen Capture from LU website with Program Details about our MArch Program

3.3 Equity, Diversity and Inclusion

> *The Program must conform to provincial and institutional policies that augment and clarify the provisions of the Charter of Rights and Freedoms as they apply to social equity. Policies in place that are specific to the school or professional Program should be clearly stated, as well as the means by which the policies are communicated to current and prospective faculty, students, and staff.*
>
> *• the APR must include procedures in place to achieve equity, diversity, and inclusion in school operations and activities.*

3.3.1 Equity, Diversity and Inclusion within Laurentian University

The McEwen School of Architecture is fully committed to Equity, Diversity, and Inclusion. As stated in previous sections, the core values of the Program from its onset were RESPECT, INCLUSION and COMMUNITY and these remain central to our collective identity. We are well supported in this mission by Laurentian University's similar commitment to these shared values. Laurentian University's *Collective Agreement* with the Laurentian University Faculty Association includes clauses regarding equity and human rights. In particular, Section 3.15 is titled "No discrimination or harassment" and states the following:

> The Employer recognizes the need to provide an environment free from discrimination and harassment. To that end, the Employer has established a Human Rights Office, headed by a Human Rights Advisor and has created discrimination and harassment policy.

The mandate for the Equity, Diversity and Human Rights Office (EDHRO) is stated as follows:

> [To] lead the University community in fostering an inclusive and respectful learning and working environment for all students, staff and faculty by providing expertise, guidance, advice and counsel to members of the University community in order to ensure compliance with the Accessibility for Ontarians with Disabilities Act (AODA), the Occupational Health and Safety Act (OHSA), the Ontario Human Rights Code (Code) and Laurentian University's Policy on a Respectful Workplace and Learning Environment, Policy on Response and Prevention of Sexual Violence, Code of Student Rights and Responsibilities and any other related policies.

The University has a series of links to policies covering equity, human rights, indigenous clauses, and student's rights and responsibilities. These are circulated on the LU website [https://laurentian.ca/policies-accountability/policies] as well as internally on the LU Intranet. The Senate's rules as well as the *LU Collective Agreements* govern the larger University. Examples of policies included under the purview of the EDHRO include the following:

Laurentian University of Sudbury Code of Student Rights and Responsibilities

Purpose - The purpose of the Code of Student Rights and Responsibilities ("Code") is to define the parameters of conduct considered to be consistent with the goals and values that promote the wellbeing of the Laurentian University of Sudbury's ("University") community.

Scope - This Code applies to non-academic behavior of students, individually and collectively, in an academic setting, social setting, or recreational setting, either on or off campus.

Policy on Employment Equity

Purpose - Laurentian University is committed to principles of equity and diversity in the workplace. Employment equity involves hiring the best-qualified candidate while ensuring a fair and equitable hiring process for all persons. The University shall hire and make employment and promotion decisions on the basis of qualifications and merit.

The University is also committed to achieving and maintaining a representative workforce and a fair workplace for all employees and will initiate employment equity measures to ensure the full participation and advancement of the following designated groups which have been under- represented including women, Aboriginal Peoples, persons with disabilities, visible minorities and sexual and gender minorities

Scope - This policy applies to all employees of Laurentian University.

Policy on Accessibility Standards for Customer Service

Purpose - The University is committed to excellence in service in providing goods, services and facilities to University students, faculty, staff and other users in a way that respects the dignity and independence of people with disabilities. The University strives to ensure that persons with disabilities have equal opportunity to access its goods, services and facilities in an integrated manner, and where possible, without the need for adaptation, unless alternate measures are necessary. Existing policies will be applied in an integrated manner that is consistent with the principles of independence, dignity, integration and equality of opportunity for people with disabilities.

3.3 Equity, Diversity, and Inclusion

Scope - This policy applies to all members of the Laurentian University community including students, faculty, staff and other users as well as Laurentian University Departments/ Schools. Each University Department/School shall use reasonable efforts to ensure that its policies, practices and procedures are consistent with this Policy, its principles and commitments.

Policy on a Respectful Workplace and Learning Environment

Purpose - This Policy on a Respectful Workplace and Learning Environment, which is Laurentian University's policy on Discrimination and Harassment (the "Policy") is intended to:

1.1.1. Promote a respectful, diverse and inclusive community where every individual can work and learn in an environment that is supportive of productivity and academic achievement and respects the dignity and worth of all members of the Laurentian University Community;
1.1.2. Promote a workplace and learning environment that is free of Discrimination and Harassment;
1.1.3. Protect the health, safety and security of the Laurentian University Community;
1.1.4. Outline the rights, responsibilities and types of behaviour that fall within the scope of this Policy;
1.1.5. Outline procedures for handling and resolving complaints of alleged Discrimination and Harassment;
1.1.6. Meet the requirements of the Occupational Health and Safety Act, 1990 (the "OHSA") and the Ontario Human Rights Code, 1990 (the "Code").
1.1.7. This Policy and the Program on a Respectful Workplace and Learning Environment, which supplements this Policy, (the "Program") are part of a tetralogy of Laurentian University policies that support learning and working places free from Discrimination, Harassment, violence and sexual violence including [...]

Scope - This policy applies to all employees, students, contractors, volunteers and visitors to the Laurentian University workplace and learning environment.

[...] For the purpose of this Policy, the Laurentian University workplace and learning environment includes all locations where Laurentian University business occurs, including but not limited to, teaching, learning, research and administration.

[...] While no policy can provide a full description and definition of behaviours that fall within the meaning of Discrimination and Harassment, Appendix A of the Program lists examples of behaviours that can fall within these definitions.

[...] This Policy also has an accompanying Program (including procedures) and training

In addition to the above are the following LU policies:

- Policy on Workplace Violence Prevention
- Policy on Nepotism
- Policy on Occupational Health and Safety
- Response and Prevention of Sexual Violence

3.3.2 Communication to Students, Faculty and Staff

The MSoA currently has 3 primary means of communicating the above policies to our community:

- First, representatives from EDHRO have been scheduled to offer presentations to incoming students as part of Student Orientation during their first week of classes at our institution. This sets an immediate tone for the resources available as well as the values of the University;
- Second, EDHRO similarly joins an MSoA School Council meeting annually (most recently on September 9, 2019) to ensure faculty and staff are also aware of University policies and where to pursue help as needed;
- Lastly, the following is included in the template for all syllabi throughout the BAS and MArch Programs:

  University Policies:
  The McEwen School of Architecture expects that students will review and become familiar with various Laurentian University policies, including but not limited to:

  Code of Student Conduct Non-Academic
  Grade Appeal Policy

  These policies, along with other questions you may have, can be accessed through the Student Portal on the Intranet; click on "Academics," then "Rules and Regulations". If you have any questions about these policies please contact the office of the MSoA Director. [hyperlinks are also included in the digital versions]

This means that during the introduction to every course, the importance of such policies is emphasized by course instructors and highlights where students can find more information (with hyperlinks in the PDFs). In the Fall of 2020 we have introduced a requirement for each cohort to complete a LU "Academic Integrity Seminar for Students" course available through our D2L learning platform. Students will be required to present their certificate of completion for the relevant courses to ensure that our entire student body understands academic integrity.

At the time of writing this APR, we are in the final stages of designing a new school website where we will include a section containing the above information. The MSoA Director and program coordinators will continue to work closely with EDHRO and the Dean's office to promote and assure that equity, diversity and inclusion within our Program is prioritized.

3.3.3 Equity, Diversity and Inclusion within the MSoA

At the moment, with 17 full-time faculty members (16 FTE), including the Director and a half-time Master Lecturer, the McEwen School of Architecture has 6 female members (35%) and 11 male members (65%). Including our Sessional instructors in 2019-20, we had 11 female (38%) and 18 male (62%) instructors.

Attempting to deliver a curriculum that teaches in both French and English as well as hiring Indigenous faculty from the onset has been a worthy challenge. For the 2019-20 academic year, we had 1 FN and 1 Métis faculty, and 13 French-speaking faculty (8 full-time faculty and 5 Sessional instructors). While we do not keep comprehensive statistics on ethic and/or cultural identity or sexual orientation, our faculty is composed of a diverse group of individuals with regards to all of these categories. Furthermore, many of our faculty have engaged with research programs specifically focused on underrepresented groups within the architectural profession. For example, Dr. Tammy Gaber received a "Women Who Inspire" award from the Canadian Council of Muslim Women in 2019 and Master Lecturer Eladia Smoke has emerged as a central voice for Indigenous architecture in Canada.

At the student level, and as reflected in the chart on p. 57, our female student body has been larger than our male student body in all years but in 2014. This reflects the upward trend in female students studying architecture in Ontario's Schools of Architecture. At present, our student body remains almost exactly at 50:50 after a 7 year cycle. We have a diverse student body and make an effort to celebrate cultural identity within the culture of our Program. However, the Black Lives Matter (BLM) movement greatly impacted our School, recognizing our shortfalls in supporting Black students in our Program. Our faculty responded swiftly to a critique by one of our students regarding our own biases, voting unanimously to support 2 new $1000 scholarships for each of the BAS and MArch Programs for Black Excellence in Architecture, as well as committing funds for Black History Month and to bring in Black scholars and reviewers. This movement has highlighted that while our curriculum has been informed by an anti-colonial approach to architectural education from its inception (already a huge shift), there remains significant work to be done in terms of our overall inclusivity.

On a positive note, we have witnessed a significantly high number of our students' Master's theses meaningfully

Revitalization Powwow hosted at the MSoA by the Indigenous Student Circle, Feb 2, 2019

3.3 Equity, Diversity, and Inclusion

engaged with topics related to diversity in architecture, including the following: LGBTQ2S+ community-building in Toronto; lack of Indigenous presence in Toronto; Black segregation in Chicago; intergenerational trauma in immigrant families in New York City; housing for immigrant populations in Sudbury; transitional housing for women in Sudbury; tackling homelessness with dignity in Sudbury; a retreat for Sikh diaspora in British Columbia; the appropriate design of mosques for Northern Ontario; water scarcity in Bangalore, India; cultural identity for Franco-Ontarians in Northern Ontario; and the role of women in honouring water for Indigenous communities. The MSoA has been very proud to see our graduate students take on such important topics for diverse social groups, which we feel reflects the shared values of the overall Program. Such diversity and ethical positioning in the final Thesis year also reaffirms that we are providing a solid educational foundation (including encouragement, guidance and support) for students to pursue their design explorations in such diverse areas.

3.4 Student Composition, Well-Being and Enrichment

The Program must demonstrate that it provides support and encouragement for students to achieve their full potential during their school years and later in the profession, as well as an interpersonal milieu that embraces cultural differences. The Program must demonstrate that it benefits from and contributes to its institutional values. Given its particular mission, the APR may cover issues such as: how students participate in establishing their individual and collective learning agendas; how they are encouraged to cooperate, assist, and share decision-making with and give respect to students who may be different from them; students' access to the critical information needed to shape their futures; and how the diversity, distinctiveness, self-worth, and dignity of students is nurtured in the academic environment .

The APR must include:
• a description of the student cohort (background, gender, etc.); the Program's academic standards for students; a description of the students' educational backgrounds; and the selectivity, retention, and graduation rates of the Program since the last accreditation sequence;

3.4.1 Description of Student Cohort

Historical Snapshot (2013-2016)
From the previous APR in 2017, The McEwen School of Architecture (MSoA) opened in September 2013 with an inaugural class of 68 students. Of the initial class, 48 graduated from the BAS Program in 2017. Subsequent years have maintained a much higher percentage in the Program. The first class were 'pioneers' and they did not have the advantage of a class ahead of them to follow. Whereas in our first year the majority of our students were from Southern Ontario, with 32% coming from the north, in subsequent years students from Northern Ontario represented 25%, 30%, 36% and 33% of the entire class. The MSoA has averaged 36% of each incoming class being drawn from the north over the past three years, including a large number of students that take our Design Studios in French. This is a positive indicator for the overall mission of the MSoA.

Current Snapshot (2020)
As of today's date, we expect approximately 335 students in our combined professional program (BAS and MArch) for the upcoming academic year (2020-2021). Note that this number may fluctuate slightly as September approaches, and changes to registration are still able to be made as late as Friday September 18, 2020 according to the University's Important Dates calendar (https://laurentian.ca/important-dates).

Ice Station Warm-up Event, Ramsey Lake, 2020

3.4 Student Composition, Well-Being, and Enrichment

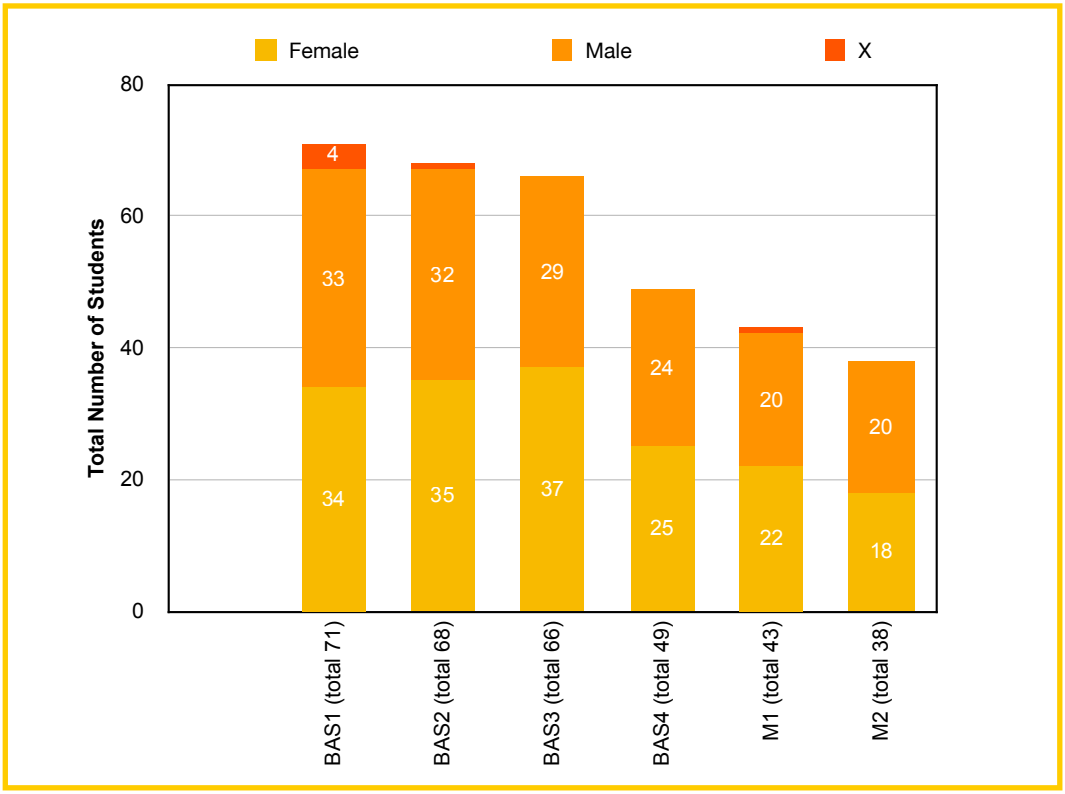
Gender Indentification

Of the 335 current students (254 BAS and 81 MArch), there is almost an even split between male and female, where “M” equals male, “F” equals female, and “X” equals other (student either did not identify, or deliberately chose “X” as their gender identification).

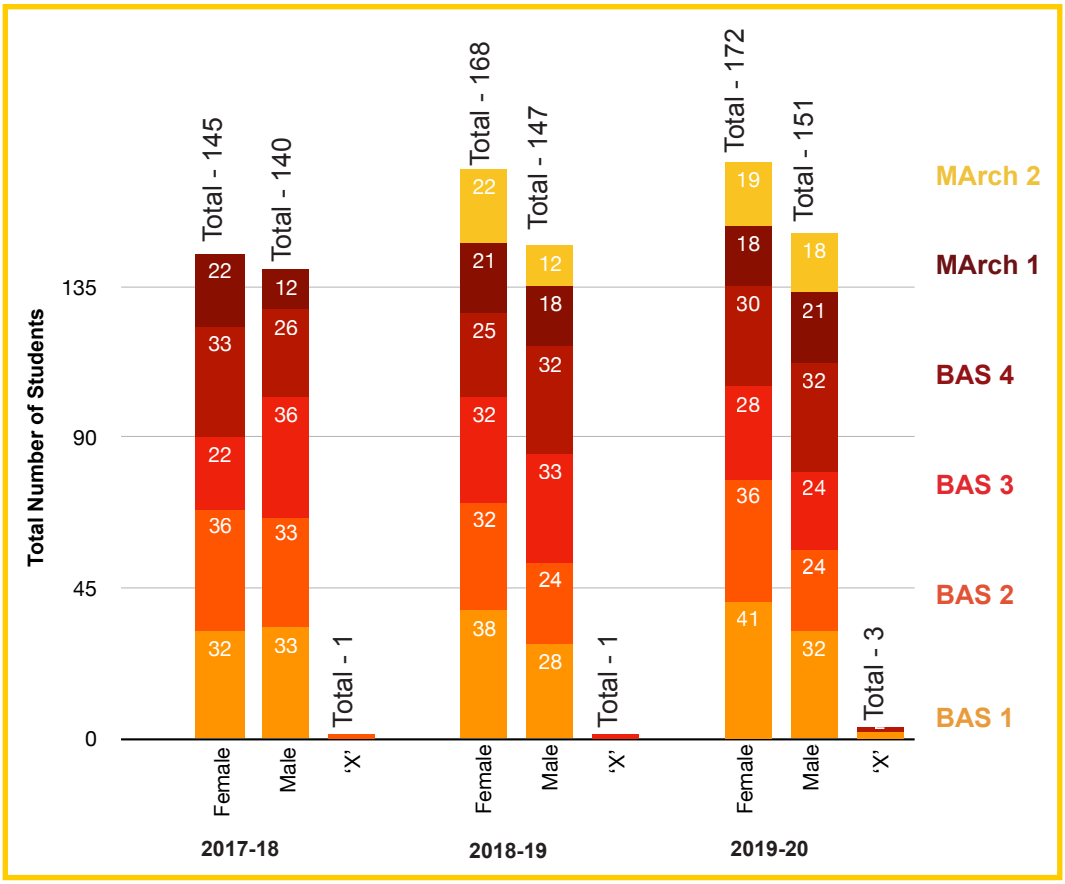
As per the chart opposite, 47% of the current MSoA student body identifies as male, 51% identifies as female and 0.6% (two students) identifies as other. The remaining 1.4% (four students) in the incoming BAS class who were identified as X were identified as such because the information was not available in their files, and therefore an additional gender identification may be forthcoming.

It should be noted that these numbers also speak to yearly attrition rates; sometimes numbers fluctuate because students who leave the Program tend to do so more often immediately following their first year (though some do leave or are asked to withdraw during upper years), or those who may have taken a year off reappeared in order to continue with the Program. These are approximate numbers and should be interpreted as such, both with respect to gender identification as well as attrition rates (please see section below that discusses attrition in greater depth).

MSoA Student Gender Identification 2020-21 (Total = 335 students)



Historical Gender Identification 2017-20



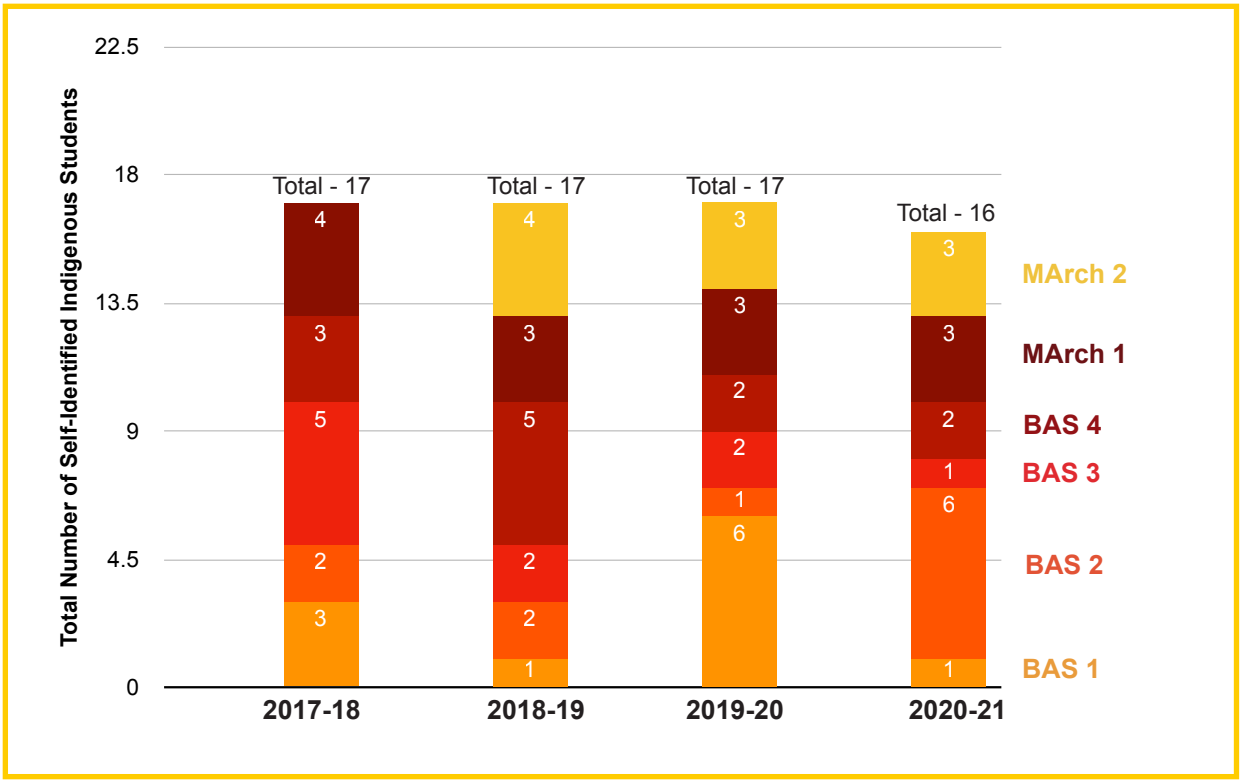
3.4 Student Composition, Well-Being, and Enrichment

Student Indigenous Self-Identification (2017-2020)

We have at least 16 self-declared Indigenous students in the Program. This breaks down in the upcoming 2020-2021 academic year as follows:

The total number of students who self-identify as First Nation, Métis, or Inuit (FNMI) tends to be approximately 16 to 17 students within the entire student cohort in a given academic year. As per the chart below, the total number of Indigenous students has remained consistent. In spite of one less student than in previous years, this year's total of 16 students who have self-identified as Indigenous constitute about 5% of the entire MSoA student population.

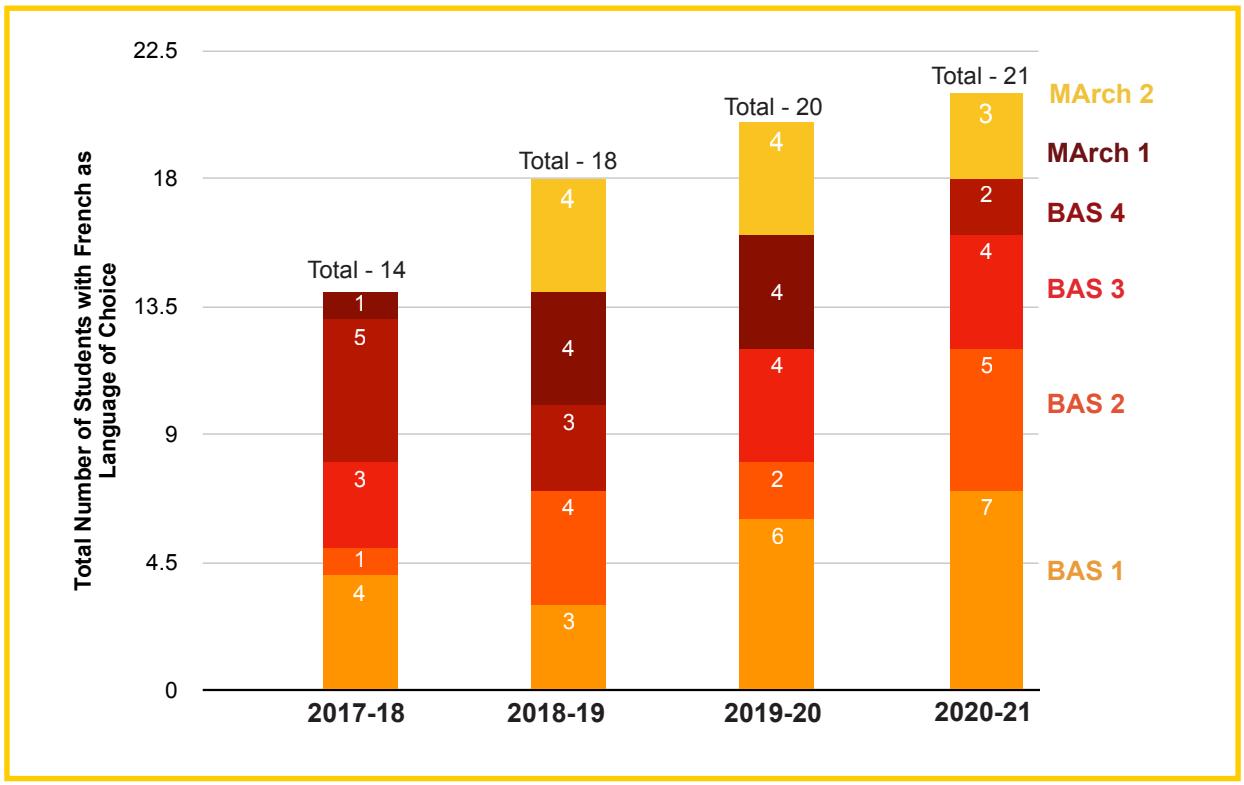
MSoA Indigenous Student Identification 2017-21



Student Choice of French as a Language of Preference (2017-2020)

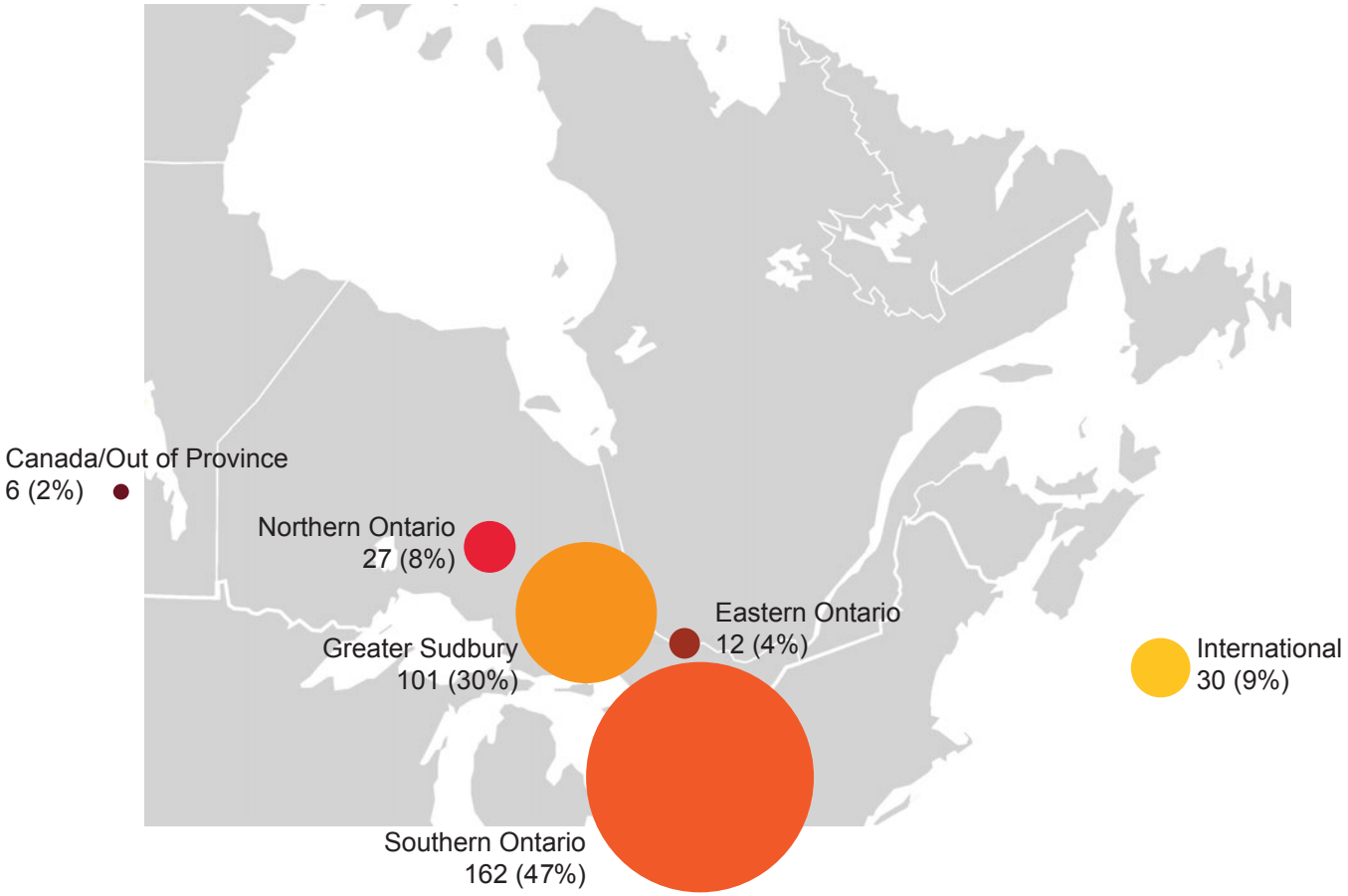
Of the 335 students currently expected at the MSoA for 2020-2021, 21 of them indicated their language preference as "French." This is quite small at first glance (only 7% of the 335), but it is not an accurate reflection of the number of French-speaking students in our Program who, though they might have chosen "English" as their language of preference when applying to the BAS or MArch Programs, also speak French, or in many cases are bilingual (some are even Francophone but chose to apply in English for their own reasons). Consequently, there is a larger number of students who chose to pursue Design Studio courses in French than who have actually indicated their language of preference as French. For example, our BAS Design Studio courses offered in French typically have anywhere from 9 to 14 students registered for same, on a yearly basis. Even assuming the number is no more than 10 students per year in the four-year BAS Program, this would still equate to roughly *40 students enrolled in Design Studio courses offered in French* for the BAS Program in one year. That's almost double the number of students who identified French as their language of "preference," and would actually constitute at least 12% of the overall student population. Happily, as evidenced by the historical numbers below, the number of students who chose French as their language of preference when initially applying for our BAS Program has continued to increase.

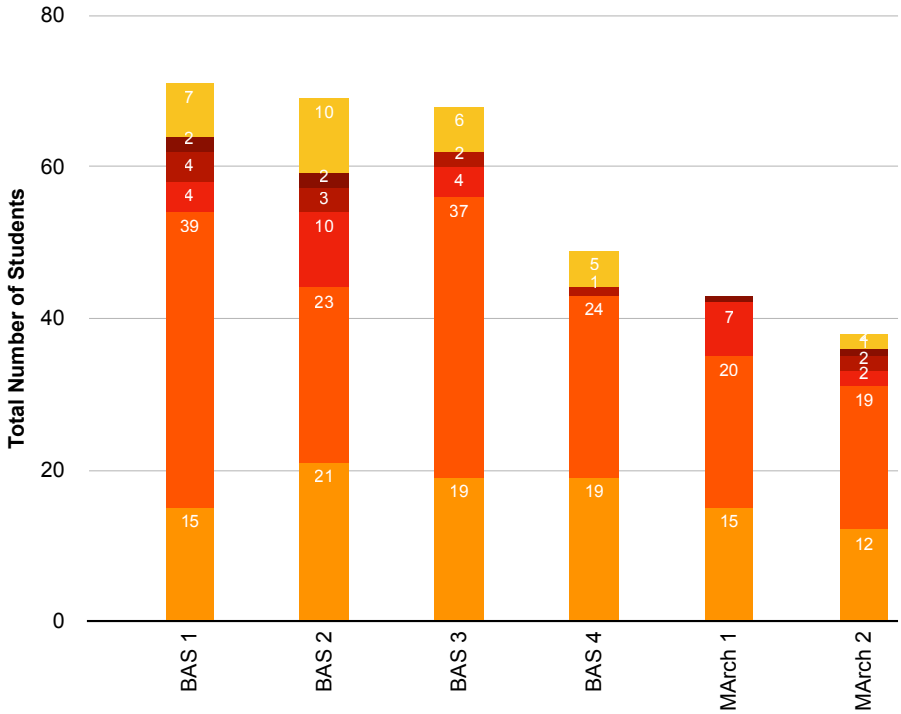
MSoA Student Choice of French as Language of Preference 2017-21



3.4 Student Composition, Well-Being, and Enrichment

MSoA Student Geographical Background 2020-21





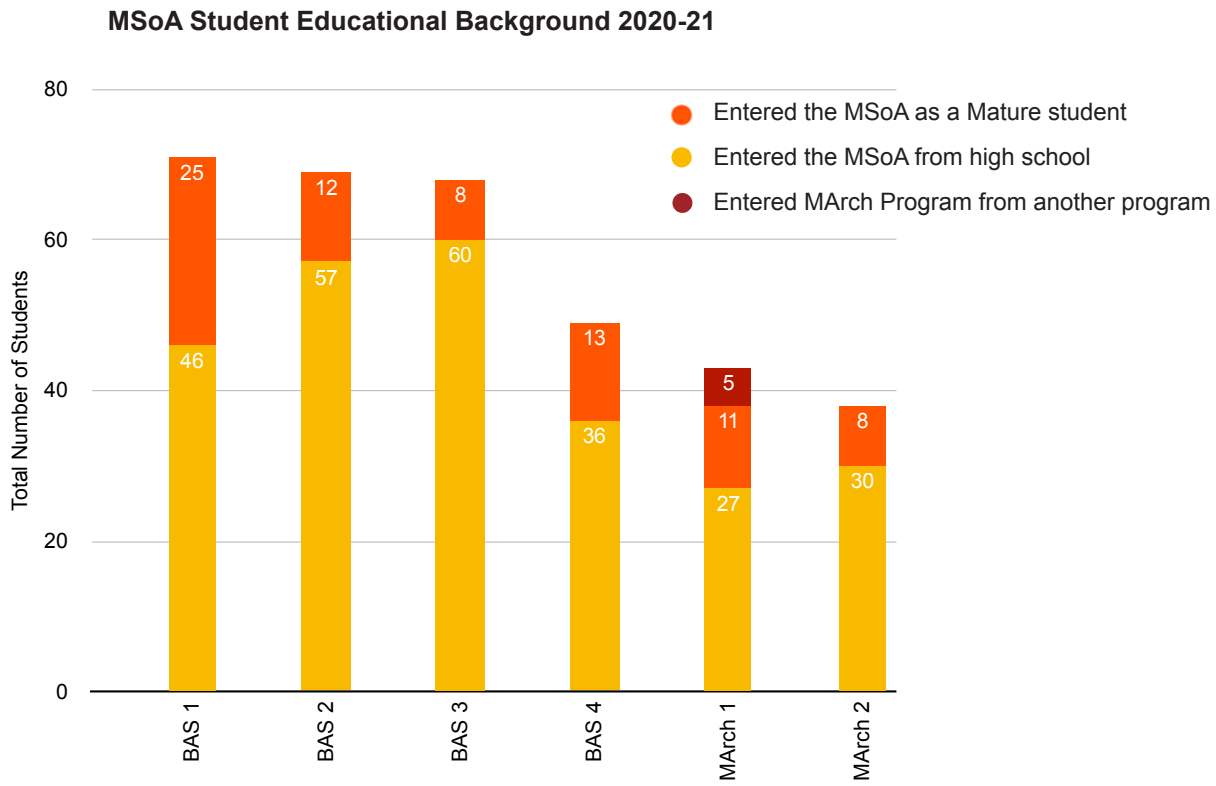
The APR must include:
• a description of the student educational backgrounds

Student Educational Background (2020-21)

When discussing student educational background, it is important to note that students are either indicated as “high school” (meaning that they applied and were accepted to the BAS Program with a high school diploma, which includes international baccalaureate studies) or “mature” (meaning that they applied and were accepted to the BAS Program with additional post-secondary education and experience, including but not limited to Collège d’enseignement général et professionnel (CEGEP), already completing a post-secondary degree, or transferring from within another program at Laurentian University to the architecture program). Additionally, background information is also provided on where students are applying from; that is, whether they live in Sudbury and Area (Greater Sudbury or within the district of Sudbury, which includes Espanola, Skead, Wahnapitae, Whitefish and so forth), in Northern Ontario (e.g. North Bay, Sturgeon Falls, Sault Ste Marie, Thunder Bay), Eastern Ontario (e.g. Kingston, Ottawa), Southern Ontario, Canada (non-Ontario) or from further afield (international locations).

Historical Student Educational Background (2017-2019)

The historical student educational background has remained consistent throughout, with mature students making up anywhere from 10-25% of a yearly cohort (but no more than one quarter of that cohort) and high school making up the rest; and most students still hail from Southern Ontario (usually close to if not half the yearly cohort, with those from the Sudbury area and wider Northern Ontario coming in a close second, and occasionally surpassing Southern Ontario as is the case with our current first year MArch and 2nd year BAS cohorts). Typically less than five students are from Eastern Ontario. International numbers have also been steadily growing but still remain a small percentage of a yearly cohort, with the least number of students coming from Canada, but outside of Ontario.



3.4 Student Composition, Well-Being, and Enrichment

Academic Standards For Existing BAS Students

The following is Laurentian University's GPA scale (0-10). This became effective September 2014:

BAS Grading Scheme

Percentile Numerical	Letter Grade	Value	Definition
90% - 100%	A+	10	Exceptional
85% - 89%	A	9	Outstanding
80% - 84%	A-	8	Excellent
75% - 79%	B+	7	Very Good
70% - 74%	B	6	Good
65% - 69%	C+	5	Satisfactory
60% - 64%	C	4	Adequate
55% - 59%	D+	3	Passable
50% - 54%	D	2	Marginal
40% - 49%	E	1	Failure
0% - 39%	F	0	Failure

The *MSoA BAS Academic Policy* stipulates that BAS students must earn a minimum of 60% in Design Studio courses in order to successfully complete same. Students must earn a minimum of 50% in other architecture lecture courses, as well as their elective courses (unless otherwise specified by the department through which they are taking an elective course) in order to successfully complete these courses. Please refer to the *MSoA BAS Academic Policy* (see Appendix J), which also includes additional details such as how many times a student can repeat an architecture course before being asked to withdraw from the program. If students wish to pursue the MSoA's MArch degree following completion of the BAS program, they must maintain an average of at least 70% in order to be eligible for acceptance to the MArch program.

Academic Standards For Existing MArch Students

Grading will be carried out with respect to the Laurentian University graduate grading scheme:

MArch Grading Scheme

Percentile Numerical	Letter Grade	Value	Definition
90% - 100%	A+	10	Exceptional
85% - 89%	A	9	Outstanding
80% - 84%	A-	8	Excellent
75% - 79%	B+	7	Very Good
70% - 74%	B	6	Good
65% - 69%	C+	5	Satisfactory
60% - 64%	C	4	Adequate
55% - 59%	D+	3	**Failure - must repeat**
50% - 54%	D	2	**Failure - must repeat**
40% - 49%	E	1	**Failure - must repeat**
0% - 39%	F	0	**Failure - must repeat**

For the successful completion of a program, a GPA of 5.5 (70%) must be maintained over all courses. **Students must not have any grade lower than "C"** in any course. Students are permitted to repeat one failed course to improve their mark.

Retention Rates (2017-2020)

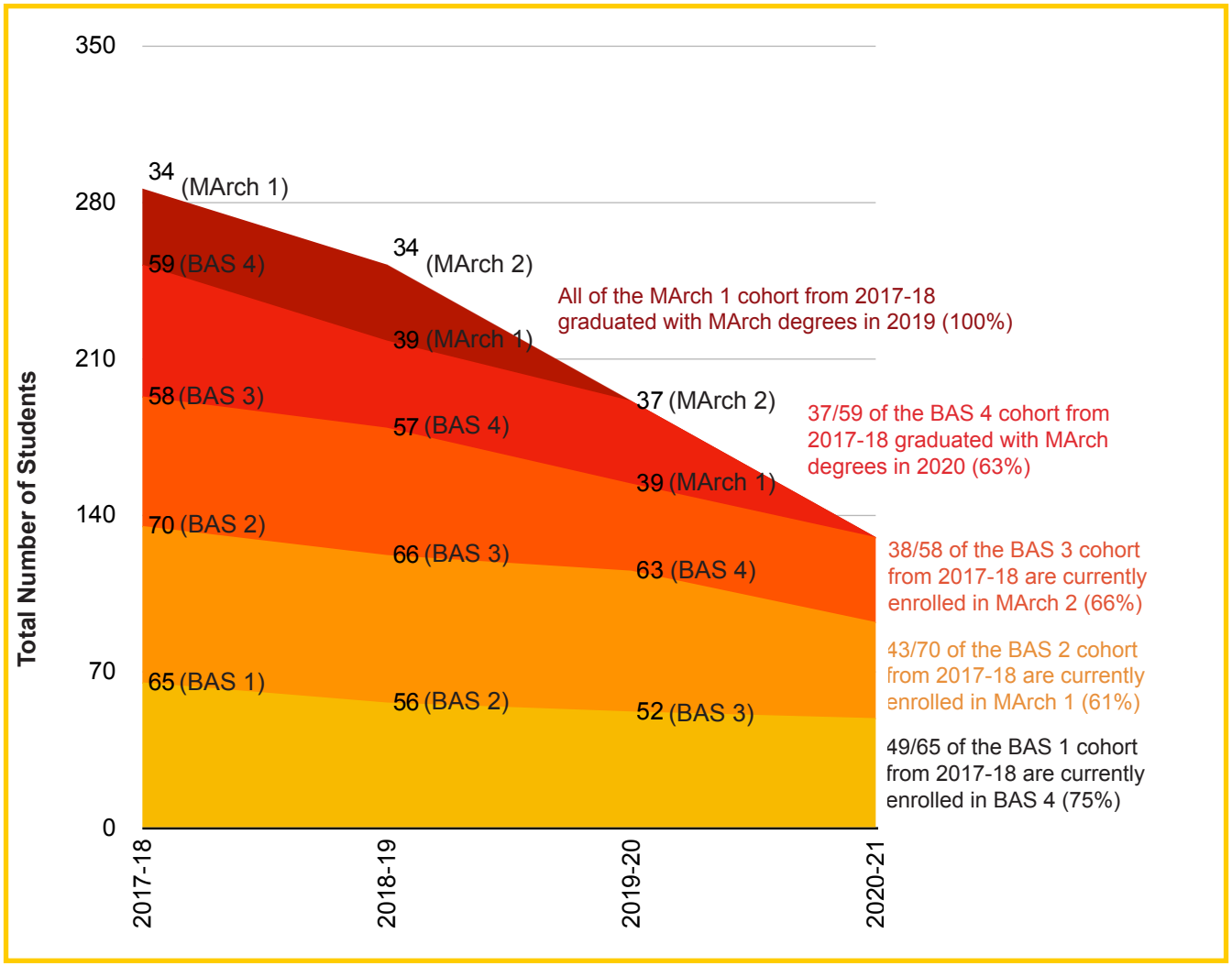
Retention and attrition are closely related, so the discussion of student retention will be examined while considering common attrition rates on a yearly basis. While the University's Tableau system offers a summary of retention rates for both the BAS and MArch Programs, it is important to note that these numbers may include students who registered for courses but who were "no-shows." Our numbers do not include students who did not show up for the Program, which can include students who accepted an offer from the University and never registered, or students who accepted an offer, registered and then never appeared. It is for this reason that there will be a discrepancy between our numbers and the numbers available via the Tableau platform.

Our numbers take into account only students who actually registered for courses and showed up at the beginning of the school year in order to begin their studies in these courses. Our numbers include but do not discriminate between students who voluntarily left the program, versus those who failed out of the program and were asked to withdraw by the University.

As noted in the section above regarding gender identification, sometimes students took a year off and returned either following the completion of that year or sometimes later in order to resume the program. Some students experienced financial difficulty and were unable to continue in the program, but not for lack of desire or academic ability. Usually the most significant attrition occurs over the course of the first year of the BAS Program.

As noted in the statistics below, the cohort that made up the first year BAS class in 2017-2018 was 65 students. In their second year in 2018-2019 this cohort numbered 56, which equates to an attrition rate of 14%. This is a higher attrition rate, which has steadily been decreasing over the past few years. For example, even considering the effect of COVID-19, the 2019-2020 first year BAS cohort

MSoA Attrition Rate for 2017-18 Cohort



3.4 Student Composition, Well-Being, and Enrichment

of 75 students has dropped down to 68 students for their upcoming second year of the BAS Program in 2020-2021. This is only a 9% attrition rate over the course of a single academic year.

Considering that we are gaining approximately 9-10 students per year (particularly since we began teaching all six years of the combined programs), and losing less than that in first year attrition, this bodes well for the continued development of the MSoA.

Graduation Rates To Date

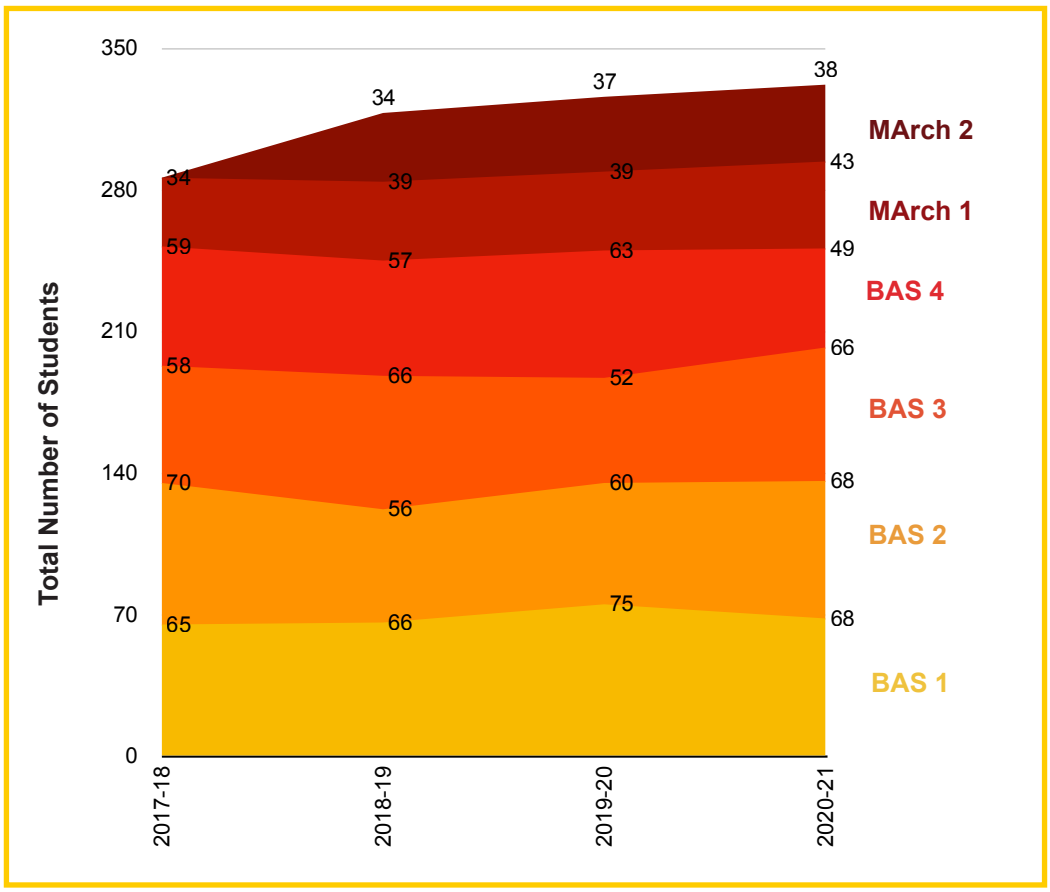
There have been a total of **271 students** who have graduated from the MSoA (68 MArch graduates and 212 BAS graduates). Of the 212 BAS graduates, only 69 did not continue in our MArch Program. Of the 69 who did not continue in the MArch Program, 11 had final GPAs of less than 70%, which would have made them ineligible to apply for the MArch Program; therefore, only 27% of those BAS graduates who would have been eligible to apply did not continue into the MArch Program. The reasons for their leaving vary from change of disciplines to going to other Programs in architecture.

It would appear that those who remain in the Program until their fourth and final year of the BAS Program often do complete the degree; only a handful of students (five or less) who remained in the BAS Program up to and including their fourth year did not pass courses in that year and therefore never graduated the BAS Program.

MArch graduates in 2019 (the initial cohort) were 33.
MArch graduates in 2020 (including summer defenses) will be 35

Most recent graduates of the Master of Architecture (MArch) professional degree equals 68 students. To date, less than 5 students haven't finished the University's Faculty of Graduate Studies (FGS) requirements (Co-op, thesis defense, and so forth).

MSoA Overall Enrollment 2017-2020



3.4.2 Safe, Positive and Respectful Learning Environment

> *The APR must include:*
> *• evidence that the school has policies and procedures in place for a safe, positive, and respectful learning and working environment;*

As stated in Section 3.3, the MSoA follows Laurentian University policies that "define the parameters of conduct considered to be consistent with the goals and values that promote the wellbeing of the Laurentian University of Sudbury's ("University") community." The LU Policy on a Respectful Workplace and Learning Environment makes it clear that "every individual can work and learn in an environment that is supportive of productivity and academic achievement and respects the dignity and worth of all members of the Laurentian University Community."

The MSoA believes that a safe and respectful workplace can only ultimately be achieved through the collective behaviour and attitudes of its faculty, staff, and students, and that this must be cultivated and adhered to by all members of our community. In the case that issues arise that make a student feel unsafe, or if they have a concern regarding another student, there are policies within the University to ensure their voice is heard. There is also an important clause to ensure procedural fairness to the Complainant. This is clearly outlined in the Laurentian University of Sudbury Code of Student Rights and Responsibilities. Section 7 of this policy focuses particularly on the following:

Student Rights and Responsibilities:

7.1 To learn in a safe, respectful and positive learning environment.
7.2 To express your views in a responsible, respectful and ethical manner.
7.3 To make a complaint of misconduct without fear of reprisal.
7.4 To procedural fairness when a complaint is made under the Code, including:
- 7.4.1 The right to be fully informed of the nature and details of the Complaint, including the identity of the Complainant.

7.4.2 The right to have an agent present during all stages of the complaint process.
7.4.3 The right to be provided with an opportunity to respond to a complaint.
7.4.4 The right to an appeal of a finding of misconduct.

Essential to this policy is the following clause:

9.1 Any member of the University community may file a complaint of misconduct against a student under this Code. A written complaint must be made by filling out a Case Resolution Request form and submitting it to the Equity, Diversity and Human Rights Office.

There are a number of possible ways for students to voice their concerns or complaints about their learning or working environment, that begins with the course instructor, Program Coordinator, and Director. However, students may also approach the Dean's Office or the Equity, Diversity and Human Rights Office directly, as needed, for confidentiality reasons. For student breaches of the Student Academic Policy, there are also very clear guidelines about due process including Faculty-level external review committees.

3.4 Student Composition, Well-Being, and Enrichment

3.4.3 Enhanced Learning Opportunities

> *The APR must include:*
> *• a description of the Program's approach to co-curricular, extracurricular, and enhanced learning opportunities available to students;*

The MSoA promotes and supports a number of student led enhanced learning opportunities. At a co-curricular level, many students are heavily involved in our student governing body - the Laurentian Architecture Student Association, or LASA. LASA has an events subcommittee that arranges for various activities such as barbeques for incoming BAS students, formal balls, Halloween events, music fundraisers, and canoe trips. Below is a list of LASA-led initiatives in the MSoA since the last CACB visit:

2018 Frosh: This event included a full day orientation for incoming students filled with various student led activities. Incoming students were divided up into various teams and sent on a scavenger hunt around downtown to become familiar with their surroundings. Local Businesses and community groups helped to sponsor this event and were involved in this activity. The orientation ended with a school-wide address and BBQ. Following the waste free theme, tote bags were distributed along with trees, bamboo toothbrushes and a variety of downtown business discount cards.

2018 Frosh Hike: Organized walk with various students around the Lake Laurentian conservation area, a 10km hike on a weekend.

2018 Heaven's Gate Hike: An organized walk with a faculty member from the University of Sudbury, LASA promoted the event within the School and got multiple students outside on a weekend to hike the 10km trail.

2018 Bannerman Whitewater Trip: This trip occurred at the end of September and was led by an Outdoor Adventure Leadership instructor at Laurentian University. Students participated in a day-long river-run down the Bannerman river. Canoes, paddles and life jackets were provided, along with teaching and an introductory experience into whitewater paddling.

2018 Coffeehouse: Hosted by the Townhouse tavern, this event allowed students to showcase their talents on stage. Faculty and students participated in this event and shared hidden talents.

2018 Halloween Party: Hosted by Ziggs this was a 19+ event for students to attend.

2018 Birchbark Canoe Trip: A trip that occurred at the end of September, and affiliated with an Outdoor Adventure Leadership student as one of the guides. A group of 10 students ventured to Camp Temagami to stay for the weekend and paddle the birchbark canoe. Every student on the trip paddled the canoe, day canoe trips occurred to old growth forests and island walks identifying trees and local vegetation.

2019 Nuit Blanche: LASA assisted with coordinating the Sudbury Nuit Blanche. Various LASA members were involved in curating the event, reaching out to artists, marketing, designing posters and running events throughout the night.

2019 Formal: An event hosted within the McEwen School of Architecture, this event was open to faculty and students.

2020 Nuit Blanche and Winter Warm-Up Event: LASA assisted with coordinating the most recent Sudbury Nuit Blanche. Various LASA members were involved in curating the event, reaching out to artists, marketing, designing posters and running events throughout the night. The Warm-Up event happened in conjunction with Nuit Blanche but was run by first-year faculty and students.

Students have also been heavily involved in the annual "Up Here" festival in Downtown Sudbury, where the school has annually partnered with our local art and music communities. Students and faculty have helped construct pavilions, for instance, or have volunteered their time towards the success of the event. We have also offered our building as a resource for artists and welcomed a permanent sculpture by an Indigenous artist from Manitoullin Island to our site during the 2019 event.

The MSoA also initiated a co-curricular event titled the "Building the Thesis Colloquium" in 2019. The idea for this event emerged following an invited presentation by a Sessional studio instructor, Kat Kovalcik, to present her recently completed thesis project from the University of Waterloo to the School, and in particular for our inaugural Thesis class, to offer a student perspective on the thesis process. The event was such a success that the School agreed to convert this into a new annual event that welcomes 3 thesis students to the MSoA, as nominated by their Programs, to present their thesis and offer a round table discussion about the architectural thesis process. This also allows our students to socialize with recent graduates from other Programs to better understand diverse approaches to an individual design thesis.

Our downtown location makes it more challenging to coordinate participation in student societies and student-led activities on the main campus. However, the student-led MSoA Nuit Blanche event provides a significant

opportunity for students to engage with the broader University and the Greater Sudbury community by sharing their creative work and energy through a broadly recognized community event. The MSoA Nuit Blanche has very quickly established itself as one of the premier arts events of the year in Downtown Sudbury.

Tire sur la neige at Nuit Blanche, 2018

3.4 Student Composition, Well-Being, and Enrichment

BAS Canoe Trip along the French River, 2017

3.4.4 Field trips and Off-campus Activities

> *The APR must include:*
> *• evidence of the Program's facilitation of student opportunities participate field trips and other off-campus activities;*

The MSoA strongly believes that lived experience is one of the strongest forms of education and thus supports significant travel opportunities throughout the combined BAS/MArch Program. The following annual field trips take place in the BAS Program: Toronto (1st year), Canadian Ecology Centre (2nd year), Montréal (3rd year) and Detroit/Chicago (4th year). In the past, we have also had our 2nd year cohort paddle canoes at Killarney or along the French River, and students frequently spend time in our local parks and conservation areas for various forms of site analysis. As described in other sections, we have also had many Design Studio and course projects that collaborate with local community groups, First Nations and other regional municipalities. Students also travel within the region for various other core courses, for instance to local sawmills to learn more about sustainable forestry practices. Students have also entered design competitions for academic credit through our Independent Study course (ARCH 3906), with travel to New York and Ottawa for site analysis, for example.

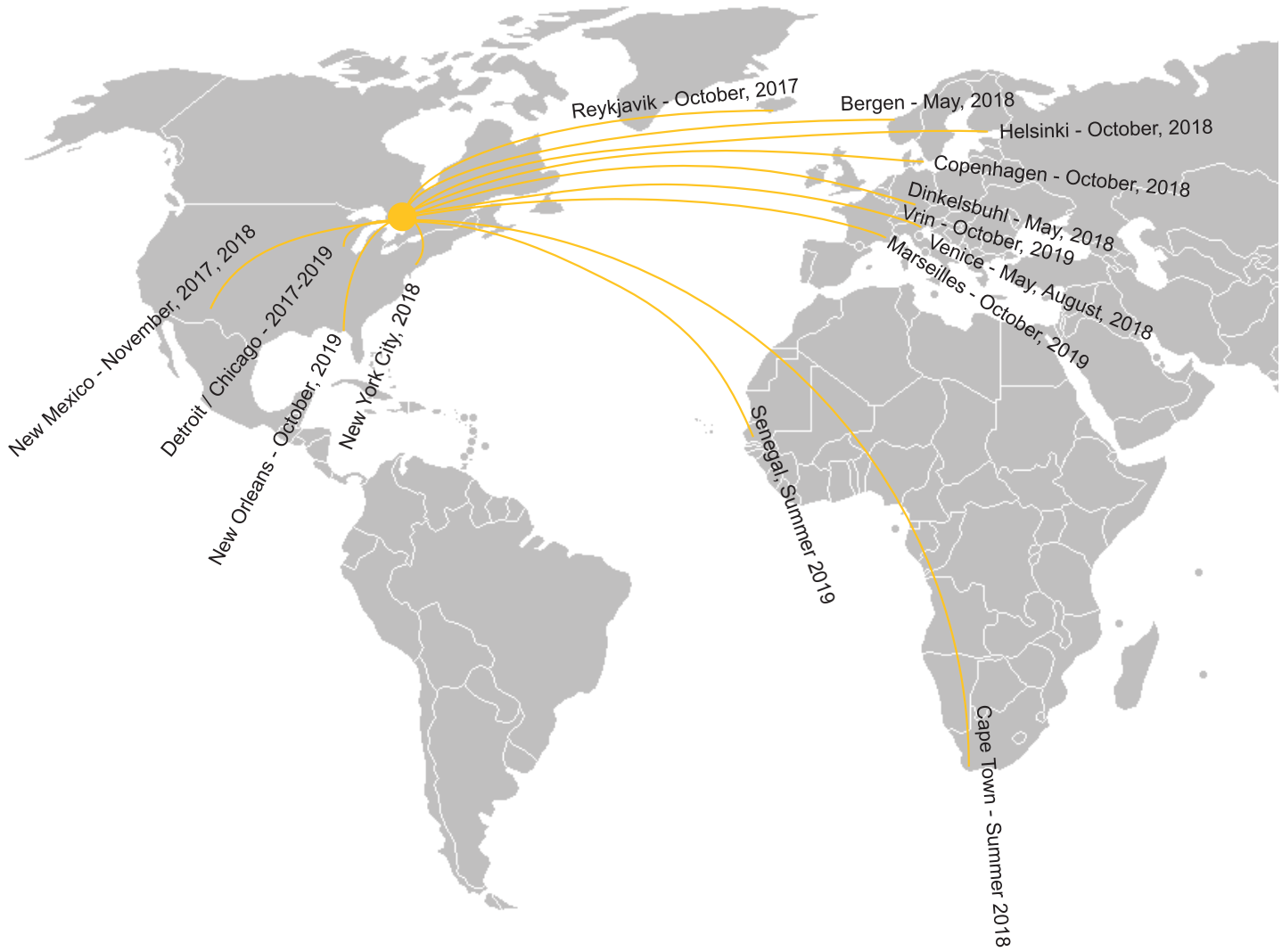
In the MArch Program, studios and seminars have traveled to the following since we began the Graduate Program in the fall of 2017: Albuquerque, New Orleans, Copenhagen, Helsinki, Reykjavik, Montréal, Marseilles, Dinkelsbuhl, Linz, and to remote northern communities in Ontario and Québec. To support our emphasis on student travel experiences in other places, the School Council unanimously voted to create $1,000 travel scholarships for each graduate student, funded through our McEwen gift endowment, as part of student enhancement.

Furthermore, the MSoA has supported other travel abroad programs during the summers for students, for example, design-build projects in Germany, and competing in the Bergen Wood Festival in Norway. While these activities do not currently offer students academic credit, the School strongly supports them as invaluable learning opportunities and students have maintained interest in participating in these summer programs since the School opened in 2013. A similar opportunity had been planned in South Korea for 2020, prior to COVID-19 ceasing all travel. Opportunities such as this will be pursued in future years.

When students participate in MSoA field-trips, they must sign an LU travel waiver and various other forms provided by the Procurement, Contract and Risk Office, a copy of which is kept on D2L for future reference.

The following pages illustrate the extent of our International and Regional Outeach initiatives. The mapped locations are only those where at least one student travelled for academic purposes. The vast majority of the trips mapped were related to Design Studio and core course field trips, but a few involved research with a smaller number of students.

3.4 Student Composition, Well-Being, and Enrichment



MSoA International Outreach 2017-2020

MSoA Regional Outreach 2015-2020

3.4 Student Composition, Well-Being, and Enrichment

3.4.5 Student Professional Societies and other Campus-Wide Activities

> *The APR must include:*
> *• evidence of opportunities to participate in student professional societies, honours societies, and other campus-wide student activities;*

From the student perspective, every student pays dues to be a member of the LU student societies, either English or French. These are the umbrella organizations. In addition, the McEwen School of Architecture supports the School's LASA (Laurentian Architecture Student Association) that is quite active in its membership. LASA represents a diverse range of perspectives across the BAS Program, increasingly hosting and sponsoring student events at the MSoA and in the downtown.

The LASA executive consists of a President, Vice-President, Secretary, Indigenous student representative, and Treasurer. Representatives of each year of the BAS Program and graduate MArch Program hold seats within LASA. Student concerns, feedback, and suggestions, from an individual, their academic year, or the student body at large, are channeled through this organization and are either brought to the Director, Program Coordinators, or the School Council directly. The newly ratified MSoA Constitution also emphasizes the importance of student participation at all levels of decision making within the School, with student representation on many standing committees and the School Council itself.

All MSoA students are also considered part of the larger student body, which is represented by the bilingual Laurentian University Students' General Association (SGA). The SGA opened a new purpose-built building at the heart of the main campus in 2019, which offers student information, support and resources related to topics such as transit, health, clubs and various events. Students also have access to the Ben Avery Campus Recreation Facilities, where they often participate in recreational activities with other students from across campus.

MSoA students also have the option of joining the association des étudiantes et étudiants francophones (AEF). The AEF represents the interests of Francophone students on campus. Its mandate is to enhance social, academic and cultural ties that unite, through the promotion of the French language, student engagement in a variety of Francophone activities and events, and political, academic and administrative representation. (see https://laurentian.ca/student-associations).

MSoA graduate students have the option of joining the Graduate Students Association (GSA). The GSA Board of Directors represents graduate students and usually consists of an executive and representatives from each department elected by the general membership. When questions relevant to graduate students arise, the University Administration consults the GSA as the body representing graduate students. (see https://laurentian.ca/student-associations).

Also available to MSoA students is membership in the Indigenous Students Circle (ISC), for students who are Indigenous or Indigenous-minded. The ISC works to support the academic endeavours of its members by promoting Indigenous culture and by supporting and developing opportunities for social and cultural interaction in the Laurentian community. An array of events are planned throughout the year including drum socials, traditional teachings with elders, brown-bag lunch lecture series, dinners and socials, and much more. A new radio show on Laurentian's CKLU 96.7 FM, hosted by ISC members, celebrates the talent of Indigenous artists, discusses the events and activities of the association and engages in dialogue about issues that affect Indigenous people at the local, regional and national levels. (see https://laurentian.ca/student-associations).

The MSoA also supports a student representative to sit on the Canadian Architecture Students' Association (CASA), which promotes our students networking with other schools across the country (see www.*casa-acea.org*). The CASA representative is funded by the MSoA to attend the annual conference, which changes locations around the country. In 2019-20, the MSoA worked with Professor Lisa Landrum of the University of Manitoba to have two students represent the School at the Canadian Architecture Forums on Education (CAFÉ) in Montréal, and one in Manitoba, as part of a SSHRC-funded grant to support dialogue around the development of a National Architecture Policy that is very topical at the moment.

3.4.6 Guest Lecturers and Visiting Critics

3.4.6.1 Guest Lecturers (2017 - 2020)

> *The APR must include:*
> *• a list of guest lecturers and visiting critics brought to the Program since the previous site visit;*

[FR] = Lecture in French

2017-18 MSoA Lecture Series

- Heather Dubbeldam (Dubbeldam Architecture + Design), Sep. 26
- Wanda Dalla Costa (Arizona State University), Nov. 9
- Olivier Lajeunesse-Travers (Microclimat), Jan. 31
- Miriam Cusson, Radha Chaddah, Patrick Harrop, Daniel Bédard, with Théâtre du Nouvel-Ontario, Feb. 15
- Jinny Yu (Ottawa University), Feb. 14
- Carole Lévesque (UQÀM), Feb. 26

2018-19 MSoA Lecture Series (sponsored by Tremco)

- Brigitte Shim (Shim-Sutcliffe Architects), Sep. 13
- Johanna Hurme (5468796 architecture), Oct. 18
- Guillaume Lévesque (Architecture sans frontière), Nov. 8 [FR]
- Kevin O'Brien (Kevin O'Brien Architects), Nov. 15
- Olivier Bourgeois & Régis Lechasseur (Bourgeois Lechasseur Architectes), Nov. 29 [FR]
- Gabrielle Nadeau (Bjarke Ingels Group), Jan. 17 [FR]
- Michael Sorensen (Henning Larsen Architects), Feb. 12 *CANCELLED*
- Chris Cornelius (Studio:Indigenous), Feb. 14 *CANCELLED*
- Stephan Chevalier & Sergio Morales (Chevalier Morales Architectes), Feb. 28 [FR]
- Ville Hara (Avanto Architects), Mar. 14
- Ted Kesik (University of Toronto), Mar. 21

2018-19 Other Guest Lectures

- Julien Mauduit (La Société Historique du Nouvel-Ontario), Oct. 17
- Katherine Kovalcik (University of Waterloo MArch. graduate), Jan. 30
- Daniela Moisa (Laurentian University), Mar. 22 [FR]
- Christian Bailey (ODA Architecture), Apr. 17

2019-20 Laurentian Architecture Lecture Series (sponsored by Tremco)

- Brian MacKay-Lyons (MacKay-Lyons Sweetapple Architects), Sep. 12
- Anssi Lassila (Office for Peripheral Architecture), Oct.
- Manon Asselin (Atelier TAG), Oct. 10 [FR]
- Chris Cornelius (Studio:Indigenous), Oct. 24 *CANCELLED*
- Jason McLennan (McLennan Design), Nov. 5
- Emmanuelle Van Rutten (Moriyama & Teshima Architects), [FR] Nov. 21
- Elsa Lam (Canadian Architect), Jan. 16
- Michael Sorensen (Henning Larsen Architects), Jan. 30
- Jinhee Park (Single Speed Design), Feb. 27 *CANCELLED due to COVID-19*
- Tammy Eagle Bull (Encompass Architects), Mar. 19 *CANCELLED due to COVID-19*
- Antoine Robert-Grandpierre (LOCALARCHITECTURE), Mar. 26 [FR] *CANCELLED due to COVID-19*

2019-20 Other Guest Lectures

- Graeme Bristol (Centre for Architecture & Human Rights), Sep. 17
- Suresh Perera & Julie Charbonneau (Studio PERCH), Nov. 19 [FR]
- Imen Ben Jemia (ERA Architects), Oct. 4 [FR]
- Jean-Bruno Morissette, Visiting Scholar, Nov. 1 [FR]
- Bechara Helal, Nov. 15
- Jonathan Kabumbe, Andrei Aranyi et Kai Wood Mah, with the Galerie du Nouvel Ontario, Feb. 28 [FR]

2019 - Building the Thesis Colloquium (Inaugural year)

- Morgan Wright (University of Waterloo MArch graduate)
- Pierre-Olivier Demeule (Université Laval MArch graduate)
- Sam McFaul (The University of British Columbia MArch graduate)

3.4 Student Composition, Well-Being, and Enrichment

Lecture by Architect and Founder of the Living Building Challenge, Jason McLennan, 2019

3.4.6.2 Visiting Critics (2017-2020)

The following list includes invited critics for academic years 2017-18, 2018-19, and 2019-2020, in both Design Studios and other Core Courses in the Program. Note that the MSoA has developed a tradition of having fellow colleagues critique in other year's Design Studios as well as inviting graduate students as critics to the BAS Program for design reviews. This would make our list of visitors to each studio much longer, so we have listed MSoA faculty critics and student critics selectively. Finally, not all core courses have invited guests.

Bachelor of Architectural Studies (BAS) Program

Arch 1505 - Studio 1 – Place 1

- Mark Baecher - Assistant Professor, MSoA
- Steven Beites - Assistant Professor, MSoA
- Ra'anaa Brown - MArch. student, MSoA
- Tammy Gaber - Associate Professor, MSoA
- Ian Hill - Architect, Critchley Hill Architecture Inc.
- Suleman Khan - MArch. student, MSoA
- Randall Kober - Master Lecturer, MSoA
- Benoît Lachapelle - MArch.student, MSoA
- Jacob Riehl - MArch. student, MSoA

ARCH 1515 - Studio 2 – Place 2

- Bechara Helal - Assistant Professor (Université de Montréal), Montréal
- Kat Kovalcik - Sessional instructor, MSoA
- Jacob Riehl - MArch. student, MSoA
- Geneviève Rousseau - Artist and designer, Montréal

ARCH 1006 - Design Thinking

- Amber Baechler - Sessional Lecturer, MSoA
- Sahana Dharmaraj - MArch. student, MSoA
- Henry Dyck - BAS. student, MSoA
- David Fortin - Director, MSoA
- Harrison Lane - BAS. student, MSoA
- Christian Pelletier - Studio 123, Sudbury
- Anastasia Renaud - MArch. student, MSoA

ARCH 1007 - Sacred Places

- Roberto Chiotti - Larkin Architects, Toronto
- Mark Baechler - Assistant Professor, MSoA

ARCH 2505 - Studio 3 - Landscape

- Daniel Barrette - Executive Director, Rainbow Routes Association, guest lecturer
- Peter Beckett - Ecology Professor, Living with Lakes Centre, Laurentian Univ., guest lecturer and critic
- Dennis Castellan – Architect and Founder 3rdLine Studio, guest critic
- Brigitte Desochers - Infrastructure Canada, Sessional Lecturer Carleton School of Arch., guest critic
- Émélie Desochers -Turgeon – Ph.D. Student, Carleton School of Architecture, guest critic
- John Gunn – Director, Living with the Lakes Centre, Laurentian University, guest critic
- Matt Hollands - Forester, Ministry of Natural Resources and Forestry, guest lecturer
- Stan Koren – Electronics Engineering Technologist, Laurentian University, guest lecturer and critic
- Tim Lehman - Forester, Ministry of Natural Resources and Forestry, guest lecturer
- David Lieberman - Associate Professor, Faculty of Architecture, Daniels University of Toronto, guest critic
- Michael Luubert - Developer - Desktop/Web, Esri Canada, guest lecturer
- Gregory Marinic – Associate Professor, University of Cincinnati, guest critic
- Alissa North – Associate Professor, Faculty of Landscape Architecture, Daniels UofToronto, guest critic
- David Pearson - Ecologist – Professor Living with Lakes Centre, Laurentian University, guest critic
- Julia Pegahmagabow – Indigenous Knowledge Carrier, MSoA, Laurentian University, Atikameksheng Anishnawbek, guest lecturer
- Art Petahtegoose – Indigenous Elder, MSoA, Laurentian University, Atikameksheng Anishnawbek, guest lecturer
- Anastasia Renaud - Intern Architect, Yallowega Belanger Salach Architecture, Sudbury, guest critic
- Val Rynnimeri - Associate Professor, Waterloo School of Architecture, guest critic
- Julie Vachon - Intern Architect, Centreline Architecture, Sudbury, guest critic
- Emmanuelle van Rutten - Principal Moriyama & Teshima, RAIC Dir. (Ont East/North+Nunavut, guest
- Joey-Lynn Wabie - Asst. Professor, School of Indigenous Relations, Laurentian University, guest lecturer
- Anne Watelet – Associate Professor, School of the Environment, Laurentian University, guest lecturer
- Sarah Woods - Wetlands and Stewardship Specialist, Laurentian Conservation, guest lecturer

ARCH 2515 - Studio 4 - Landscape 2

- Nadia Amoroso – Assistant Professor of Landscape Architecture – University of Guelph, guest critic
- Shannon Bassett, Assistant Professor MsoA, guest
- Catherine Bonier - Assistant Professor of Architecture – Carleton School of Architecture, guest critic
- Émélie Desochers -Turgeon – Ph.D. Student, Carleton School of Architecture, guest critic
- Aliki Economides, Assistant Professor, MSoA Faculty
- Jane Hutton – Asst. Prof. of Architecture/Landscape Arch,Waterloo School of Architecture, guest lecturer
- Jeff Laberge – Executive Director and Senior Architect, J.L. Richards and Assoc., Sudbury, guest lecturer
- Jenna Lamb – (graduate student guest critic)
- Eveline Lam – Intern Architect, Toronto, guest critic
- Rachel Loeffler - Principal, Landscape Architect at The Berkshire Design Group
- Gregory Marinic – Associate Professor, University of Cincinnati, guest critic
- Cormac Murray – Architectural Designer, Teeple Architects, Toronto , guest critic
- Alpa Nawre – Assistant Professor of Landscape Architecture, University of Florida, guest critic
- Anastasia Renaud – (graduate student guest critic)
- Graeme Spiers – Director, Elliot Lake Field Research Station, Laurentian University, guest lecturer
- Christopher Warner-Smith – (graduate student guest critic)

ARCH 2306 - Design for Climate Change

- Dr. Nathan Basiliko, Canada Research Chair, Living with Lakes (Laurentian University)
- Roch Belair - Architect and Sessional Instructor (MSoA)
- Al Douglas, Director of the Ontario Centre for Climate Impacts & Adaptation Resources, Sudbury
- Jeff Laberge, Architect, Sudbury
- Will Morin - MSoA Knowledge Carrier (University of Sudbury), Sudbury.
- Jerry Otowadjiwon - MS
- Dr. David Pearson, Professor, Living with Lakes (Laurentian University)
- Dr. Pascale Roy-Leveillee, Permafrost Scholar (Laurentian University)
- Cheryl Recollet, Wahnapitae First Nation
- Ted Wilson, Master Lecturer (MSoA)

ARCH 2316 - Structures 1: Wood

- Aaron Dent - A2S Associates Engineers, Sudbury

3.4 Student Composition, Well-Being, and Enrichment

ARCH 2326 - Architecture and Ecology

- Miranda Virtanen, Junction Creek Stewardship Committee
- Leo Lariviere, LU
- Pamela Nelson, OCAD
- Naomi Grant, Coalition for a Liveable Sudbury
- Craig England, Architect ph43
- Carole Levesque, UQAM
- Lara Rivera, Site
- Sarah Woods., Conservation Sudbury
- Steven Beities, MSoA
- Brad Parkes, LU
- Greenland International Consulting Engineers
- Art Petahtegoose, LU
- Pascale Roy-Léveillée
- Kat Kovalick, LU
- Shannon Bassette, LU
- Peter Rysers, LU
- Peter Beckett, LU

ARCH 3505 - Studio 5 - Northern Building 1

- Rosa Barone, Architect, JL Richards
- Dennis Castellan, Architect and Founder 3rdLine Studio
- Angele Dmytruk, Architect - 3rdLine Studio
- Aliki Economides, MSoA Faculty
- Tammy Gaber MSoA Faculty
- Tim James, Architect - Partner 3rdLine Studio
- David Lieberman, Associate Professor, Faculty of Architecture, Toronto

ARCH 3515 - Studio 6 - Northern Building 2

- Izabel Amaral, MSoA Faculty
- Dennis Castellan, Architect and Founder 3rdLine Studio
- Salim Filali, MSoA Faculty
- Ian Hill, Architect, Critchley Hill Architecture Inc.
- Jean-Bruno Morissette, Architecte, École d'architecture | Université Laval

ARCH 3306 - Well-Tempered Environment

Flour Mill Projects - Community Participants

- Councillor Joscelyne Landry-Altmann, Ward 12, City of Greater Sudbury
- Ed Archer, CAO, City of Greater Sudbury
- Jason Ferrigan, Director of Planning Services, City of Greater Sudbury
- Melissa Riou, Senior Planner, City of Greater Sudbury
- Jim Eshkawkogan, Aboriginal Educator, Better Beginnings Sudbury
- Carol Dodge, Director, Better Beginnings Sudbury
- Terry McMahon, President, Flour Mill Business Improvement Area
- Jeannine Larcher-Lalande, Flour Mill Neighbourhood Historian
- Jean-François Démoré, property owner of the "jelly beans" rowhouse, Laforest Avenue
- Daniel Boucher, Exploration Services, Member, Flour Mill Business Improvement Area
- Claude Charbonneau, Chair, Flour Mill Community Action Network
- Dave Doaoust, Owner/Operator, Sunbeam Meats, Laforest Avenue, Flour Mill Neighbourhood
- Cody, Owner/Operator, Get R Done Auto Body Repair, Laforest Avenue, Flour Mill Neighbourhood

ARCH 3017 - Writings in Architecture

- Celine Desaulniers, Centre for Academic Excellence (CAE), Laurentian University (guest lecturer)
- Joseph Hillel - Filmmaker, "City Dreamers," Montréal, Quebec
- Jennifer Johnson, Chair and Assoc. Prof., Dept. of Women's and Gender Studies, Thorneloe University
- Matthew Jull, Associate Professor, University of Virginia Architecture, Arctic Design Group
- Elsa Lam, Editor, Canadian Architect magazine
- Jennifer Ross (MSoA librarian guest lecturer)
- Mason White, Associate Professor, Daniels Faculty of Architecture, Univ.of Toronto, Partner Lateral Office

ARCH 4505 - Design Studio 7: Integrated Design

Fall 2019

- Manon Asselin, Founding Partner, Atelier TAG, Montréal
- Shannon Bassett (faculty guest lecturer)
- Steven Beites (faculty guest critic)
- Sinisha Brdar, Professeur, École de design, UQAM, Montréal
- Dennis Castellan, Architect and Artist, Sudbury
- Julie Charbonneau, Principal, Studio PERCH, Montréal
- Tammy Gaber (faculty guest critic)
- Geneviéve Guimont, Architecte fondatrice, Parka - Architecture & design, Québec
- Kat Kovalcik (sessional faculty guest critic) Dominika Linowska, Architect, SvN Architects & Planners, Toronto
- Adil Mansure (sessional faculty guest critic)
- Jean-Bruno Morissette (visiting faculty guest critic
- Ian Mountfort, Structural Engineer, Blackwell Engineers, Toronto
- Michael Mueller, Architect, Bisson Fortin Architecture + Design, Montréal
- Angela Perdue, Researcher, Art Gallery of Sudbury
- Suresh Perera, Principal, Studio PERCH, Montréal
- Jennifer Ross (MSoA librarian guest lecturer)
- Bruce Wrightsman (faculty guest critic)

Fall 2018

- Kemal Alladin (professional guest critic)
- Olivier Bourgeois (professional guest critic)
- Romy Brosseau (professional guest critic)
- Pat Danielson (professional guest critic)
- Alexandre Hamlyn (professional guest critic)
- Tim James (professional guest critic)
- Nathan Jensen (professional guest critic)
- Regis Lechasseur (professional guest critic)
- Camille Lefebvre (professional guest critic)
- Ian Mountfort (guest consultation structure engineer)
- Marco Vandermaas (professional guest critic)

F2017

- Kemal Alladin, Sessional Instructor (MSoA)
- Mark Baechler, Assistant Professor (MSoA)
- Amber Baechler, Sessional Instructor (MSoA)
- Chris Cornelius, Architect and Associate Professor (University of Wisconsin, Milwaukee)
- Tammy Gaber, Assistant Professor (MSoA)
- Ian Hill, Principal, Crichley Hill Architecture, North Bay
- Nathan Jensen, Principal, Mitchell Jensen Architects, North Bay
- Tony Mai, MArch Student (MSoA)
- Jim Searle, Operations Manager, Prime Real Estate Group, Sudbury
- Jacques White, Professor and Director, École d'architecture Université Laval
- Michelle Winkworth, MArch Student (MSoA)

ARCH 4515 - Design Studio 8: Integrated Design II

W2020

- Sinisha Brdar, Professeur, École de design, UQAM, Montréal
- Dennis Castellan, Architect and Artist, Sudbury
- Katy Chey, Lecturer, University of Toronto
- John Elliot, Structural Engineer, J.L.Richards,Ottawa
- Jeff Hunter, Mechanical, Engineer, SNC Lavalin, Sudbury
- Viktors Jaunkalns, Founding Partner, MJMA, Toronto
- Ted Kesik, Professor of Building Science, University of Toronto
- Tudor Radulescu, Principal, KANVA, Montréal
- Ted Watson, Partner, MJMA, Toronto

W2019

- Kemal Allain (professional guest critic)
- Christian Bailey (professional guest critic)
- Olivier Boucher (professional guest critic)
- Kate Bowman (professional guest critic)
- Pat Danielson (professional guest critic)
- John Elliot (guest consultation structure engineer)
- Jean-Sébastien Forest (professional guest critic)
- Jeff Hunter (guest consultation HVAC engineer)
- Tim James (professional guest critic)
- Nathan Jensen (professional guest critic)
- Michael Leckman (professional guest critic)
- Mathieu Turgeon (professional guest critic)
- Maxime Turgeon (professional guest critic)

W2018

- Brian Bertrand, Principal, Bertrand Wheeler Architecture, North Bay
- Marianne Charbonneau, Architect, ABCP Architectes, Quebec
- Richard de la Riva, Principal, Affleck de la Riva, Montréal
- Tammy Gaber, Assistant Professor (MSoA)
- Patrick Harrop, Associate Professor (MSoA)
- Ian Hill, Principal, Crichley Hill Architecture, North Bay
- Jeff Hunter, Mechanical Engineer, SNC Lavalin, Sudbury
- Timothy James, Architect Partner, 3rdLine Studio, Sudbury
- Nathan Jensen, Principal, Mitchell Jensen Architects, North Bay
- Ian Mountfort, Structural Engineer, Blackwell Engineers, Toronto
- Blaine Nicholls, Architect and Adjunct Faculty (MSoA), Sudbury
- Jim Searle, Operations Manager, Prime Real Estate Group, Sudbury
- Patrick Stewart, Architect and Adjunct Faculty (MSoA), Chilliwack, BC
- Ted Wilson, Master Lecturer (MSoA)

ARCH 4006 - Building Case Studies

- Steve Badgett, Artist, simparch, Chicago
- Ed Marszewski, Director, Co-prosperity cultural centre, Chicago
- Brent Norseman, Norseman Architects, Chicago
- Christine Tarkowski, Artist, School of the Art Institute of Chicago
- Docent, Frank Lloyd Wright Trust, Oak Park, Illinois
- Docent, Chicago Architecture Foundation

3.4 Student Composition, Well-Being, and Enrichment

ARCH 4306 - Digital Fabrication

- France Huot, Responsable des publics et de la médiation artistique, Théatre du Nouvel-Ontario
- Philippe Lessard-Drolet, Quebec, Quebec

ARCH 4526 EL - Architectural Communications

- Steven Beites, Assistant Professor (MSoA)
- Tammy Gaber, Associate Professor (MSoA)
- Jean-Philippe Saucier, Assistant Professor (MSoA)

ARCH 4016 - Cultural Sustainability

- Juliette Denis, Indigenous Knowledge Carrier, Sudbury
- Sonia Ekiyor-Katimi, MSoA Architecture Student and Artist, Sudbury
- Tammy Gaber, Associate Professor (MSoA)
- Jason McLennan, Principal, McLennan Design, Bainbridge Island, WA
- Christian Pelletier, Partner and Art Director, Studio 123, Sudbury
- Jean-Philippe Saucier, Assistant Professor (MSoA)
- Nicole Yantzi, Associate Professor, School of the Environment, Laurentian University

MASTER OF ARCHITECTURE (MArch) PROGRAM

ARCH 5505 - Architecture and Craft

F2017 (EL, Instructor: T.Gaber)

- Olafur Eliasson Studio team, Reykjavik
- Emilie Pinard - Assistant Professor, MSoA, guest critic
- Val Rynnimeri - Associate Professor, Waterloo School of Architecture, guest critic
- Jean-Philippe Saucier - Assistant Professor, MSoA, guest critic
- School of Architecture, Reykjavik

F2018 (EL, Instructor: M. Baechler)

- Eric Boelling, Architect, University of Toronto

F2018 (EL, Instructor: T.Gaber)

- Ville Hara, Avanto Architects, Helsinki
- JKMM architects, Helsinki
- Juha Leiviska, Architect, Helsinki
- OOPEAA architects, Helsinki
- Juhani Pallasmaa, Architect, Helsinki
- Emilie Pinard - Assistant Professor, MSoA, guest critic
- Val Rynnimeri - Associate Professor, Waterloo School of Architecture, guest critic
- Jean-Philippe Saucier - Assistant Professor, MSoA, guest critic
- Fred Thompson - Professor Emeritus, Waterloo School of Architecture, guest critic

F2019 (EL, Instructor: R. Kober)

- Ross Assinewe, Director Public Works, Sagamok Anishnawbek
- Roel Teunissen, Park Planner, Parks Ontario
- Zac Mollica, Architect, The Architecture Association, Hooke Park, Dorsett England
- Alan Toulouse, Historian, Sagamok Anishnawbek
- Will Kershaw, Senior Management Planner, Parks Ontario
- Gion Caminada, Architect, Vrin Switzerland
- Jorg Conzett, Structural Engineer, Conzett Bronzini, Chur Switzerland
- Veronika Muller, Academic Director √ºberholz, Voralberg Austria
- David Moses, Structural Engineer, Moses Structural Engineers, Toronto

ARCH 5515 - Community Building

F2019 (FL - Instructor: E. Pinard)

- Winnie Pitawanakwat, Indigenous Knowledge Carrier
- Nancy Etok, Deputy mayor and vice-principal Ulluriaq School, Kangiqsualujjuaq, Nunavik
- Ellasie Annanack, Coordinator Qarmaapik House, Kangiqsualujjuaq, Nunavik
- Marie-Pierre MacDonald, Principal Director, BC2 Architecture and Urbanism, Montréal
- Pierre-Olivier Demeule, M.Sc. Student, École d'architecture Université Laval, Québec
- Geneviève Vachon, Professor, École d'architecture Université Laval, Québec
- Eladia Smoke, Architect and Master Lecturer, MSoA
- Julien Landry, Intern Architect, Blouin Orzes Architectes, Montréal
- Alain Fournier, Principal, EVOQ Architecture, Montréal
- Emmanuelle Lauzier, Architect, EVOQ Architecture, Montréal
- Noémie Lavigne, MArch Student, MSoA

F2019 (EL - Instructor: K. Mah)

- Anne Attali, Parsons School of Design (in Paris)
- Aliki Economides, MSoA faculty
- Cecilia Chen, Smith Vigeant Architectes

- Mariana Esponda, Carleton
- Imen Ben Jemia, U de M
- Eveline Lam, U of Waterloo
- Jean-Bruno Morisette, U de M
- Thomas Strickland, MSoA

F2020 (EL - Instructor: K. Mah)

- Allison Glenn.,Crystal Bridges Museum
- Kempe Scanlan, Parsons
- Jayden Ali, Central St Martins
- Namrata Krishna, Hiveworks
- Teresa Lee, OCAD U
- Jinny Yu, U of Ottawa
- Lisa Norton, Parsons New School
- Jonas Voigt, Parsons New School
- Ellen Rothenberg, School of the Art Institute of Chicago
- Karma Dabaghi, Lebanese American University

F2018 (FL - Instructor: E. Pinard)

- Will Morin - MSoA Knowledge Carrier (University of Sudbury), Sudbury
- Robin Dupuis, Intern Architect and Sessional, MSoA
- Heidi Vachon, School director, Innu Takuaikan Uashat Mak Mani-Utenam
- Ingrid Tshirnish, School director, Innu Takuaikan Uashat Mak Mani-Utenam
- Denis Vollant, Elder, Innu Takuaikan Uashat Mak Mani-Utenam
- Guillaume Lévesque, Principal, Guillaume Levesque Architecte, Montréal
- Eladia Smoke, Principal Architect and Master Lecturer, MSoA
- Roch Belair, Principal Architect and Sessional, MSoA
- André Casault, École d'architecture Université Laval, Québec
- Aliki Economides, MSoA Faculty

ARCH 5525 - Indigenous Design

F2019 (EL - Instructor: D.Fortin)

- Marcel Labelle - Elder and Master Birchbark Canoe Builder, Mattawa, ON
- Del Ashkewe - Elder and Teacher, Hamilton, ON
- Douglas Cardinal - Elder and Architect, Ottawa, ON
- Christian Pelletier - Indigenous Birchbark Canoe Builder, Ottawa, ON
- Julia Pegahmagabow - MSoA Knowledge Carrier, Atikameksheng Anishnawbek
- Sage Petahtegoose - Indigenous Knowledge Carrier, Atikameksheng Anishnawbek
- Nokomis Jane Chartrand - Algonquin Elder, Ottawa,
- Will Morin - MSoA Knowledge Carrier (University of Sudbury), Sudbury
- Rob Spade - MSoA Knowledge Carrier, Sudbury
- Joshua Manitowabi, Ph.D. Student, Interdisciplinary Humanities, Brock University, St. Catherines, ON

F2018 (EL- Instructor: Jake Chakasim)

- Shannon Bassett, Assistant Professor MsoA, guest lecturer
- Jean-Pierre Chabot, Senior Development Officer/ MoCreebec Eeyoud
- Terrance Galvin, Professor, MSoA
- Ted Jojola, Regents' Professor, School of Architecture + Planning, University of New Mexico
- Juliet Rickard, Community Planning & Liaison Officer/ MoCreebec Eeyoud
- David Fortin, Faculty, MSoA

F2017 (EL, Instructor: D.Fortin)

- Harvey Bell - Director of Human Services (Batchewana First Nation).
- Keith Boisseneau - Healer (Batchewana First Nation)
- Jake Chakasim - Cree Designer and PhD Student (University of British Columbia)
- Chris Cornelius - Oneida Architect and Associate Professor (University of Wisconsin Milwaukee)
- Wanda Dalla Costa - Cree Architect and Associate Professor (Arizona State University)
- Ed Dubois - Capital Project Coordinator (Batchewana First Nation)
- Rodney Eli - Knowledge Carrier (Batchewana First Nation)
- Adele Madigan - Elder (Batchewana First Nation)
- Teala Nadjiwon - Director of Human Services (Batchewana First Nation)
- Carol Nadjiwon - Elder (Batchewana First Nation)
- Jon O'Toole - Manager of Infrastructure and Technology (Batchewana First Nation)
- Jerry Otowadjiwon - MSoA Elder
- Brian Porter - Oneida Architect (Two Row Architects), Oshwegan, ON
- Brad Robinson - Cultural Resource Coordinator, N'Swakamok Native Friendship Centre, Sudbury
- Eladia Smoke - Anishinaabe Architect and MAster Lecturer (MSoA)
- Patrick Stewart - Nisga'a Architect and Associate Professor (MSoA)

ARCH 5316 - Faculty Research Seminar

F2019 (EL - Instructor: S. Beites)

Matthias Helmreich, ETH Zurich, Switzerland
David Correa, University of Waterloo, ON

3.4 Student Composition, Well-Being, and Enrichment

F2019 - (A. Economides), Cartographic Epistemologies

- Léo Lariviére, Cartography Specialist & Library Assistant, J.N. Desmarais Library (Laurentian University)
- Joshua Manitowabi, Ph.D. Student, Interdisciplinary Humanities, Brock University, St. Catherines, ON

F2019 - (P. Harrop)

- Pamela Casey, Architecture Archivist, Avery Drawings and Archives, Avery Architectural and Fine Arts Library, Columbia University, New York, NY
- Steven Hillyer, Director, The Irwin S. Chanin School of Architecture Archive, The Cooper Union, New York, NY

F2018 - (A. Economides), Ornament in, and as Architecture

- Camille Lefebvre, Intern Architect, Saia Barbarese Topouzanov Architectes, Montréal
- Will Morin - MSoA Knowledge Carrier (University of Sudbury), Sudbury
- Dr. David Pearson, Professor, Living with Lakes (Laurentian University)

F2018 - (P. Harrop)

- Aimee Good, Director of Education and Community Programs, The Drawing Center, New York, NY
- Steven Hillyer, Director, The Irwin S. Chanin School of Architecture Archive, The Cooper Union, New York, NY

ARCH 5006 - Architectural Theory Seminar

- Shannon Bassett, Assistant Professor MsoA, guest critic
- Jean-Pierre Chupin - Full professor (Université de Montréal, École d'architecture), Montréal
- Carmela Cucuzzella - Associate professor (Concordia University, Design and Computational Arts)
- Aliki Economides, MSoA Faculty
- Dr. David Fortin, MSoA Faculty
- Dr. Terrance Galvin, MSoA Faculty
- Will Morin, MSoA Knowledge Carrier (University of Sudbury), Sudbury
- Francois Vaillancourt, Lecturer, University of Sudbury Philosophy Department

ARCH 5555 / 5565 - Thesis 1 & 2 (Design Studio) F2018 / W2019

Guest Reviewers
- Jake Chakasim (Architect, Sudbury, Vancouver), Thesis Studio 1
- Janine Debanne (Professor, Carleton University), Thesis Studio 2
- Angele Dmytruk (Architect, 3rdLine.Studio, Sudbury), Thesis Studio 1
- Toon Dreessen (Architect, Architects DCA, Ottawa), Thesis Studio 2
- Alissa North (Landscape Architect, University of Toronto), Thesis Studio 2
- Daniel Smith (Architect, Smith Vigeant Architectes, Montréal), Thesis Studio 1
- John Stephenson (Form Architecture Engineering, Thunder Bay), Thesis Studio 2

External Examiners
- Brian Bertrand (Architect, Bertrand, Wheeler Architects, North Bay), Thesis Studio 2
- Janna Levitt (Architect, Levitt, Goodman Architects, Toronto), Thesis Studio 2
- Brian Lilley (Professor, Dalhousie School of Architecture, Halifax), Thesis Studio 2

Guest Chair (MArch Exams)
- Dr. David Lesbarreres (Dean, Faculty of Grad Studies, Laurentian University)

Second Readers:
- Kemal Alladin (Architect, Sudbury)
- Harriet Burdett-Moulton (Architect, NB)
- Chris Cornelius (Professor/Architect, U Wisconsin)
- William Crumplin (Laurentian)
- Cindy Derrenbacker (Laurentian)
- David Pearson (Laurentian)
- Brent Roe (Laurentian)

F2019 / W2020

Guest Reviewers
- Kate Bowman (Architect, Centreline Architecture, Sudbury), Thesis Studio 1
- Janine Debanne (Professor, Carleton University, Ottawa), Thesis Studio 1
- Omar Gandhi (Architect, Omar Gandhi Architect, Toronto/Halifax), Thesis Studio 1
- Dr.Ted Krueger (Professor, Rensselaer Polytechnic, Troy, NY), Thesis Studio 1

External Examiners
- Dr. Anne Bordeleau (Director, University of Waterloo)
- Dr.Ted Krueger (Professor, Rensselaer Polytechnic, Troy, NY)

- Brian Lilley (Professor, Dalhousie University, Halifax)
- Carol Phillips (Architect, Moriyama and Teshima Architects, Toronto)

Second Readers

- Kemal Alladin (Apprentice, Sudbury)
- Roch Belair (Architect, Sudbury)
- Brett Buchanan (LU)
- Dennis Castellan (Architect, Sudbury)
- Jake Chakasim (UBC)
- Carmela Cucuzzella (Concordia)
- Elizabeth George (Architect, Toronto)
- Jane Hutton (Waterloo)
- Jennifer Johnson (LU)
- Carol Kauppi (LU)
- Kat Kovalcik (Intern, LU)
- Raili Lakanen (Sustainability, Sudbury)
- Deborah McGregor (Professor, York University, Toronto)
- Franco Pastore (Architect, Sault St Marie)
- Brian Porter (Architect, TwoRow Architects, Six Nations)
- Val Rynnimeri (Waterloo)
- Jean-Ambroise Vesac (UQAT, Québec)

3.4.6.3 Exhibitions at the MSoA

- Nuit Blanche 2017 (MSoA Phase 2 Grand Opening and exhibition), Jan. 19, 2017
- Walking with our Sisters (WWOS) Exhibition, Jan. 7-17, 2018
- Nuit Blanche 2018 (student-led event and exhibition), Jan. 27 2018
- McEwen book launch, *Building a Northern Design Culture* (Jan. 27 2018)
- SNOLAB Photowalk Exhibit, Oct. 9-26, 2018
- MArch Thesis Exhibition (shared by Canadian Schools of Architecture), Oct. 15-21, 2018
- Student Work Exhibition, Sep. 4-7, 2018
- Nuit Blanche 2019 (student-led event and exhibition), Jan. 26 2019
- Student Work Exhibition, Sep. 3-6, 2019
- Thesis Exhibition (2019 award-winning MSoA thesis), Oct. 1-31, 2019
- Groundscapes Exhibition (Jean-Bruno Morissette), Nov.1-29, 2019
- Nuit Blanche 2020 (student-led event and exhibition), Feb. 8, 2020
- Women in Design Exhibition (student-led exhibition), Mar.10-31, 2020

3.4.6.4 Library Programming at the MSoA Library

Lunch & Learn (2017-2018)

- September 20: Architecture Faculty & Staff Library orientation. [Cindy & Dorothy]
- September 21: Richelieu (decorative and specialty hardware) Products Overview.
- September 26: Best practices for using Art & Architecture Source, JSTOR and the Avery Index for architectural research. [Cindy].
- October 3: Finding and citing digital materials using *Chicago Manual of Style*, the preferred MSoA style [Cindy]
- October 20: Greater Sudbury Public Library, pop-up Library during first year studio. Students received an introduction to Library services and collections and signed up for library cards.
- October 24: Sudbury, Habitat for Humanity.
- October 20 & 27, November 3 & 10: French Fridays, Informal french conversation opportunity.
- January 17: Learn Ojibway through translated Architectural Walking Tour led by Elder Jerry Otowadjiwan.
- January 19 & 26, February 2 & 9: The library hosted several lunch hour Knitting & Architecture workshops. Profs and elders provided knitting instruction and made connections between this craft and the built environment. Students formed a knitting club, and met weekly during the lunch hour on Fridays in the Architecture Library, lounge.
- February 2: Ancient patterns within the Ojibway language, relating to all forms of nature, art and architecture with Knowledge Keeper Will Morin.
- February 14: Come and get to know the life and architectural practice of MSoA Prof. Eladia Smoke.
- March 1: One School, One Book discussion of Thomas King's *The Inconvenient Indian*.
- March 8: Live Roof Ontario. Kees Grover.

MSoA Library Exhibitions

- September: Richelieu product samples and information binders were displayed to promote the library, Materials Collection and in support of product overview presentation.
- October/November: In conjunction with the French Fridays, events, books featuring the work of French architects or the architecture in France and Quebec were exhibited.
- November/December: The annual Gingerbread Design-Build Competition took place at the end of November and voting the first week of December. See our Instagram page to view submissions.
- December: The book *Habitat: Vernacular*

Architecture for a Changing Planet (Thames & Hudson, 2017) was displayed. It features a chapter by Prof. Tammy Gaber about Troglodyte and Timber Dwellings of Turkey.

- January: Book exhibit highlighting Native American Architecture was created in support of the Ojibway architectural walking tour.
- January/February: The library created a Knitting & Architecture display of books and articles related to knitted architecture/structures, fabrics, textiles, and yarn bombing.
- February: An exhibit of books about Chicago and it's architecture were displayed in support of student travel.
- February/March: One School, One Book - Display of Thomas King's *The Inconvenient Indian / L'indien malcommode*
- March:
  - Display of wood, wood architecture and wood products in support of Laurentian's Research Week and the School of Architecture's Work on Wood Symposium.
  - Book exhibit - International Women's Day / Journée internationale des femmes
  - Display of green walls and green roof books in support of the LiveRoof presentation, including information and samples from the Materials Collection.
- May:
  - Rainbow Routes Association hosts an annual walk inspired by urban activist Jane Jacobs, exploring Downtown Sudbury and nearby neighbourhoods. A display of books by or about Jane Jacobs was created to promote the event and the library's recent acquisition of the DVD, *Citizen Jane: Battle for the City*, directed by Matt Tyrmauer.
  - Indigenous students and faculty members from the McEwen School of Architecture represented Canada at the 2018 Venice Architecture Biennale (May 26-November 25) and showcased the exhibit UNCEDED: Voices of the Land. In conjunction with this event, the library created an exhibit of books featuring Native American and Indigenous architecture.
  - In support of the McEwen School of Architecture Lecture Series, the library created book displays featuring the work or publications of the following guest lecturers and/or their architecture firms:
    - Heather Dubbeldam (Dubbeldam Architecture + Design)
    - Wanda Dalla Costa (Arizona State University)
    - Olivier Lajeunesse-Travers (Microclimat)

Lunch & Learn (2018-2019)

- September 14: French Fridays.
- September 19: Architecture Faculty, Staff, and Graduate Student Library Orientation. [Cindy & Dorothy]
- September 25: Best practices for using Art & Architecture Source, JSTOR and the Avery Index for architectural research. [Cindy].
- September 26: Learning about Architecture by Tracing Drawings of Great Architects, Prof. Kai Wood Mah.
- October 1: Motivation Mondays - MArch Thesis Writing Group. This full day writing workshop included a lunch hour presentation by Prof. Shannon Bassett.
- October 29: Motivation Mondays - MArch Thesis Writing Group. This full day writing workshop included a lunch hour presentation by Prof. Emilie Pinard.
- October 2: Quick overview to citing materials using the Chicago Manual of Style, the preferred MSoA style. [Cindy]
- October 4: Richelieu Product Overview.
- October 5: French Fridays.
- October 16: Sketching Imagination, workshop by Prof. Mark Baechler.
- October 19: Greater Sudbury Public Library, pop-up Library during first year studio. Students received an introduction to Library services and collections and signed up for library cards.
- October 24: Learn more about gender equality in architecture through the Glass Ceiling Installation, presented by MArch student Marina Schwellnus and Prof. Thomas Strickland.
- November 1: Traditional rag rug making demonstration and instruction with Juliette Denis.
- November 6: Nordic Structures Product Overview.
- November 19: Motivation Mondays - MArch Thesis Writing Group. This full day writing workshop included a lunch hour presentation by Prof. Jennifer Harvey.
- November 26: Motivation Mondays - MArch Thesis Writing Group. This full day writing workshop included a lunch hour presentation by Prof. Odile Hénault.
- February 12: One School, One Book discussion of Umberto Eco, *The Name of the Rose* led by Prof. Tammy Gaber
- The library continued to host the knitting club on Fridays during the lunch hour in the lounge. Guest elders provided knitting instruction.

MSoA Library Exhibitions

- Architecture Writing Sources - Books related to writing about art and architecture, literature reviews and dissertations were displayed in the library in support of the graduate students and the development of their theses.
- October: MArch Thesis Exhibit on display in the architecture library included hardcopy theses (Laval, Waterloo), related design posters, the titles and abstracts of recommended theses (Carleton), and useful architecture writing sources.
- November: Nordic Structures wood samples and information booklets were displayed to promote the library, Materials Collection and in support of product overview presentation.
- November/December: The annual Gingerbread Design-Build Competition took place at the end of November and voting the first week of December. See our Instagram page to view submissions.
- January: Literary Source exhibition - A collection of booklets from ARCH 4526 Architectural Communication were displayed in the Architecture Library. These booklets featured the design and architectural drawings of literary spaces.
- January/February: One School, One Book - Display of Umberto Eco's *The Name of the Rose / Le nom de la rose*
- February: Chicago and Montréal architecture books were displayed in support of student travel.
- February: The Sudbury Watershed Project - The Architecture Library displayed various books, maps, and air photo mosaics relevant to The Sudbury Watershed Project for the Architecture & Ecology course.
- March: International Women's Day / Journée internationale des femmes.
- April: Book Exhibit - Words of Architectural Theory: Volume 1 was displayed in the Architecture Library. This book was produced by our charter class for the course Architectural Theory Seminar, taught by Professor Izabel Amaral during the Fall of 2018.
- April: Art Exhibition of the 100 NOTEBOOK PROJECT. This collection of notebooks encompassed the creative minds and daily lives of architecture students and faculty members and featured the beautiful artwork, thoughts, and day-to-day musings.
- In support of the McEwen School of Architecture Lecture Series, the library created book displays featuring the work or publications of the following guest lecturers and/or their architecture firms:
  - Brigitte Shim (Shim-Sutcliffe Architects)
  - Johanna Hurme (5468796 architecture)
  - Guillaume Lévesque (Architecture sans frontières)
  - Kevin O'Brien (Kevin O'Brien Architects)
  - Olivier Bourges & Regis Lechasseur (Bourgeois Lechasseur Architectes)
  - Gabrielle Nadeau (Bjarke Ingels Group)
  - Michael Sorensen (Henning Larsen Architects)
  - Stephan Chevalier & Sergio Morales (Chevalier Morales Architectes)
  - Ville Hara (Avanto Architects)
  - Ted Kesik (University of Toronto)

Lunch & Learn (2019-2020)

- September 10: Architecture Faculty, Staff, and Graduate Student Library Orientation. [Jennifer & Dorothy]
- September 17: "What then must we do? Our actions in the profession". Graeme Bristol, Executive Director, Center for Architecture & Human Rights.
- September 20: Vendredi Francophone: Architecture faculty members cooked crêpes on the Library Bridge. Roughly 40 students were fed lunch.
- September 26: Best practices for using Architectural databases. [Jennifer]
- September 26: Pratiques exemplaires pour les recherches en architecture dans les bases de données architecturales. [Jennifer]
- October 3: A quick overview to citing materials using the Chicago Manual of Style, the preferred MSoA style. [Jennifer]
- October 3: Un apercu de la manière de citer les sources selon le *Chicago Manual of Style*. [Jennifer]
- October 4: Montréal, vue par ses murales. Imen Ben Jamia as part of Vendredi francophone.
- October 8: hosted the Greater Sudbury Public Library's pop-up Library during first year studio. Students received an introduction to Library services and collections and signed up for library cards.
- October 22: Salex Lighting Overview, Paul Hudson, Principal.
- November 5 & 14: Introduction to Zotero [Jennifer]
- November 13: Sound Solutions, Ventilated Facades - Rainscreen Materials. Annette Lindy.
- November 28: Magical Paws Pet Therapy was hosted during lunch hour in the crit pit.
- January 15: Design Thesis Project Presentation: Ndonjiba [this is where I'm from]: Ojibway Healing + Architecture by Julia DeFelice, local Architect.
- January 29 & February 28: the Library hosted meditation sessions organized by LU Professional Development. There were sessions scheduled in March and April that were cancelled due to COVID-19.
- February 27: The 400-year evolution of western Black History, lecture by Ra'anaa Brown, Graduate Student.

- March 10: One School, One Book discussion led by Professor Tammy Gaber. This year, book was *Invisible Cities* by Italo Calvino.
- March 27: Magical Paws Pet Therapy was scheduled but was cancelled due to COVID-19.

MSoA Library Exhibitions

- September: Display in support of the Wood Educators Conference.
- October: Thesis Exhibition showcasing all of the 2019 award-winning MSoA MArch graduate thesis projects. The booklets and the thesis summary posters were on display in the Library.
- November/December: The annual Gingerbread Design-Build Competition took place at the end of November and voting the first week of December. See our Instagram page to view submissions.
- January: Literary Source exhibition. The collection of booklets from ARCH 4526 Architectural Communication were displayed. These booklets feature the design and architectural drawings of literary spaces.
- January: Faculty publication exhibition organized by the Library as part of the book launch for *Canadian Modern Architecture, 1967 to the present*.
- January: Montréal architecture book display
- February:
  - Display in support of Black History Month. Curated with the assistance of Ra'anaa Brown.
  - Toronto and Chicago themed displays of books in support of student travel.
  - City Dreamers - The McEwen School of Architecture hosted a screening of the film *City Dreamers*. The film is about our changing urban environment and four trailblazing women architects - Phyllis Lambert, Denise Scott Brown, Cornelia Hahn Oberlander and Blanche Lemco Van Ginkel. The library created a small exhibit featuring a few of their projects and publications.
- March:
  - To promote the One School One Book initiative, the library created a book display with a few Architectural Communication booklets created by 4th year students, inspired by the literary spaces within Invisible Cities along with several books on Venice and Venetian architecture.
  - Book exhibit: International Women's day, highlighting inspirational women in architecture and design.
  - Francophonie Month - Book exhibit celebrating famous French architects.
- In support of the McEwen School of Architecture's Lecture Series, the library created book displays featuring the work or publications of the following guest lecturers and/or their architecture firms:
  - Brian MacKay-Lyons (MacKay-Lyons Sweetapple Architects)
  - Anssi Lassila (Office for Peripheral Architecture)
  - Manon Asselin (Atelier TAG)
  - Jason McLennan (McLennan Design)
  - Emmanuelle Van Rutten (Moriyama & Teshima Architects)
  - Elsa Lam (Canadian Architect)
  - Michael Sorensen (Henning Larsen Architects)

3.4.7 Student Support Services

All MSoA students benefit from a robust set of student services from Laurentian University, as well as satellite services in our downtown campus. Services for MSoA students include the following:

Health and Wellness

The Health and Wellness Services at LU offers primary healthcare, health promotion and protection, disease and injury prevention advice, as well as emotional counselling. The centre includes a Registered Nurse and a Nurse Practitioner on staff during regular office hours and a physician and a psychiatrist are available by appointment. Additional services are available for Personal Training, Strength and Conditioning, Physiotherapy/Kinesiology, and Massage Therapy.

However, between demand on campus and being removed from the downtown there has been a growing need for select student services (i.e. mental health aid) to take place at the downtown location. Thus, in 2019-20 we initiated a trial position of a Student Success Coach, who the School contracted to help identify and support students with special needs. This included various extracurricular activities such as floor hockey in the Crit Pit. This has now turned into a part-time LU counsellor on site for student support, one day a week. We are currently monitoring the student needs for such counseling to ensure the counselor adjusts her schedule accordingly. In 2019 we also had our first Pet Therapy session, organized through our library with student assistance that was well attended by both students and faculty. Our front office staff have also let students know that our one flexible office (shared by the counsellor and the CAE) is also a safe space for prayer as one of our students requested a quiet space in the building for worship. We have other offices marked as Safe Spaces in the building.

The Centre for Academic Excellence (CAE) is another LU campus initiative that assists students in a variety of workshops and individual sessions. The School of Architecture has had a direct connection with a staff person at the CAE each year since it opened in 2013.

Students have access to the Ben Avery Campus Recreation facility which has an olympic size pool,

multiple basketball/volleyball courts, squash courts, an outdoor field, track and tennis courts, and the 7 km long Laurentian Trail system which also maintains trails for snowshoeing and skiing during winter months.

Due to our downtown location, in 2020 School Council approved to support a proposal from the Downtown Sudbury YMCA to offer students a 50% discount on monthly fees and waiving the registration fee, as well as a free personal trainer. There have also been organized yoga sessions in the building that were attended by students and staff.

The LU SGA/AGÉ also has a Food Bank that acts as an emergency food access point for students and their families. As with most food banks, it is designed to be a good source of supplement to get through times of need. Students are invited to use the Food Bank twice per semester. Pre-made care packages are available at the V-Desk. This service is free for students across campus, from any association. Staff at the MSoA have facilitated a smaller version of this initiative at the downtown location.

Accommodation Services

The University has a dedicated Accommodation Services Office who support students with many types of disabilities so they can participate in all aspects of their academic experience at Laurentian University. There is a LU Policy on Accommodations for Students with Disabilities located on the University policies webpage (https://laurentian.ca/policies-accountability/policies). There is also a Guidelines for Academic Accommodation for Students with Disabilities which outlines the role of the LU Accessibility Office described as follows:

> 2.1. The University has an Accessibility Services Office to assist students with academic accommodations. The role of this office is to:
>
> 2.1.1. Receive and review the student's disability-related documentation on a confidential basis;
>
> 2.1.2. Verify the student's disability on behalf of Laurentian University;
>
> 2.1.3. Determine, with the student, based on the documentation provided whether accommodations are required and, if so, what accommodations would be effective;
>
> 2.1.4. Adjust accommodations as needed; and
>
> 2.1.5. Act as a resource for faculty in assisting with the implementation of accommodations in the classroom, for practicums, labs, online courses, graduate programs, and with respect to multiple forms of assessment.

The MSoA continues to work closely with the Accessibility Office to ensure all of our students' needs are addressed.

Academic Advising and Support

The Centre for Academic Excellence (CAE) - The CAE is a centralized service provided to all LU students to assist them in their transition to university, and to support their continued success. The CAE offers specific courses to build confidence in writing, study, numeracy and research skills, as well as a course to prepare students for teaching in universities. The CAE offers writing assistance for all LU students and many MSoA students are encouraged to use these services to assist with their academic writing. There also Learning Assistance programs with a focus on the following areas:

* Online Resources
* Excellence in Learning
* Study Skills Coaching
* Tutor Directory
* Tutor Training
* Workshops

Students can also meet one-on-one with a study skills coach to privately go over academic strengths and areas of improvement:

* Critical Thinking
* Exam Preparation
* Note Taking
* Reading
* Study Skills
* Time Management

Lastly, the CAE also offers academic advising, particularly in the following areas:

* Academic Advantage (Introduction to University Studies, Early Warning, Probation Program)
* Degree & Career Exploration
* First Year Student Advising
* International Student Advising
* Transfer Students
* Voyageur Advantage (for student athletes)

The CAE also sets up a pop-up desk at our Downtown campus location to raise awareness of their services amongst our students.

Within the MSoA, academic advising is provided by the Program Coordinators, usually including consultation from the Director. Given the specific nature of our degree programs, the School finds this to be most effective. The School's administrative team works closely with the Registrar and Dean's office to ensure students are guided through their programs. Program coordinators also track any students who may be on probation or who have a personalized degree trajectory to ensure they meet the Program requirements.

3.4 Student Composition, Well-Being, and Enrichment

Career Guidance and Co-op Placements

Career guidance is primarily provided by the MSoA Program Coordinators, faculty members, and the Director. Given that we have multiple faculty members who are also registered architects, we feel this system to be the most effective for those students who remain interested in pursuing a professional architectural career.

The MSoA also has only one dedicated staff person in the role of Co-op Coordinator who is responsible for administering and coordinating communication between students, employers, and faculty, throughout the Co-op placement process. The MSoA Co-op Coordinator is also responsible for meeting with students throughout the academic year to review their expectations during the application and hiring process, and works with designated faculty members to provide assistance with portfolio and resume preparation. The MSoA Co-op Program is thus the most effective means to offer career guidance as students also eventually gain exposure to, and benefit from, external architects, designers, and professionals from other industry-related fields, who help educate students about the industry.

Teaching and Research Assistant Opportunities

The MSoA currently receives a total of 10 FTE Graduate Teaching Assistantships (GTAs) as administered through the Faculty of Graduate Studies (FGS), for each year of the MArch Program. These GTA positions are assigned by the Graduate Coordinator to students to support various courses throughout the Program, in consultation with the course instructors. The GTA positions are offered to the top performing students for each incoming MArch cohort, either as Full GTAs or Half GTAs. Laurentian University GTA positions paid students $9,058 during the 2019-20 academic year, and students can typically maintain them for both years of the MArch Program (for a total of $18,116). We have also had a significant number of our students hired by faculty members as summer Research Assistants as part of their grant-funded programs. Research assistantships currently depend solely on such faculty-led initiatives.

In all of the above services and opportunities, including Academic Advising, the Director is the contact person for students within the School of Architecture. The Director works directly with the Program Coordinators and the Administrative Assistants in these matters. In short, the University provides ample opportunity and support for student growth, both within and outside of the academic unit, in pursuit of their full potential as students and future practitioners.

3.5 Faculty and Staff Resources

The Program must demonstrate that it provides adequate human resources for a professional degree program in architecture, including a sufficient complement of appropriately qualified faculty, administrative, and support staff, and an administrative head that devotes no less than fifty percent of his or her time to program administration. Student enrollment and the scheduling of Design Studios must assure adequate time for an effective tutorial exchange between faculty members and students. The student/faculty ratio in the studio should be between 12:1 and 15:1, with 15:1 as the maximum. The total teaching load should allow faculty members adequate time to pursue supervision, research, scholarship, and/ or practice. The Program must have a clear policy outlining both individual and collective opportunities for faculty and staff growth within and outside the Program.

3.5.1 Full-Time Faculty and Sessional Roster

The APR must include:
• a description and tabulation of the academic and professional qualifications of faculty, as well as a description of the distribution of effort between teaching and the other responsibilities of each faculty member.

The MSoA Program has had a very clear intention of balancing the professional Program as a whole, with research academics and registered architects who are highly qualified to teach building code issues, submit working drawings for building permits, and who remain current in the Program through their own professional practice experience. The strategy to maintain a balance between practitioners and more theory-based academics is appropriate in order to achieve our Program's main objectives, given the nature of a design-build and Co-op Program that is educating young professionals. The same holds true for the Professional Practice stream where the Co-operative education terms emphasize the role of the practitioner. The balance between registered architects, theory-based academics and those who hold both credentials is intentional. It allows us to deliver: 1) a design-build curriculum with a focus on hands-on learning, and 2) a Co-operative education model that focuses on integrated learning, bridging classroom learning with practical experience in the field.

This balance is reflected in our current faculty composition with 8 full-time faculty members holding a doctorate while 8 are licensed architects (7 in Canada, 1 in the USA). In keeping with the School's intention of bridging theory and practice in Architecture throughout the professional program, it is worth noting that 2 faculty members hold a doctorate as well as remain professionally licensed in a particular province. To support the MSoA's overall strategy it must be underscored that the "terminal degree" in the discipline of Architecture is the Master of Architecture (first-professional degree), and not the PhD.

Among our 16 FTE, 4 professors hold the title Master Lecturer, a position at LU that allows them primarily to teach - up to 24 credits per year - but they are not expected to conduct research or take on administrative duties.

Finally, and in accordance with CACB Condition 3.5 for all Schools of Architecture: "***A maximum student/faculty ratio between 12:1 and 15:1 is considered acceptable***." Our Program intends to maintain a 14:1 student/faculty ratio in our undergraduate Design Studios; hence we initially planned for a class of 70 students entering first year, typically divided into 5 sections, with each faculty teaching 14 students (4 sections in English and 1 section in French). In response to our attrition rates, we have slightly exceeded this ratio in first-year (up to 75 maximum students and 15 per section), and will continue to monitor our retention rates as we approach our targeted full complement of 400 students (combined BAS and MArch).

Full-time Architecture Faculty

The MSoA has 17 faculty for a 16 FTE.
(For more information, please see Section 4.4 for Full-Time Faculty and Sessional (with Establishment) Resumes.)

Amaral, Izabel (Assistant Professor)
MArch (prof.), Université Fédérale du Rio Grande do Norte, Brazil; PhD, Université de Montréal
Areas of expertise: Design and theory, Professional Practice, Competitions

Baechler, Mark (Assistant Professor)
MArch (prof.), Carleton U., OAA
Areas of expertise: Design, Construction, Representation, Professional Practice

Bassett, Shannon (Assistant Professor)
BArch (dist.), Carleton; MArch (Urban Design), Harvard
Areas of expertise: Design, Urban Design, Landscape Design

Beites, Steven (Assistant Professor, Graduate Coordinator)
MArch (prof.), U. Toronto; MSc, U. Michigan
Areas of expertise: Design, Digital Making, Robotics, Representation

3.5 Faculty and Staff Resources

Economides, Aliki (Assistant Professor)
BArch (prof.), U. Toronto; MArch (post prof.), McGill; M.A., Harvard; Ph.D, Harvard
Areas of expertise: Design, History/Theory of Architecture

Fortin, David (Assoc. Professor & Director) - 50% FTE
BA (Psych.), U. Sask.; MArch (prof.), U. Calgary; PhD (U. Edinburgh), OAA, SAA, MAA, AAA, LEED A.P.
Areas of expertise: Design, Métis Culture, Indigenous Design, Film, Speculative Design

Gaber, Tammy (Associate Professor)
BArch (prof.), U. Waterloo; M.Sc. & PhD (Cairo U.)
Areas of expertise: Design, Representation, Geometry, Islamic Architecture, Cosmologies

Galvin, Terrance (Professor & Founding Director)
MArch (prof.), TUNS; MArch (post-prof.), McGill; PhD (UPenn)
Areas of expertise: Design, Histories & Theory of Architecture, Architectural Education, Can. Architecture

Harrop, Patrick (Associate Professor)
BArch (prof.), Carleton U; MArch (post-prof.), McGill, MOAQ
Areas of expertise: Design, Representation, Digital Art, Fabrication

Kober, Randall (Master Lecturer)
BA (History), U. Wisconsin; MArch (prof.), U. Illinois
Areas of expertise: Wood Design, Construction, Representation

Mah, Kai Wood (Associate Professor)
BArch (prof.), MA & PhD (McGill), MOAQ
Areas of expertise: Design, Socio-Cultural Theories, Play (Childhood), Ecological Thinking

Pinard, Émilie (Assistant Professor and UNESCO Chair)
MArch (prof.), M.Sc., Laval U.; PhD, Laval U.
Areas of expertise: Design, Community Design Process, People-Environment Studies, Housing

Saucier, Jean-Philippe (Master Lecturer, Undergraduate Coordinator)
MArch (prof.), U. Laval, MOAQ
Areas of expertise: Design, Building Envelope, Sustainable Design, Lighting, Art

Smoke, Eladia (Master Lecturer) - 50% FTE
MArch (prof.), U. Manitoba, OAA, LEED AP
Areas of expertise: Design, Indigenous Architecture, Professional Practice

Strickland, Thomas (Assistant Professor)
MArch (prof.), TUNS; PhD (McGill)
Areas of expertise: Design, Healthcare Design, Design Activism, Participatory Design, Art Installations

Wilson, Ted (Master Lecturer)
BArch (prof.), U. Waterloo, OAA, LEED AP
Areas of expertise: Design, Construction, Sustainable Building Technology, Professional Practice

Wrightsman, Bruce (Assistant Professor)
BArch (prof.), Kansas State; MArch (post-prof.), U. Texas at Austin; AIA
Areas of Expertise: Design, Structures, Design-Build

Architecture Librarian (Interim)

Ross, Jennifer
BA, Laurentian; MA (Classics), McMaster; MLIS, Western
Areas of expertise: Library Science, Collections, Research Methods

Part-Time Architecture Faculty (2019-20)

Alladin, Kemal (Sessional Instructor with Establishment)
BAS, U. Waterloo; MArch (prof.), U. Waterloo
Areas of expertise: Design, Architectural representation

Beites, Kristin (Sessional Instructor)
BED, U. Manitoba; MArch (prof.), U. Toronto, OAA
Areas of expertise: Design, Theory, Visual Communication, Professional Practice

Belair, Roch (Sessional Instructor with Establishment)
BArch (prof.), Carleton U., OAA
Areas of expertise: Design, Construction, Northern Building, Professional Practice

Baechler, Amber (Sessional Instructor with Establishment)
MArch (prof.), Carleton U., OAA
Areas of expertise: Design, Representation

Filali, Salim (Sessional Instructor)
BArch, U. Montréal; MArch (prof.), U. Waterloo
Areas of expertise: Design

Harvey, Jennifer (Sessional Instructor with Establishment)
BLA (prof.), U. Guelph; MA student (LU), OALA, CSLA
Areas of expertise: Landscape Design, Ecology, Site Planning

Kovalcik, Kat (Sessional Instructor)
BAS, U. Waterloo; MArch, U. Waterloo
Areas of expertise: Design, Northern Design topics

Mansure, Adil (Sessional Instructor)
BArch, Mumbai U.; MArch (post prof.), Yale; MPhil (Architecture and Urban Studies), Cambridge
Areas of expertise: Design, Representation, Baroque Design Theory

Mitchelmore, Aidan (Sessional Instructor)
BAS, U. Waterloo; MArch, U. Waterloo
Areas of expertise: Design

Morissette, Jean-Bruno (Sessional Instructor)
B.Sc.Arch, Laval; MArch (prof.), Laval; M.Sc (Architectural Science), Laval
Areas of expertise: Design, Landscape design

Rutherford, Christian (Sessional Instructor)
BArch (dist.), Carleton U; MArch (prof.) U. Toronto
Areas of expertise: Comprehensive Design, Visualization, Residential Design

Adjunct Professors (Non-Teaching)

Nicholls, Blaine
(5 yrs. ended December 2019)
BArch (prof.), U. Waterloo, OAA (retired), FRAIC

Rivers, Patrick Lynn
(2 yrs. ended December 2019)
PhD, U. North Carolina (Chapel Hill), Political Scientist

Iuugigyoo, Patrick Stewart
(5 yrs. ending December 2022)
BArch (prof.), TUNS; MArch (post-prof.), McGill; PhD (UBC); AIBC, LEED AP. Areas of expertise: Design, Indigenous Architecture, Theory, Professional Practice

3.5.2 Distribution of Responsibilities and Workload

> *The APR must include:*
> *• a description of the distribution of effort between administration and other responsibilities for each position;*

All Laurentian full-time tenure-track faculty (FTE) have a 40:40:20 workload: 40% devoted to teaching, 40% devoted to research, and 20% devoted to administration (both internal to the academic unit and to the University). Full-time MSoA faculty teach 15 credits per year (2 Studios + 1 core course). Master Lecturer positions are required to teach 21 credits per year with an additional 3 credits to be used towards teaching, research or administration, at the member's discretion (totalling 24 credits). The MSoA follows these distributions as well, in accordance with the LU *Collective Agreement*.

In addition, the MSoA has up to 10 Sessional Instructors per semester teaching primarily in Design Studio, and 3 Adjunct Professors who do not have teaching assignments. Sessionals may participate in a Design Studio or in a lecture course such as Professional Practice or Architectural Communications, but they are not allowed to supervise theses. This percentage of Sessionals teaching Design Studio is problematic as they are often inexperienced, coming to the MSoA to teach early on in their careers. This is due to the fact that in Sudbury, we do not have a pool of qualified architects in local offices who are willing and able to teach Design Studio.

In order to meet CACB *Condition 3.5*, the School of Architecture Director devotes at least 50% of his/her time to program administration. As mentioned, the current McEwen School of Architecture faculty Teaching Load is 15 credits per year; the Director teaches a load of 7.5, determined in consultation with the Dean of the Science, Engineering and Architecture (SEA) Faculty. During the year preparing for Initial Accreditation the Director's workload was reduced to 6 credits due to increased demands to coordinate this APR and Visiting Team activities while also administering the MSoA through the COVID-19 pandemic. Additionally, the BAS and MArch Program Coordinators receive 3-credit course load reductions in each academic year of their 2-year terms. The descriptions of these administrative positions are further described in the MSoA *Constitution*.

As will be mentioned in relation to current levels of administrative support, and in PPC 4 of Section 3.11.1, the current teaching workload reductions for Program Coordinator positions does not reflect the amount of administrative tasks currently undertaken throughout the year. The responsibilities of the Director position has also exceeded what would be considered a normal administrative load, given the development of a new program and the inception of the Graduate Program since 2018. Furthermore, the School Council has agreed that we require 6 Standing Committees with substantial levels of tasks and responsibilities (with 17 faculty members = 16 FTE), which demonstrates that there is a high degree of administrative work currently being done by our faculty members. Some faculty members have taken on more than an equitable load to ensure the Program runs smoothly, which far exceeds their 20% for administration and reduces their capacity to pursue research. Much of the intensive administrative work being done by faculty was really intended to be done by additional staff that have not been hired as per the original LU staffing plan. It is for this reason that the MSoA is currently evaluating how to improve our levels of administrative support to be more commensurate with comparable Canadian schools of architecture.

3.5 Faculty and Staff Resources

3.5.3 Full-time Faculty FTE and Sessional Overview

The MSoA's Human Resources thus far have been adequate. The School is intended to hold a total of 400 students, requiring at least 18 full-time faculty members (not including the Librarian or the Director), in addition to several Sessional instructors. The University has been committed to meeting this goal from the beginning and the hiring plan has been reinforced by the IQAP process. However, during the 2019-20 academic year we have a total of 16 FTE (including the Director), 10 Sessional studio instructors and 3 non-teaching Adjunct Professors. With a total of 330 students in 2019-20, this is a faculty:student ratio of 1:21, slightly exceeding the original projections.

In terms of Design Studio ratios, the BAS Program initially intended to accept 70 students per year. This worked out to 5 design instructors at 14 students each (aligning with the CACB 1:14 ratio for Design Studios). The School has aimed to meet this ratio since 2013 although at times the ratio has been slightly exceeded. However, due to the number of students who fail or leave the Program, the School has agreed to accept 75 incoming BAS students as our adjusted maximum to improve the probability of reaching our target of 280 BAS students. Even with this increase in our initial intake, our staffing plan with the Dean is intended not to exceed 1:15 in all undergraduate Design Studios. Other mandatory BAS courses are similarly capped at 75-80 students per course. This has become more manageable with the Faculty of Graduate Studies allocating Graduate Teaching Assistants (GTAs) that were desperately needed for many of our core courses.

As the School continues to grow, additional faculty members will be required in order to adequately deliver the Program. To explain further, the table below summarizes our current teaching situation for the 2020-21 academic year.

It is worth noting that at full capacity (400 students), the total number of teaching credits to deliver both the BAS and MArch Programs is 354 credits (23.6 FTE), which exceeds our 342 teaching credit capacity by 12 credits (0.8 FTE). If we use the 234 teaching credit capacity above, which does not include Sessionals, then we are 120 teaching credits (8 FTE) in excess of our full-time faculty capacity. With 16 full-time FTE at present, and an equivalent of 8 FTE made up of Sessional instructors, our full-time faculty are only delivering ⅔ (66.6%) of the Program , with ⅓ (33.3%) being delivered by Sessionals (primarily in Design Studio). This raises issues regarding educational quality, consistency, and equity among Design Studio groups that has the School concerned.

This is quite different from the initial proposal for faculty in a School that included 20 FTE (not including the Director), with the remaining 2.8 FTE to be filled by the Director and Sessionals. This initial plan argued for 87.7% of total credits to be taught by full-time faculty and 12.3% by Sessionals and the Director. The School has more recently agreed that 20 FTE, including the Director and

2020-21 MSoA Faculty Teaching Capacity

Faculty	***Teaching Capacity (credits)***
9 Full-time Faculty (15 cr. each)	135
1 Full-time Faculty (with a 3 cr. reduction)	12
1 Director (50% reduction, plus 1.5 credit reduction for Accreditation)	6
1 Full-time Program Coordinator (3 cr. reduction)	12
2 Full-time Master Lecturers (21 cr. each)	42
1 Full-time Master Lecturer Program Coordinator (3 cr. reduction)	18
1 Part-time Master Lecturer (voluntary 50% workload reduction)	9
1 Full-time Faculty on Sabbatical	N/A
Sub-total	***234 credits***
Sessionals	
17 Design Studio Sections taught by Sessional Instructors (6 cr. each)	102
2 Architecture "Core" courses taught by Sessional Instructor (3 cr. each)	6
Sub-total	***108 credits***
Total Credits	**342 credits**

the Librarian, could be feasible depending upon our maximum student numbers.

Related to our reliance on Sessionals, it must be emphasized that the City of Greater Sudbury region (approximately 160,000 people) has approximately 12 registered architects and a lack of qualified individuals who can teach Design Studio, let alone our core courses (especially when multiple faculty members are on sabbatical). In fairness, most local architects do not have the capacity to teach on a regular basis, although many of them come for Design Reviews, attend our lecture series for Continuing Education points, and at times give guest lectures in core courses. They also have been committed to hiring MSoA students for Co-op placement as well as hire them upon graduation. They also attend our regular events and are valued members of the MSoA community, but we are still lacking a pool of good local Sessionals.

The teaching credits per full-time Faculty (15 credits per year) and Master Lecturers (21 credits per year) does not take into account Thesis supervision, which averages 2-3 students per year, depending on whether a faculty member is tenure-track or tenured. This was a new and expected responsibility for all full-time faculty in the Fall of 2018. We are not allocated teaching credits for Thesis supervision, but rather paid $1,000 per student (upon submission of their MArch thesis) as per the LU *Collective Agreement*.

It is also worth noting that given the necessity to hire full-time faculty in waves as the Program rapidly rolled out, there are corresponding sabbatical implications, with 3 faculty members scheduled to take sabbaticals in each of the 2021-22 and 2022-23 academic years. During these years, the requirement for Sessionals will be even substantially higher. With 2 additional sabbaticals per year over the next two academic years, this would lower the full-time faculty teaching capacity to 60% without any additional hires.

Beyond our full-time teaching faculty, it is worth further noting that the MSoA had a full-time tenure-track Architecture Librarian from the Fall of 2013 until December of 2018. The MSoA Librarian was a tenured “Associate Librarian” when she resigned to pursue another position overseas. The University Librarian, Brent Roe, requested a search for a new full-time tenure-track Architecture Librarian in October of 2018. However, the University has only approved limited-term contracts for this position despite numerous requests by the MSoA and the main campus Desmarais Library for a permanent position replacement. This is a key position for a Professional Program to maintain, especially with the Architecture Library intentionally in our building and following CACB requirements for NA collections.

For all of the above reasons, it is apparent that the MSoA should still be preparing to add a minimum of 2 more full-time faculty (FTE) positions, as well as a full-time tenure-track Architecture Librarian within the next two years.

2019-20 MSoA Faculty and Staff

3.5 Faculty and Staff Resources

3.5.4 Support Staff

> *The APR must include:*
> *• a description and tabulation of the administrative and technical roles and qualifications of Program support staff, as well as a description of the distribution of effort where roles and responsibilities are split among multiple tasks or positions.*

As part of the "Project Charter" to fully establish the School of Architecture, the Steering Committee initially monitored the hiring of staff as well as faculty in order to properly deliver the Program. Since the School of Architecture is downtown and away from the main campus, certain positions had to be created without duplicating any positions unnecessarily. LU Human Resources (H/R) thus developed an elaborate staffing plan that was rolled out each year in consultation with the Founding Director, Dean, and VP Academic, beginning in 2012.

With a student cohort of 400 anticipated, and with up to 20 full-time faculty (now including the Director and the Librarian), and a number of Sessional instructors, the McEwen School of Architecture currently has 7 support staff (not including our full-time permanent Librarian who would hold a faculty position). Each staff member has a detailed Job Description vetted through the H/R department. Staff members also follow their own Laurentian University Staff Union (LUSU) *Collective Agreement.*

Current Administrative staff at the MSoA include:

1. Administrative Assistant to the School, Tina Cyr - Assistant to the Director, Finance, Timetable and Workload Administration, Building Administration, School Council Secretary
2. Administrative Assistant, Victoria Dominico - Assistant to Director and Program Coordinators (Admissions, Student-related coordination), Student and Faculty Support, School Communications and Events
3. Co-operative Education Coordinator, Denyse Leroy
4. Fabrication Lab Technologist (#1), Francis Thorpe
5. Fabrication Lab Technologist (#2), Emilio Portal
6. IT Support Analyst (#1), Patrick Dussiaume
7. Library Assistant, Dorothy Robb

Additionally, the MSoA employs the following through casual and limited-term appointments:

- Elders and Knowledge Carriers in Residence: Art Petahtegoose, Will Morin, Julia Pegahmagabow
- Architecture Librarian (Interim), Jennifer Ross

As described in previous APRs and every annual "Unit Report" to the University since 2018, the additional Administrative staff that were initially perceived to be needed to deliver the combined BAS/MArch Program at full capacity (400 students) included the following:

1. Co-operative Education Coordinator (# 2), Graduate Program
2. Fabrication Lab Technologist (#3), Digital expert
3. IT Support (#2), IT
4. Two part-time Library Clerks, Support Staff
5. Fabrication Lab Technologist (#4), Position TBC
6. Artist-in-residence (for Craft) Position (see below)

The School has been in the process of advertising for and hiring a Digital Technologist for the past 2 years, with delays resulting from the chosen candidate being international. The University has supported our pursuit of this candidate and we are hopeful this position will be filled prior to the CACB Visiting Team's in-person program review in 2021.

In December of 2018 a request was sent to the Dean of the Faculty of SEA to replace the Artist-in-Residence staff position with a Community Outreach and Communications Coordinator. This decision was unanimously supported by the School Council and the MSoA International Advisory Board in response to the need for increased levels of administrative support in fostering community engagement and outreach from the MSoA. Despite many requests to move forward with a search for this position, in May of 2020, this position was finally approved, but only if paid from the School's McEwen gift fund and not the operational budget, despite this being considered a funded staff position during the inception of the School (former Artist-in-Residence position). The MSoA School Council has approved to fund this position for one year out of our gift fund, with it eventually becoming an operational budget item. The School Council feels this position is essential to the success of our Program moving forward.

Hiring a second Co-op Program Coordinator remains quite critical due to the managing of Co-op placements during years 1, 3, and 5 of the Program. On two occasions, when we have had the Co-op Coordinator resign from the position, coupled with the delay in the hiring approval for a replacement, communication has been difficult to maintain with employers and students. Such communication breakdowns in this important relationship with outside employers should never happen. The initial staffing provided for 2 such positions (with over 330 students being placed multiple times during their degrees) so that there would be overlap in the event of vacation, sickness, or leaving the position. The gaps in the Co-op office places stress on the Director, the incoming Co-op Coordinator as well as the faculty delivering the Co-op courses, and, of course, our students.

Final staffing for the full 4+2 Program is now in a critical stage of discussion with the Dean and is subject to financial

approval during a period of fiscal uncertainty, due partially to the impact of COVID-19, as well as a University-wide 'Cost Containment' scenario that has already been in place since August 24, 2018 (see Appendix I).

In terms of the overall staffing, there currently seems to be sufficient IT support for the Program. However, the School has regularly had to outsource contractors to assist with audio visual and lighting support as well as video editing for recording our lecture series and other events, due to our IT person's job description restrictions. For the first three years of the School, we had an approved part-time Media Producer staff position. However, this position was not replaced when the person resigned for personal reasons. The School feels that bringing back a part-time A/V staff person might be a more effective solution moving forward.

The initial plan for Library Clerks may not be necessary given the high quality performance we have received from our Librarians (and student hires) to date. Thus, based on the Program running with a full student complement for 2 consecutive years, it seems imperative that the following 3 staff positions be added imminently (with estimated timelines):

1. Fabrication Lab Technologist (#3) Digital Fabrication - *In Process*
2. Community Outreach and Communications Coordinator - one-year out of gift funds, full-time position thereafter - *start January or July, 2021*
3. Co-operative Education Coordinator (# 2) - with specific administrative support provided to the growing Graduate Program - *start July, 2021*

The MSoA will also monitor the possibility of adding the following 2 positions over the next 2 years and beyond:

- IT Support (#2) - Part-time A/V and media focus - TBC - *possible start July, 2021*
- Fabrication Lab Technologist (#4) Position - TBC - *possible start July, 2022*

3.5.5 Human Resources Development

> *The APR must include:*
> *• the Program's policy regarding human resources development opportunities.*
> *• a description of faculty and staff development opportunities;*

Examples of professional development opportunities provided by the University for full-time tenure-track members include an annual Professional Development Allowance (PDA) to be used at the member's discretion, an $8K start-up grant (good for 3 years), and the opportunity to apply for a $5K Laurentian University Research Fund (LURF) that is usually granted for small scale research projects.

Another important resource to support faculty development is the Office of Research Services (ORS). The ORS provides assistance to researchers through a variety of activities, including every step of the pre and post research grant funding process, grant funding administration, knowledge mobilization, human participants research ethics, animal use protocols, and intellectual property management and technology transfer. They send regular information emails to the academic community to notify them of new programs or opportunities. They advise faculty on issues pertaining to ethical research, intellectual property management, and internal and external research funding opportunities.

The Centre of Academic Excellence (CAE) similarly provides teaching support for LU faculty and instructors. Included on the CAE team are a Director of Faculty Engagement, an Instructional Technology Coordinator, Instructional Designers, a Curriculum Development and Review Specialist and an Online Course Technician. The Centre provides numerous teaching workshops throughout the year providing skills and tips to improve teaching. In recognition of exceptional teaching on campus, Laurentian University offers one student-nominated $15K "Teaching Excellence Award" every year and in 2020 this was earned by MSoA faculty member Dr. Tammy Gaber.

Related to our tricultural mandate, the University provides French as a second language training to all faculty in partnership with Collège Boréal. Many MSoA faculty members have benefited from this program over the past 7 years as part of their contract regarding "passive bilingualism" at LU. There is also a Maamwizing Indigenous Research Centre on the main LU campus that provides networking opportunities for all Indigenous faculty throughout the University.

Within the MSoA itself, we maintain a faculty representative for the Association of Collegiate Schools of Architecture (ACSA) who ensures faculty are aware of various development opportunities provided by this organization, including conferences. Other opportunities are brought to faculty through various other initiatives through the Director's active participation on the Canadian Council of University Schools of Architecture (CCUSA).

Lastly, all LUFA faculty members are required to write an "Annual Report" that is submitted to the Dean for her/his approval according to various Articles in the *Collective Agreement*. This report allows members to express their career development successes and challenges directly to the Dean. Sessional instructors also submit Annual

3.5 Faculty and Staff Resources

Reports to the Dean's office. The MSoA Director, as a member of LUFA, is not involved in reviewing Annual Reports.

Regarding LU staff development, the Laurentian University Staff Union (LUSU) Collective Agreement includes an article specifically related to "Professional Training and Development." This includes funding 2 mini-conferences a year for Staff development, French or English language courses may be taken during regular office hours, and reimbursement for successful completion of any skills-upgrading courses from an accredited institution that has been previously approved by H/R.

Within the MSoA, Staff are further encouraged to participate in all levels of governance and actively participate in the cultural activities of the school.

3.5.6 Hiring And Tenure And Promotion Procedures

> *The APR must include:*
> *• a description of the policies, procedures, and criteria for faculty appointment, promotion, and tenure.*

For all LU faculty members, the main document that dictates the process of hiring, reappointment, tenure and promotion is the Laurentian University Faculty Association (LUFA) *Collective Agreement*. This document is followed by H/R as well as by the Administration. Additionally, Sessional instructors as well as Master Lecturers are part of the LUFA union, and their processes are outlined in the *Collective Agreement* as well.

The VP Academic and Provost's Office approves all requests for new faculty members for the MSoA through the Dean of the Faculty of Science Engineering and Architecture. The VP's office then initiates the process by forwarding the most updated "LU Hiring Procedures Manual" and all relevant forms. All faculty hires (including Sessional appointments) follow procedures outlined in the *Collective Agreement*.

Similarly, there are specific sections of the *Collective Agreement* dedicated to "Tenure Evaluation" and "Promotion Procedures" that apply to all tenure-track faculty and Librarians at Laurentian University, as well as the assessment of the member's performance, which applies to all faculty. A committee of tenured faculty members from the MSoA offer a departmental assessment of MSoA faculty members applying for Tenure and Promotion. This is forwarded to the FPC (Faculty Personnel Committee), which gives their own assessment to the VP Academic and Provost. The Dean writes an independent assessment of the candidate, which is also forwarded to the FPC.

An MSoA 'task force' has been working on a Tenure and Promotion Guidelines document specifically for our tenure-track faculty. This document would be in addition to the guidelines for Tenure and Promotion outlined in the *LU Collective Agreement*. Please see the most recent draft of this document in Appendix K.

3.5.7 Faculty Activities That Encourage Currency In Practice

> *The APR must include:*
> *• evidence of how faculty activities encourage currency in the knowledge of changing demands of practice and licensure.*

As stated in 3.5.1, we currently have as many registered architects in full-time teaching positions as we do who hold doctorates (while two faculty members hold both). Four of our Sessionals during 2019-20 also are registered practitioners. Thus, our first strategy to ensure that the Program encourages relevance in the knowledge of changing demands of practice is to ensure that we have registered practitioners as integral contributors to the School culture. Each of our registered architectural practitioners must maintain their provincial continuing education credits, and are kept abreast of various professional conferences and other development opportunities throughout the year by their registering body. The Northern Ontario Society of Architects (NOSA) has also built strong ties to the School through our registered faculty members who frequently participate in the initiatives of this OAA sponsored group. NOSA holds their meetings in our building and sponsors annual lectures in our public lecture series.

The second way we ensure currency in professional practice is by inviting practitioners to the School as invited guests and lecturers. Please refer to pages 69-77 for a list of guests who have contributed to both the public lecture series and the various courses throughout our curriculum. We frequently invite regional architects to act as Design Studio reviewers, who bring invaluable practical feedback and advice for faculty and students about practicing in the north. We have also intentionally invited practitioners from successful firms outside of our region to act as External Reviewers for our thesis student reviews. This allows both faculty advisers and students to receive critique from practitioners, who also offer feedback to the Program about the relevance of our curriculum. The OAA Presidents have also been guests to the MSoA on multiple occasions to offer their support, speak, and give out OAA Awards.

The Thesis year has arranged to invite a number of official "External Examiners" for Thesis exams and final thesis Design Reviews. We have made a concerted effort to have registered architects from noted firms be

in this role alongside academic colleagues. Licenced architects Janna Levitt (OAA), Carol Phillips (OAA), Anne Bordeleau (OAQ) and Brian Bertrand (OAA) have been External Examiners during Thesis 2019 and 2020, offering invaluable professional feedback to our MArch graduating students.

Lastly, various faculty members work with our Co-op Coordinator to ensure that entire cohorts are hired by design firms. This allows for a productive feedback loop between the School and the profession at large.

3.5.8 Faculty Research Activities

> *The APR must include:*
> *• a description of the Program's approach to research, research activities carried out within the Program, and how the research may or may not inform the professional curriculum.*

The faculty at the McEwen School of Architecture have collectively established a strong research output since the School opened in 2013. Faculty are supported by the Office of Research Services (see 3.5.5). Various faculty members review each other's proposals prior to submitting, as an informal opportunity to gain peer review. Research at LU composes approximately 40% of time for full-time tenured or tenure-track faculty members.

It is worth emphasizing that the School expanded rapidly every year from 2013-2019, including numbers of students and faculty, added courses, and all the administrative challenges to adapt and deliver both undergraduate and graduate degrees. This initially required substantial time commitments by all faculty members that reduced time for research focus. Nonetheless, faculty have been productive in both applying for and receiving an impressive list of grants. A total of $7,126,837 in awarded grants have included our faculty members in various roles, and $1,578,040 with our faculty members in Principle Investigator (PI) or Co-PI roles. In all cases, the research initiatives listed below directly link to teaching subjects by the faculty member, allowing the MSoA to benefit from the collective expertise of the faculty.

Dr. Izabel Amaral

2020-
"An Ecology of Wood Cultures in Canada (2003-2020): comparing constructive Cultures through awarded architectural designs"
Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, Federal Government of Canada.
Co-applicants: Carmela Cucuzzella, Jean-Pierre Chupin.
CDN $74,983.00

2020-2022
"Contribution to an Edited Book on Architecture and Sustainability"
Fond de recherche de l'Université Laurentienne (LURF / FRUL) .
CND$ 4080.00

2018-2020
"Review on Wood Architecture: 20th and 21st century texts and buildings"
Fond de recherche de l'Université Laurentienne (LURF/ FRUL)
CND $5.000

Prof. Shannon Bassett

2020
"Sudbury as the Ecological City – Re-Greening the Downtown Core through Landscape Ecology and Infrastructure."
Laurentian University - LURF (Laurentian University Research Fund)
Role: Principal Investigator
CDN $4,250.00

2019
"Integrating Indigenous Land Based Learning into the Architectural Curriculum-Disseminating Knowledge through Social Media."
Social Sciences and Humanities Research Council (SSHRC) Knowledge Mobilization Fund, Laurentian University.
Role: Principal Investigator
CDN $3,000.00

2011-2017
National Endowment for the Arts (NEA) Grants-Access to Design Excellence and Innovation - (Re) Stitching Tampa to its Riverfront-Connectivity Through Urban Landscape and Ecological Infrastructure - An International Ideas

3.5 Faculty and Staff Resources

Competition for the City of Tampa and ensuing publication by ACTAR, "(Re) Stitch Tampa - Designing the Post-War American Coastal City through Ecologies" (published July 1, 2017)
Role: Principal Investigator
USD $30,000.00 - Also Generated Matching Grants within the Community

2016
"The Changing Chinese Landscape-Recovering China's Landscapes."
Curation of symposium and exhibit addressing themes of the changing Chinese architectural, urban and ecological landscape(s).
Hanban Headquarters, Beijing, China and UB Confucius Institute
Role: Principal Investigator
USD $5,000.00

2016
Travel/Conference Award- Awarded $500 towards conference travel to present accepted paper at the International Association for China Planning (IACP) Annual Conference in Chongqing, China
USD $500.00

Prof. Mark Baechler

2020 -
"The Birch Chair: A Design Exploration of Hardwood Species in Northern Ontario Forests"
Laurentian University Research Fund (LURF)
CDN$4,250

2018 - 20
"Wegner Variations: Wood Furniture and Architecture Design/Build Project"
McEwen Gift Agreement
CDN $20,230

2017
"Cyan-Magenta-Yellow-Green (C-M-Y-G)"
Ontario Association of Architects – Societies Special Project Fund
Role: Co-applicant with Amber Baechler, Northern Ontario Society of Architects
CDN $5,000

2016-17
"Abrahamic Architecture"
Laurentian University Research Fund (LURF)
CDN $5,000

Prof. Steven Beites

2020- "Northern Platforms: Digital fabrication and robotic methodologies specific to in-situ construction processes in the North."
Autodesk Industry Grant
CDN$35,000

2020-
"Architecture, Neuroscience and Technology: An Investigation into the Experiential Dimensions of the Built Environment"
Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant (Research-Creation). Federal Government of Canada.
Role: Co-applicant with Blake Dotta, Laurentian University
CDN$74,656

2018 "Investigation into Fiber Reinforced Concrete and Stabilized Rammed Earth within an Advanced Manufacturing Framework."
Laurentian University, Research Fund (LURF)
CDN$5,000

2014-2016 "Robotic Construction Technologies: KUKA Robotic System"
Ryerson University, Dean's Research Fund
Role: Co-applicant with Colin Ripley and Vincent Hui
CDN$45,000

Dr. Aliki Economides

2019-2022
"Building Peace: 'International' Modern Architecture and the Communicative Monuments of Postwar Diplomacy"
Laurentian University Research Fund (LURF)
$5,000
Role: Principal Investigator

2019
"Une Tour sur la Montagne : l'architecture d'Ernest Cormier et sa vie avec Clorinthe Perron." [Documentary Film directed by Paul Carvalho. Montréal: Perception Films Inc. for ICI Radio-Canada Télé, 2020. DVD (52 mins)].
Rogers Documentary Fund
Role: Collaborator (with Paul Carvalho)

2018
"Une Tour sur la Montagne : l'architecture d'Ernest Cormier et sa vie avec Clorinthe Perron." [Documentary Film directed by Paul Carvalho. Montréal: Perception Films Inc. for ICI Radio-Canada Télé].
Radio-Canada Production Contract, funded by Ici Radio in conjunction with the Canadian Film Fund.
Role: Collaborator (with Paul Carvalho)

2018
"Building Peace: 'International' Modern Architecture and the Communicative Monuments of Postwar Diplomacy"
Rockefeller Archive Centre Research Grant: $2000 USD
Role: Principal Investigator

2018
"Skin, or, the Enveloping Tactics of Architectural Ornament."
Society of Architectural Historians' George R. Collins Fellowship: $1000 USD
Role: Principal Investigator

2017
"Une Tour sur la Montagne : l'architecture d'Ernest Cormier et sa vie avec Clorinthe Perron." [Documentary Film directed by Paul Carvalho. Montréal: Perception Films Inc. for ICI Radio-Canada Télé].
Radio-Canada Development Contract, funded by Ici Radio in conjunction with the Canadian Film Fund
Role: Collaborator (with Paul Carvalho)

Dr. David Fortin

2020
"One House Many Nations: A community-first approach to address homelessness amongst First Nation youth."
Making the Shift Youth Homelessness Social Innovation Lab.
Role: Collaborator (Principle Investigator: Dr. Alex Wilson, University of Saskatchewan)
CDN$500,000

2019-2021
"Tracing the relationship between colonial land appropriation and contemporary urbanization in the Greater Golden Horseshoe and Paddle Prairie."
Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, Federal Government of Canada.
Role: Co-applicant with Adrian Blackwell, University of Waterloo
CDN$74,895

2018
"UNCEDED: Voices of the Land."
Canada Council for the Arts, Venice Biennale winning proposal.
Role: Co-curator with Gerald McMaster, OCADU. Presenter, Douglas Cardinal.
CDN$500,000

2014-2018
"(In)Formally Canadian: A Diachronic analysis of prairie Métis approaches to architectural design"
Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant. Federal Government of Canada.
CDN$69,537

Dr. Tammy Gaber

2020
Full-time Professor Teaching Excellence Award
Laurentian University Faculty Teaching Excellence Award
Research Fund Grant
CDN$15,000

2020
"Beyond the Divide A Century of Canadian Mosque Design"
Laurentian University Faculty Research Fund Grant (LURF) Publication Subvention
CDN$4,250

2019
"Cosmic Ordering of Sub-Tropic of Capricorn Mosques"
Laurentian University Faculty Research Fund Grant (LURF)
CDN$4,994

2017
"Room Sometimes with A View Exhibition"
Laurentian University Office of Vice President of Research, Research support
CDN$1,000

2016-2018
"Room Sometimes with A View – Research-Creation"
Laurentian University Faculty Research Fund Grant (LURF)
CDN$4,576

2015-2017
"Beyond the Divide A Century of Canadian Mosque Design"
Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, Federal Government of Canada.
CDN$63,935

3.5 Faculty and Staff Resources

Prof. Patrick Harrop

2020-22
LURF Research Grant: La Brume du Paysage: An aesthetic investigation of
Anthropocene in the industrial landscapes of Northern Ontario.
CDN $4,250

2016-18
LURF Research Grant: Speigelsaal. Funding for exhibition (Biennale D'art Numerique) June 2016 and further development of Speigelsaal platform.
CDN $4,500

2017-19
SSHRC Connections Grant: "Framing peer-review platforms for an emerging field (co-applicant)" A further expansion of dbx (Design Build Exchange) as part of "Thinking While Doing: Connecting Insight to Innovations in the Construction Sector" SSHRC Partnership Grant. Specific role: dbx database lead, co-chair of dbx virtual conference in design-build strategies in collaboration with the ACSA. Co-applicants. Dr. Edwin Cavanagh (PI) (Dalhousie), Patrick Harrop (CA) (Laurentian), Johanna Amos (CA) (Queens), Stephen Verderber (CA) (Toronto)
CDN $49,955

2015-17
SSHRC: Connections Grant: – "Design and Construction Exchange Network". Expansion of dbx (Design Build Exchange) as part of "Thinking While Doing: Connecting Insight to Innovations in the Construction Sector" SSHRC Partnership Grant. Specific role: dbx database lead, co-chair of dbx virtual conference in design-build strategies in collaboration with the ACSA. Co-applicants. Dr. Edwin Cavanagh (PI) (Dalhousie), Patrick Harrop (CA) (Manitoba), Michael Monti (CA) (ACSA), Stephen Verderber (CA addition) (Toronto)
CDN $49,881

2013-18 SSHRC: Partnership Grant – Insight + Connection (Research/Creation). "Thinking While Doing: Connecting Insight to Innovations in the Construction Sector". International Research/Creation project examining and engaging with Design/Build practices. Specific role: Open Sourced digital fabrication collectives, techniques and networks.
Collaborator. Dr. Edwin Cavanagh (PI) (Dalhousie)
CDN $2,483,150.

Master Lecturer Randall Kober

2018-2019
International Wood Educators Conference
Wood Works Ontario/FedNor
Role : Chair
CDN$50,000

2018-2019
International Wood Educators Conference
Mass Timber Institute
Role : Chair
CDN$50,000

Dr. Kai Wood Mah

2020-
"Dynamic Referrals for Greater Toronto Area Refugee Youth." Partnership Engagement Grant, Social Science and Humanities. Research Council (SSHRC).
June 2020-May 2021.
Role: Co-PI with Patrick Lynn Rivers and David Roberts.
CA$24,974.

2019-
"Housing Unaccompanied and Separated Refugee Minors in Toronto." Community Partnership Research Program, University of Toronto.
January 2019-December 2021.
Role: Co-PI with Patrick Lynn Rivers and David Roberts.
CA$135,638.

2016-2018
"Decolonizing Early Childhood Discourses". National Research Fund of South Africa.
January 2016-January 2018.
Role: Co-Investigator with Karin Murris as PI.
ZAR1,783,860.

2016-
"Democratic Early Childhood Development". Insight Development Grant, Social Science and Humanities Research Council (SSHRC).
September 2016-August 2019.
Role: Co-PI with Patrick Lynn Rivers.
CA$74,728.

2018
"Situated Architectural Practice and Politics". LURF Grant.
CA$5000.
Role: PI

Dr. Emilie Pinard

2020-
“Chaire UNESCO pour la conception et la construction d’écoles solidaires et durables”
Office of the Vice-President Research, Laurentian University
Role : Chair co-holder with André Casault, Université Laval
CDN$30,000

2020-
“Chaire UNESCO pour la conception et la construction d’écoles solidaires et durables”
Fonds de recherche du Québec (FRQ)
Role : Chair co-holder with André Casault, Université Laval
CDN$45,000

2019-2022
“Doing things differently: An atlas of best practices and opportunities for culturally acceptable and sustainable living environments in Nunavik “
Projet - Sentinelle Nord
Role: Collaborator (Co-directors : Geneviève Vachon and Michel Allard, Université Laval)
CDN$469,590

2018-2021
“Construire sur les traditions : savoir-faire et innovation dans l’architecture vernaculaire, Sénégal et Guinée-Bissau”
Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant. Federal Government of Canada.
CDN$74,071

2018-2020
“Construire sur les traditions : savoir-faire et innovation dans l’architecture vernaculaire, Sénégal et Guinée-Bissau”
Laurentian University Faculty Research Fund Grant (LURF)
CDN$5,000

2018-2020
“Apprendre du territoire : conception en collaboration d’un centre de la transmission de la culture innue”
Social Sciences and Humanities Research Council (SSHRC) Partnership Engage Grant. Federal Government of Canada.
CDN$24,493

2015-2020
“Habiter le Nord québécois : Mobiliser, comprendre, imaginer”
Social Sciences and Humanities Research Council (SSHRC) Partnership Engage Grant. Federal Government of Canada.
Role: Co-researcher (Director: Geneviève Vachon, Université Laval)
CDN$2,046,176

3.6 Space and Technology Resources

McEwen School of Architecture. Ground Floor Plan.

3.6 Space and Technology Resources

The Program must provide physical resources that are appropriate for a professional degree program in architecture, including Design Studio space for the exclusive use of each full-time student, lecture and seminar spaces that accommodate a variety of learning modalities, office space for the exclusive use of each full-time faculty member, and related instructional support space . The Program must demonstrate that all students, faculty, and staff have convenient, equitable access to appropriate visual, digital, and fabrication resources that support professional education in architecture .

3.6.1 Physical Resources

The APR must include:
• a general description with labeled plans indicating seminar rooms, lecture halls, studios, offices, project review and exhibition areas, libraries, computer facilities, workshops (including technology), and research areas;

With our two phases of over 44.1 million dollars in construction and furnishing the renovated and new buildings on the downtown site, the MSoA has excellent facilities that will support the long-term success of the Program. With 4 buildings surrounding a central courtyard (planned to be privately controlled), the School provides over 65,000 sq.ft of dedicated space for architectural education.

Offices

There are currently enough offices for our faculty (17 individual offices), Sessionals (2 shared offices) and Staff (5 in the Main Office and 2 in the FabLab). Having 5 Sessionals share a single small office is not ideal in our case because they are often in Sudbury for only one term, sharing small apartments and thus require the workspace. We have also applied for a FedNor Intern to further develop a plan for a wood design centre at the School, and there is currently no space we can dedicate for them. Similarly, we expect we will need at least 2 more faculty and anywhere from 2-4 new staff members in the coming years (ideally the Community Outreach and Communications Coordinator will be hired in early 2021), so we will need to convert the existing photocopy room in the Telegraph Building into an office as originally planned, and/or expand into the main floor of the Telegraph Building very soon. This has always been reserve space. Thus, while our existing office situation functions currently, there is no room for growth, which is a significant concern.

Studios

The MSoA has 1,213 m2 (13,060 ft2) of dedicated undergraduate (BAS) studio space and 448 m2 (4,824 ft2) graduate (MArch) studio space, over three floors. Each student has a custom-designed desk with a large drawer (undergraduate student desks include a pinboard at the back), as well as a mobile credenza where they can store their belongings. For the undergraduate studios, we have room for 64 desks on the ground floor, 129 desks on the east studio of the second floor, and 83 desks in the west studio (second floor) for a total of 276 desks. This barely supports our target for 280 BAS students, however, there are complications in the current scenario in that the Main Floor studio is 6 students short of our target of 70 (a small group of students would need to be on a different floor). Similarly, the west studio is 13 desks larger than a typical cohort, so this is likely to remain the first-year studio moving forward. This is a situation we will continue to monitor. During the Fall semester, when both graduate student cohorts are in the building, there is currently sufficient space for student desks and a small breakout space for reviews on the mezzanine level. Given that LU's target is to add approximately 40 more graduate students, we will eventually lose the current pin-up space on the mezzanine level unless we expand our space.

Other featured spaces in the building include the following: a CLT Classroom (151 m2), a Lecture Hall with both dual drop-down screens and a larger single drop-down cinematic quality screen (212 m2), a performance Atrium (171 m2), an open student exhibition and critique space known as the Crit Pit (189 m2), the FabLab space (including a photo lab, wet lab, digital lab, wood shop - 804 m2), and the Architecture Library. There are also a few informal pin-up spaces and the Boardroom also functions as a seminar space when available. The Atrium has a wood-burning fireplace as a back-up for sustainable practices and our spacious Student Lounge has a gas fireplace.

The School's site also has extensive landscaping, with an outside ceremonial fire, a green roof over the CLT wing, a greenway/bioswale as a community park, and an outdoor enclosed design-build area adjacent to the Fabrication Labs. This will allow the School to embark on extensive future community projects.

Overall, the MSoA recognizes that we are very fortunate to be housed in a purpose-built, state of the art location and building that has received numerous prestigious awards including the following recognitions:

- Ontario Wood WORKS! Wood Design Award, 2017 (link)
- Ontario Consulting Engineering Award, 2018 (link)

3.6 Space and Technology Resources

McEwen School of Architecture. Second Floor Plan.

- Chicago Athenaeum International Architecture Award, 2018 (link)
- Ontario Association of Architects (OAA) Design Excellence Award, 2018 (link)

The MSoA building has also been featured on the following webpages as well as numerous local news stories:

- Canadian Architect Magazine
- The Plan Magazine
- ArchDaily
- Architizer
- Wood Works! Case Study
- Treehugger
- Designaholic

Please refer to the plans of the building for further information (pp. 98, 100, 102).

3.6.2 Changes to the Facility

> *The APR must include:*
> *• a description of any changes to the facility (including furniture, equipment, etc .), whether under construction, funded, or proposed;*

Despite being a well-designed new facility, there have been a number of changes required since the building (Phase 2) officially opened in January 2017:

MSoA Fab Lab
As our Design-Build aspirations have been mobilized throughout all years of the combined BAS/MArch Program, we have required more space for assembly, particularly during winter months. Thus, the former Cultural Room is mostly used for these purposes.

Similarly, our outdoor space beside the FabLab has been expanded through the efforts of a graduate Craft studio led by Professor Mark Baechler which constructed the frame for a new wood drying shed (for harvested wood from the School's new forest on main campus). There has also been a new portable sawmill purchased that will allow for greater Design-Build possibilities moving forward. We have thus recently planned for an expansion of the outdoor space to facilitate our expanding aspirations.

Our Robotics Lab has been renovated to include a large window to allow faculty and students to safely watch the robot during operation. A new linear track has also been purchased and will be installed during the Summer of 2020 to expand the capacity of the robot for larger constructions.

There was a serious roof leak in the Fab Lab that required patching during the Spring of 2020.

Front Office
The school required an extra storage room to accommodate various administrative purposes, primarily the secured storage of portfolios during the Admissions process. Thus a wall and door were added in 2018.

Print Room
The MSoA was not designed to have a dedicated space for plotters. School Council decided to convert one of the Sessional Offices beside the IT office into such a space.

CLT Classroom
A new hanging rail system was installed in 2019 that allows the Classroom to be used as a studio review space when no other courses are using the space.

Computer Lab
A separate door needed to be added to the Computer Lab so that the other door into the Library could be controlled by the Library Staff.

Library
The glass doors entering into the CLT Architecture Library were completed in 2018. A new hanging rail system is to be installed to allow the Library to be used as the CACB VT room during the 2021 site visit.

Studios
A large permanent sculpture by northern Ontario artist Ray Laporte titled "Rock Bass: A School within a School", was installed in the main studio space in 2017. This was a community initiative paid for by private donations.

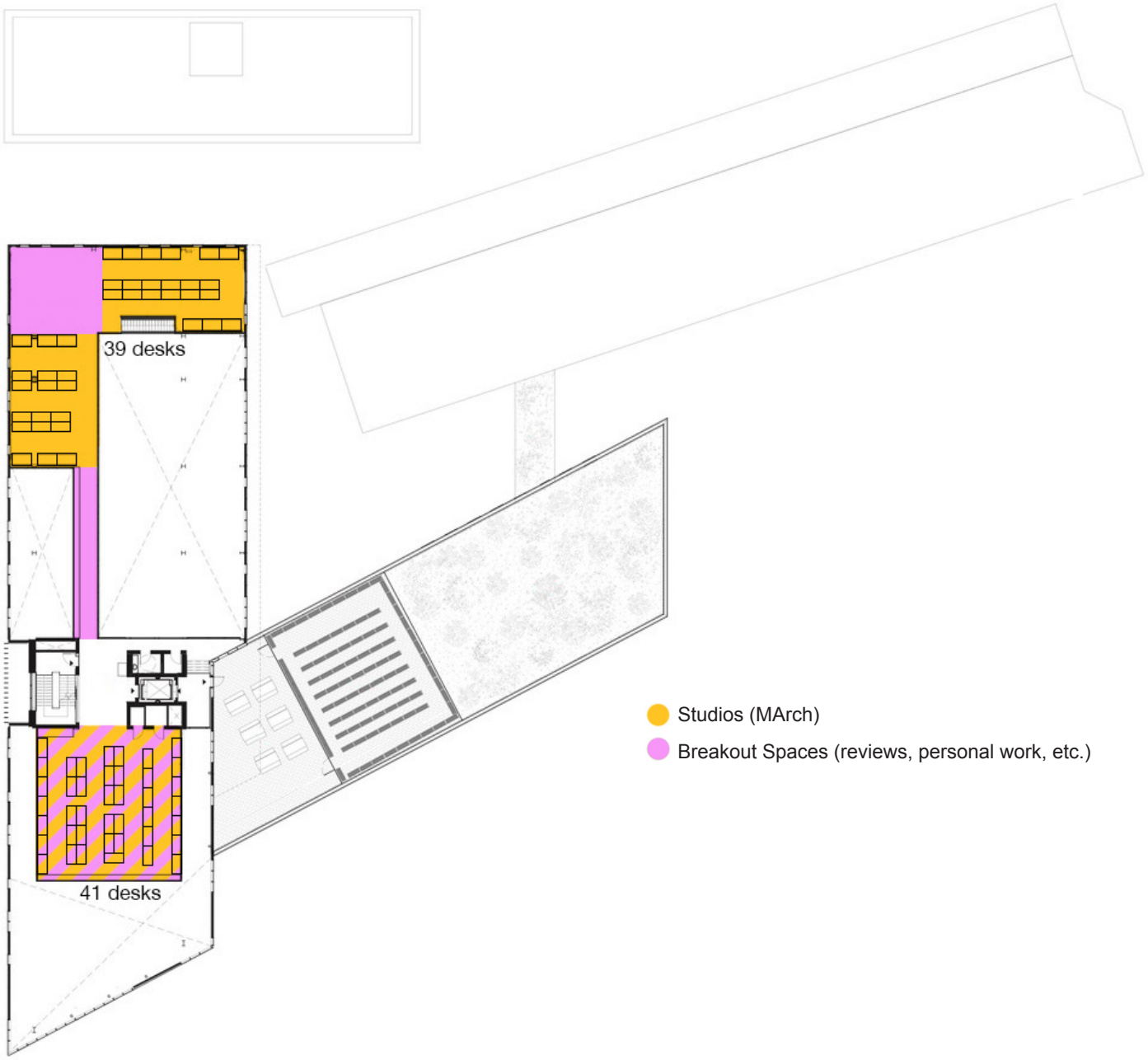
Another hanging rail system was added to the West mezzanine space to similarly allow for more flexibility, particularly when our 5th year cohort are not in the building due to Co-op placements.

A passageway into the main floor studio needed to be widened to allow studio desks to be moved in and out effectively.

A Material Exchange Depot (MXD) was installed in 2019 to serve as a location for students to drop-off and take reusable material. This was in response to the previous semester's accumulation of garbage and a community-wide aspiration to significantly reduce waste in our building.

During the Fall of 2020 new railings and kick plates will be installed along the bridge and Mezzanine studios to reduce the chance of material being accidentally knocked off and injuring students on the second floor.

3.6 Space and Technology Resources



McEwen School of Architecture. Mezzanine Floor Plan.

Proposed Changes to the Facility

Remaining Items from Capital Project
There are still a number of items that were not completed as part of the original building design due to a litigation matter with the contractor. This includes some major landscaping (including bike rack installation), outdoor fencing for the private courtyard (for MSoA exhibitions and displays), and the vertical (lenticular) fins at the Main Entry on Elm St.

As per below there should be an office added to the Telegraph Building (current photocopy room).

Atrium
We have had an engineer draw plans for a cable suspension system to hang some of our birch-bark canoes in this space. This has not yet been implemented due to University cost constraints.

Telegraph Building
The School is currently in conversation with the University Administration about potential use of the main floor of the Telegraph Building (currently being leased to a local restaurant and a telecommunications company for their server).

The initial plan for the Telegraph building was to convert the current photocopy room into an office and move the photocopy room into the unused staircase. With the need for more faculty and staff hires, this is something we need to have approved as soon as possible.

The School Council has discussed the following possible programs to occupy the building in the future: a Community Design centre, a small gallery, more seminar and meeting spaces (with a research focus), and increased office space. There is also a question of a cultural space to support our Indigenous initiatives given that the current Cultural Room has evolved into a multi-purpose space.

Overall Sustainability
At our Regenerative Design workshop in 2019, led by Jason McLennan of the International Living Future Institute, there was McEwen Advisory Board interest in what it would take for the MSoA to be the first net-positive building in Downtown Sudbury. While this may take decades to accomplish (especially with regards to finding the funds to accomplish such an ambitious plan), this represents a tremendous opportunity to provide further leadership in sustainability for our city and the region.

3.6.3 Workshop and Fabrication Resources

> *The APR must include:*
> *• a description of workshop and fabrication resources including equipment, infrastructure, and other resources available to students, faculty, and staff;*

At the heart of our Facility is the MSoA Fabrication Lab, including Workshops, Photo Lab, Wet Lab, Paint Lab, Wood Lab, Cultural Room, Digital Fabrication Lab, and Robotics Lab. The Fabrication Labs are located in the Old Market Building on Elgin Street, which also contains the MSoA's Cultural Room, a multi-use teaching and design-build space. These Labs are a dynamic and bustling environment where undergraduate and graduate architecture students alike meet faculty and technologists to design, create, learn, and be mentored and guided through their studies at the MSoA. It is a critical aspect of each student's architecture education because it brings together theory and practice - it is the hub where students manifest their designs into material forms.

Both analog and digital fabrication take place and often overlap. The Digital Labs are located at very close proximity to the Wood Lab so that multiple methodological approaches can take place. This allows for detailed experimentations at various scales in special material connections, for example, to take place. The fully equipped Wood Lab offers students a wide choice of hand, powered and industrial grade tools, and subsequently, a myriad array of fabrication and construction methods. The collision of traditional woodworking, furniture-making and construction with advanced digital methods offers students at the MSoA a unique, innovative and radical approach to making, fabrication, construction, materials research and architectural education.

The McEwen School of Architecture has seven different, yet connected Laboratories:

1. The Wet Lab

The Wet Lab is dedicated to all procedures that require water, such as experiments in concrete, plasters, general earthen construction, dying, and other liquid techniques. It is equipped with a large stainless utility sink with 3 faucets, a floor drain that is connected to a sediment pit, as well as waterproof wall finishing. Within the wetlab is a Tucker's GX 2327 Cone Art kiln with a capacity of 8.4 cubic feet to facilitate the research conducted on clay and ceramics within architectural practice.

3.6 Space and Technology Resources

McEwen School of Architecture. Wood Lab. Photo: Bob Gundu.

2. The Photo Lab

The Photo Lab is generally used for high quality documentation of architectural models and other small to medium scale work. The Lab is equipped with state-of-the-art lighting, backdrops, and cameras.

3. Paint Lab

The Paint Lab is equipped with a large overhead fume hood, which is rated for all conventional aerosol applications. There are also 2 fire-rated aerosol and paint cabinets, which are equipped with automatically closing doors.

4. The Wood Lab, Assembly Area, Outdoor Assembly Area and Loading Dock

The Wood Lab is dedicated to all operations in wood and products made of wood. The 468 m2 (5,037 sf) space includes 2 offices for Fabrication Lab Technologists and an assembly area with numerous workbenches and clamps for model building and design-build projects. The wood shop is fully equipped with a dust collector and multitude of tools, from traditional woodworking hand-tools to large-scale industrial wood processing equipment including the following:

Stationary tools: 2 SawStop cabinet saws, CANTEK widebelt sander, Felder planer-thicknesser, 2 Felder bandsaws, straight line rip saw, King oscillating edge sander, King 16” x 43” wood lathe, King 12” x 36” metal lathe, King oscillating spindle sander, Bosch 12” sliding compound miter saw, Belfab downdraft table, 2 King 30” scroll saws, 2 King 12” disk sanders.

Power hand-tools: several 18v Makita drills, drivers, circular saws, jigsaws, grinders, belt sanders and battery chargers, 2 Bosch routers, several Festool Rotex sanders and dust extractors.

The MSoA values traditional and indigenous approaches to craft and making, and thus has invested in a comprehensive range of gouges, chisels, hand-planes, spokeshaves, and all the necessary sharpening equipment to hone their edges.

The Outdoor Assembly Area and Loading Dock are located adjacent to the Wood Lab. The partially covered, fenced area is connected to the Wood Lab with two roll-up garage doors that allow for building materials and design-build projects to be moved between indoor and outdoor shops. The outdoor assembly area includes a Norwood HD36 portable sawmill for cutting large wood logs. As well, there are several racks for drying wood and storing reusable building materials.

5. Culture Room

The Culture Room is a multi-purpose teaching and design-build assembly space. In addition to serving as a classroom and design critique space, the room is used for numerous design-build projects including: birch bark canoes, ice stations, digital fabrication installations, and graduate design-build research.

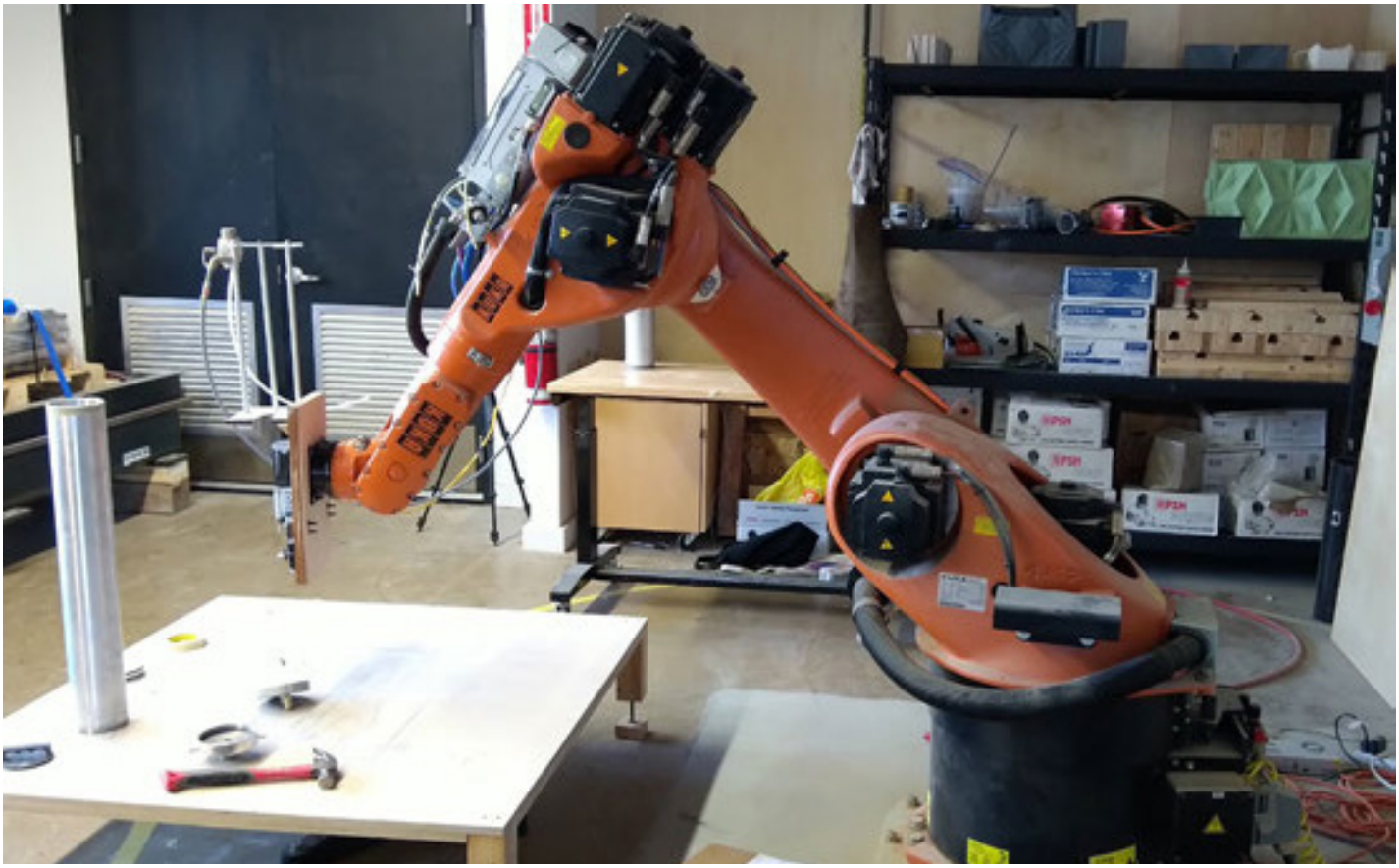
6. Digital Fabrication Laboratory

The Digital Lab is equipped with multiple computer workstations with CAD/CAM capability, a soldering station, two 18”x32” 100W Universal Laser Cutters, one Markforged Mark II Enterprise 3D Printer capable of printing carbon fiber, onyx, kevlar and high Temp Fiberglass and a Form 2 liquid resin 3D Printer. The workshop is also equipped with a 3-axis 5’ x 8’ AXYZ CNC Router and dedicated computer station with CAM software.

7. Robotics Lab

The MSoA Robotics Lab features a medium payload 6-axis KUKA industrial robot (KRC2) and a 4 meter KL1500/2 linear track as a 7th external axis. The robot is equipped with an I/O module allowing for digital input and output control, an ELTE spindle, a chainsaw end-effector and three custom clay extruding systems (ball screw and auger-driven) capable of 3D painting clay bodies. The lab is also equipped with VPM9 Peter Pugger Mixer Pugmill.

Advanced training is required for all of the above, and is reserved for Third and Fourth year BAS students, Graduate students and Faculty Research.



McEwen School of Architecture. Robotics Lab.

3.6 Space and Technology Resources

3.6.4 Information Technology

> *The APR must include:*
> *• a description of the information technology available to students, faculty, and staff, including hardware, software, networks, services, staff, and other computer resources .*

Personnel
The IT Support Analyst position, who reports to the IT department, is dedicated to supporting technology at the McEwen School of Architecture (MSoA). They provide on-site assistance for all students, faculty and staff with regards to technology pertaining to the school. They act as a bridge between the MSoA and Laurentian's on-campus IT team. Having someone located within the MSoA allows for a "service desk" style of support at a convenient location for the students and personnel. In addition to installing and maintaining software and hardware in the computer labs and teaching spaces, the responsibilities of the IT Support person also include the smooth operations of network, AV, and computer and printing equipment on site. This also includes providing technical support for faculty/staff office computers, as well as student computers in regards to benefiting their learning experience.

Hardware
The MSoA has several teaching spaces and a Boardroom with modern Audio Visual equipment available. A dedicated Printing room, Computer Lab, as well as Fabrication lab with laser cutters and 3D printers are accessible to students. Over the last 2 years we have added a dedicated Render Farm, updated the Computer Lab with faster, more powerful PCs, added Lecture Capture and Video Conference capabilities to our classrooms as well as centralized our on-site large formatting printers/scanners and made our equipment sign out process more available by moving it to the Library which is open for longer hours. Hardware details per room is listed as follows.

Crit Pit
The Crit Pit includes a microphone connection and audio-in that plays through the speakers located on the ceiling. A wireless microphone system is available to use in this space to allow a wider range of applications.

Atrium
The Atrium includes a Microphone connection and speakers mounted above the space. HDMI inputs connect to the 70" Touch Screen Display next to the elevator. This display is also equipped with a standalone PC for independent use. This space can also accommodate overflow from the Lecture Hall or CLT Classroom audio and video feeds.

CLT Classroom
The AV equipment located in the CLT Classroom consists of a podium with touch panel controls. Dual projectors and screens allow for either a single source or dual sources projected in tandem. Input options include a Blu-Ray player, Document camera, in room PC, as well as secondary HDMI input. A 70" confidence monitor is located at the back of the room. A wired and wireless microphone can also be used in space. Speakers line the ceiling for the room audio. Room cameras are positioned in the front and back of the Classroom. The room features video conferencing capabilities for remote guest speakers as well as the ability for lecture capture.

Lecture Hall
The AV equipment in the Lecture Hall consists of a podium with touch panel controls. The room itself has 2 modes. Presentation Mode consisting of dual projectors and screens that allow a single source or dual sources projected in tandem. Movie Mode, which utilizes the center laser projector and larger cinema screen. The mode selection also ties into the lighting controls, automating the lights. Input options allow for Blu-Ray, Document camera, in room PC, as well as a secondary HDMI input. Two 15" JBL Speakers provide the room with high-level performance audio. Two wireless microphones can be used simultaneously as well as a wired mic as required. Room cameras are positioned in the front and back of the Lecture Hall. The room features video conferencing capabilities for remote guest speakers as well as the ability for lecture capture.

Printing Room
Situated next to the IT Office, the Printing Room is a centralized location where students can print all their large format drawings/designs in house. It contains 2 large format printers. A Canon ImagePROGRAF with attached 40" wide scanner and an HP Large format plotter with attached 36" wide scanner. The room is available 24/7 for students to use.

IT Office
The IT Office is where you will find the dedicated on site IT Support person (Patrick Dussiaume).

Student Lounge
In the Student Lounge, students have access to a 70" LED TV with a separate HDMI input that can be used to display any device with the proper output.

Computer Lab
The main Computer Lab, also known as the IT Classroom, provides the students access to 35 high-end PCs with all relevant software used at the McEwen School of Architecture (see Software in Section 3). From here students can also print to any printer on site. The space is also equipped with a podium and projector that can

be used with the built-in podium PC or an VGA/*HDMI connected device to allow a class to be taught right in the lab. With the onset of new obstacles such as the need for social distancing (COVID-19) we have made our lab computers available for remote access so that students always have access to the resources they need to continue working effectively.

Architecture Library
Three iMacs are located in the Library and available to anyone to be used as look up stations. Furthermore, the following items can be signed out by students and faculty from the library:

- Projector Qty: 3
- Casio XJ-A246 Data Projector
- Projection Screen
- Traveller Portable Projection Screen (smaller)
- Traveller Portable Projection Screen (larger)
- Digital Camera
- Canon EOS 5D Mark III Camera
- Document Camera
- AverVision F50HD Document Camera
- Video Conferencing Camera
- AVer VC320 All-in-One Portable Conference Camera
- Tripod
- Cameron T310BH Tripod with Ballhead
- Chromebook Qty: 3
- Lenovo 300e Chromebook 2nd Gen MTK
- Drone
- DJI Mavic Air - Fly more combo (not currently available- we are still working on determining procedures for borrowing)
- Arduino Kits Qty: 16
- Elegoo Super Starter kit UNO R3 project
- DVD Drive
- USB-DVD Drive
- Blu-ray DVD Drive
- External Slimline blu-ray writer : Slimline USB 3.0 blu-ray & DVD RW drive

Telegraph Boardroom/Conference Room
The Boardroom (located in the Telegraph Building) is equipped with an integrated Polycom system with room cameras and microphones for audio/video conferences. Dual projectors and screens can be used with the in-room PC or via HDMI and VGA inputs. This is the MSoA's main Conference Room, and is used by students, faculty for teaching, and School Council. It is also a popular room to rent out to other organizations due to its downtown location.

Fabrication Lab
The Workshop's CNC machine is connected to a nearby PC for control and usage. This PC is also installed with all the Windows based software available to the students.

Laser Cutter room
The Laser Cutter room has four PCs, 2 of them directly accessing the laser cutters. These are installed with all of the required software for the operation and use of these devices. Two 3D printers are situated nearby along with a PC for operation.

Photo Lab
In the Photo Lab an iMac is available with design software so students can work with the photos they are taking.

Penthouse
The Render Farm is hosted on one of the two IT Datacenters situated in the Penthouse on the top floor of the School. The Render Farm itself comprises a blade center with 12 computation nodes accessible directly from software in the computer lab.

Software
Students, faculty and staff of the MSoA all have access to the University's full suite of software such as G Suite for education and Adobe Creative Cloud. In addition to this is the Computer Lab with all the necessary software for students to complete their work.

Computer Lab - 35 high-end PCs running Windows 10 (also included on the iMacs located throughout the School)

Available software:
- MS Office
- Adobe Creative Cloud
- Acrobat, Photoshop, Illustrator, InDesign
- Rhino3D v5 & v6*
- Grasshopper
- RhinoCAM
- VRay for Rhino*
- Autodesk Revit
- ArcGIS
- ArcGIS Pro, ArcMap, CityEngine
- Sketchup
- DesignPH
- eViews & SPSS
- Antidote

Fabrication Lab (5 PCs)
- PC with Windows 10
- Rhino3D v5 & v6*
- Grasshopper
- RhinoCAM
- VRay for Rhino*
- Autodesk Revit
- Sketchup
- DesignPH

3.6 Space and Technology Resources

*Both Rhino and VRay are installed using a 'floating license' model. This allows the software to be installed on any number of computers but limits the total number of simultaneous uses to the amount of licenses: 60 licenses for Rhino, 44 licenses for VRay (12 dedicated to the Render Farm)

Additional Technologies
In addition to the specialized printers mentioned, there are also 4 color laser printer/scanners in the following locations: inside the Library, outside the Computer Lab, in the Telegraph building Photocopy room, and in the Main Administration Office. There is also a 70" LED LCD Touchscreen Display/Television on a movable stand that can be used wherever it is needed.

AV equipment is available for students, faculty and staff to sign-out and can be procured from the Library. This equipment includes 4 projectors, an HDMI document camera, portable Blu-ray player, a high-end digital camera with various lenses.

Network
The School is connected to the main Laurentian University campus using a 10Gb dark fiber. The main campus is serviced by a 2Gbps commodity Internet connection with access to the ORION/Canarie network via that same link. Desktops and end-points at the School are serviced by GbE network connections. Wireless services are available at the School using the University's 802.11n/ac network and includes secure access via WPA2.

McEwen School of Architecture. Photo: Bob Gundu.

3.7 Information Resources

> *The Program must provide ample, diverse, and up-to-date resources for faculty, staff, and students to support research and skills acquisition. The Program must demonstrate that all students, faculty, and staff have convenient, equitable access to literature and information resources that support professional education in architecture and access to librarians, visual resource, and information technology professionals who provide services, teach, and develop skills related to each of these resources.*

3.7.1 Library Collections, Digital and Visual Resources

It is the mission of the McEwen School of Architecture Library to support the information needs of the faculty, staff, and students of the School of Architecture; to collect, organize and make available information in many formats, as detailed in the MSoA *Collection Development Policy*, in support of the study of Architecture and related topics; to support the general research interests of the faculty; to provide access information resources beyond the Architecture Library including the Laurentian University Library & Archives and other campus libraries at Laurentian as well as through interlibrary loan and digital resources sharing and through the Greater Sudbury Public Library; to provide efficient and appropriate user services; and to stay abreast of trends and best practices in the broader world of architecture librarianship that can be applied locally in the Architecture Library.

The Library's hours of operation are as follows:

Monday-Thursday: 9:00 am - 8:00 pm
Friday: 9:00 am - 4:30 pm
Saturday-Sunday: 1:00 - 5:00 pm

Reference services are available Monday to Friday from 9:00 am to 4:30 pm, either in person, by email or telephone (based on the schedules of the Librarian and Library Assistant).

The Library is also supported by the Ask chat service, a collaborative virtual reference service in French and English, provided by library staff at participating Ontario Universities. This service is available 67 hours per week during the academic term, including evenings and weekends along with shorter hours during the Summer.

The Architecture Librarian offers information literacy instruction sessions at the request of Faculty members in addition to '*Lunch & Learn'* sessions offered throughout the term, on topics relating to database searching, citing, and using Zotero. Each Fall, library orientation is offered to faculty, staff and graduate students.

Subject coverage
The Architecture Library contains approximately **7,149 volumes**, of which 3,848 fall under the Library of Congress *NA* call number (Architecture) range, with an additional 760 volumes with an *NA* call number housed in the J.N. Desmarais Library on the main campus. **This totals 4,608 of our intended goal of 5,000 NA volumes (as of August 2020 and we are still purchasing)**. Retaining a collection of lower circulating materials on the main campus allows for adequate space to grow the collection downtown. Any item deemed particularly important or commonly circulating is easily transferred to the Architecture Library.

The Library continues to acquire new and select retrospective materials based on the School's curriculum and the School's bilingual and tricultural mandates. The Library frequently receives suggestions for titles to purchase from the Faculty in support of their courses. The Library also continues to regularly receive donations of materials that complement the collection. The research guide includes links to lists of new books in the Library each month.

Race and Architecture Initiative
In an effort to support the Black Lives Matter movement, diversify the collection and offer a variety of perspectives, the Library collaborated with Faculty to select over 22 titles for purchase. These titles were identified using a bibliography on Space and Race organized by a group of academics sharing similar values. The library will remain committed to diversifying its collection moving forward.

Electronic Resources
The architecture research guide, available through the main Library's site outlines the collections and electronic resources related to the Architecture Library. From here students can access the following databases that particularly support the discipline of architecture:

- Avery Index to Architectural Periodicals
- Art & Architecture Source
- Artstor Digital Library
- JSTOR
- GreenFILE

Laurentian Library & Archives subscribes to multiple ebook suites that include ebooks related to architecture. Laurentian community members have access off-campus to all online resources through proxy access.

Materials Library
As an aspect of our Program's emphasis on Design-Build activities - and hence materials - the Architecture Library has developed a small, reference collection of core architectural building materials samples. The Materials Collection introduces students to a range of materials that can be used in the design and construction of the built environment. The Materials Collection is organized by the Construction Specifications Institute's MasterFormat to familiarize students with industry standards before entering the design profession.

3.7 Information Resources

Rare Book Collection
The Rare Book collection consists of special editions, rare or unique publications, materials of recognized value, materials that are in fragile condition or any other materials requiring controlled access. This collection consists primarily of donated materials with the majority acquired as part of the large donation from the estate of French-American, Bauhaus-trained, architect Jean Paul Carlhian.

Book Donations and Gifts
The daughters of Jean Paul Carlhian were generous in donating their entire family library to the MSoA, which included architecture and landscape architecture books, architectural history, monographs, and personal papers in both French and English. In addition to the Rare Books mentioned above that form part of the Carlhian Collection, the Architecture Library has catalogued and shelved much valuable material as part of their donation. Over the past seven years, the MSoA has benefited from other generous donations of book collections, including the Janna Best donation (on behalf of she and her husband Henry Best) with excellent material on the Group of Seven, and a new Frank Lloyd Wright donation of original material (books and photographs) from a patron in Wawa, Ontario. The Architecture Library has also been the recipient of two $5,000 donations from the Rotary Club of Sudbury. Other donors have given the Library various book gifts on a regular basis since the inception of the School, indicating wide community support for our initiative.

Media Collection
The Media collection includes videos from 2 film series as well as relevant videos to support courses. There is also a DVD and Blu-ray drive available for loan.

Theses Collection
The Architecture Library houses Master's theses in print that are available for consultation. Additionally, electronic versions are deposited and available open-access through Laurentian's institutional repository, *LU|ZONE|UL*.

Interlibrary loans
Any materials not available through the Laurentian University Library & Archives system can be requested through interlibrary loans. Requests for materials are submitted online using the interlibrary system, RACER. The service is staffed by the main Library and there is generally no fee to the user as the Library pays for the majority of the costs. Interlibrary loan requests are also analyzed and can be used to inform acquisitions, especially requests for newly published materials.

Policy statements
The acquisition of materials for the Architecture Library is governed by the *Collection Development Policy*. This document is regularly reviewed and updated by the Architecture Librarian to reflect the School's curriculum, faculty research interests, and architectural trends. Laurentian University Library & Archives has joined OMNI, an outcome of the Ontario Council of University Libraries (OCUL) Collaborative Futures initiative, along with 14 other Ontario Universities. This will result in a new academic search tool, library system, and the adoption of the same borrowing policies across member institutions. Implementation is scheduled for December 2020.

3.7.2 Staff

Structure
The Architecture Library is a branch library of the main Laurentian University Library & Archives. As such, the Architecture Librarian reports to the University Librarian and is a voting member of the Library & Archives Department as well as the Library & Archives Council. The workload of the Architecture Librarian includes work on behalf of the University Library & Archives, in addition to responsibilities related to the McEwen School of Architecture Library. Situated in the McEwen School of Architecture, the Architecture Librarian is in regular contact with the MSoA Director on academic matters that pertain to the Library and the School of Architecture. The Librarian attends most School of Architecture faculty meetings as well as the Cultural Committee and is considered a part of the School's educational team, with the previous Architecture Librarian having served on several Faculty Search committees as a voting member.

Numbers
There is sufficient staff to successfully manage the Architecture Library collection and services. The Librarian (Jennifer Ross) and Library Assistant (Dorothy Robb) provide services Monday to Friday from 9:00 am - 4:30 pm and student assistants provide weeknight and weekend coverage. The Library has been successfully securing LU work-study funding each year to subsidize the cost of hiring one student assistant. The Library has enjoyed little turnover in student workers, with the same students returning to work at the library year by year. So far we have exclusively hired architecture students to work in the library and most student assistants are bilingual.

Technical services, including acquisitions processing and cataloguing of materials are provided by the main University Library. Materials are sent between libraries through inter-campus mail three times per week.

Professional status
Jennifer Ross is the current Architecture Librarian since May 2019, on a limited-term appointment until December 2020. Jennifer has previously worked on a contract as the French Services Librarian at Laurentian and as a Librarian at the Northern Ontario School of Medicine (NOSM). She has also worked as a Library Technician at Cambrian College and as a Branch Assistant at the Greater Sudbury Public Library. She holds a BA from Laurentian University, an MA from McMaster University, and a Master's of Library & Information Science (MLIS) from Western University.

As a member of the Laurentian University Faculty Association (LUFA), the Architecture Librarian has faculty status; as such, 40% of her work is devoted to professional librarianship, 40% to research, and 20% to governance. There was a position description when Jennifer applied for the position and subsequently, she received her workload summary from the University Librarian, which details her work.

Support staff
In 2016, Dorothy Robb was hired as the full-time Library Assistant for the Architecture Library, having previously worked for 9 years as a Library Assistant at the Laurentian University Library & Archives. The Architecture Librarian coordinates the day-to-day work of the Library Assistant, though the Assistant reports to the Manager of Operations of the University Library & Archives. There was a position description when Dorothy applied for the position. She has audited two courses at the McEwen School of Architecture for professional development purposes.

3.7.3 Facilities

Space
The Architecture Library is located on the second floor of the School's Cross Laminated Timber (CLT) wing. The Library is accessible by stairwell and elevator and is on the same floor as three of the six studios and the majority of faculty offices. The Library is approximately 4,850 square feet and is ample size. The Library is heavily used during term as it is an attractive and inviting space. It is the only room in the entire complex of architecture buildings that is carpeted, and interestingly, the carpet has a pixelated graphic of the Sudbury impact basin. The Library is a dynamic space. Throughout the year, the Library hosts various *Lunch & Learn* sessions, exhibits materials and relevant books from the collection in conjunction with School events, and showcases student's design work. The Library also organizes displays in promotion of the McEwen School of Architecture's Lecture Series, curating a display of books and articles for each speaker, highlighting their work and the work of their firm. As an aside, many lecturers have donated books on their work to the MSoA to be housed in our Library.

The system for heating and ventilating the Library works well. There are no special environmental controls for the collection, however the print collection resides in the interior of the Library and is not overly exposed to sunlight.

The MSoA also benefits from the use of the main University Library, with extended hours, along with other libraries on campus. The main branch of the Greater Sudbury Public Library is a five-minute walk from the McEwen School of Architecture and offers helpful resources, particularly a local history collection. During the fall term each year, the staff of the Greater Sudbury Public Library visit the Architecture Library and stage a "Pop-up Library" for the first year class, highlighting aspects of the public library's collection and providing the opportunity to sign up for a library card.

Equipment
When the Architecture Library was originally designed, the administration determined there was no need for an archive or rare book room. While this decision allowed for a more robust seating plan, the rare book collection that has developed as a result of generous donations, is *not* housed in a darkened room with humidity controls. Likewise, the decision to repurpose library shelving saved the institution funds, but the shelving itself is quite shallow, making it more difficult to shelve oversized books. These are both issues to address moving forward.

There are three public access computers near the entrance of the Library, one of which is oversized and positioned at a lower, more accessible height. Adjacent to the Library is the computer lab with thirty-five workstations. There is a colour printer in the Library and another outside the Library's entrance. The Library loans out the School's audio-visual equipment, including data projectors, portable projection screens, a digital camera, a video conferencing camera, a document camera and a tripod. The Library's equipment collection also includes three Chromebooks available for loan.

With the help of a professor, the Library is developing a physical computing collection in support of the digital fabrication course. The Library has 16 Arduino kits available for loan and hopes to add to this collection to further support the course but also allow anyone to borrow these items as needed for projects or play.

Furnishings
Each library staff member has a desk with a computer and there is a dedicated computer workstation for circulation at the front desk and a Bibliotheca self-check kiosk available to the public. The electric supply, heating and ventilation are sufficient. The library is well lit, with a lot of natural light from the south-facing floor to ceiling windows at the south end of the Library, however it can get quite warm in that sitting area, even with its full operable shades.

The Architecture Library is configured with eight alcove-styled carrels for one or two individuals each, as well as long maple tables with caster seating, which can accommodate up to seventy (the typical class size at the School of Architecture). The informal lounge seating at the south end of the library, with a small couch and comfy chairs is conducive for quiet reading, informal discussions, and even public events.

3.7 Information Resources

McEwen School of Architecture Library. Photo: Bob Gundu.

3.7.4 Library Statistics Report

The APR must include: a library statistics report

McEwen School of Architecture Library Statistics, 2020

Types of Collections	No. of Volumes	Expenditures		
		Budget before last year **2018-2019**	Budget last year **2019-2020**	Budget this year **2020-2021**
Books	7,149	$35,000	$25,000	$30,000
Periodical subscriptions	22 subs. + donations = 2,683 issues	$4,000	$4,2000	$4,5000
Other serial subscriptions = databases	3 (Avery, Art & Arch., Artstor)	$24,700	$25,100	$25,700
Microfilm reels				
Microfiche				
Slides				
Videos	80			
Drawings	14			
Photographs	32*			
Other (specify)	235			
Totals	10,164	$63,700	$54,300	$60,200

3.7.5 Library Current Action Plan

> *The APR must include: A current action plan outlining recurring levels of staff support; renewal of hardware, software, equipment, and infrastructure; anticipated modifications to the current installation; and a demonstration of sufficient funding to execute the action plan.*

The Library maintains its integrated library system, including the catalogue, search tools and circulation system. By joining OMNI, the Laurentian community will have access to a new academic search tool with a modern interface and enhanced search features. The Library is committed to maintaining its e-resources and an adequate budget to support book purchases.

Information Technology is responsible for maintaining the computers in the Library and in the Lab adjacent to the Library and for providing access to the necessary software (see Section 3.6.4). The public printers inside the Library and immediately outside were upgraded during the Summer of 2019.

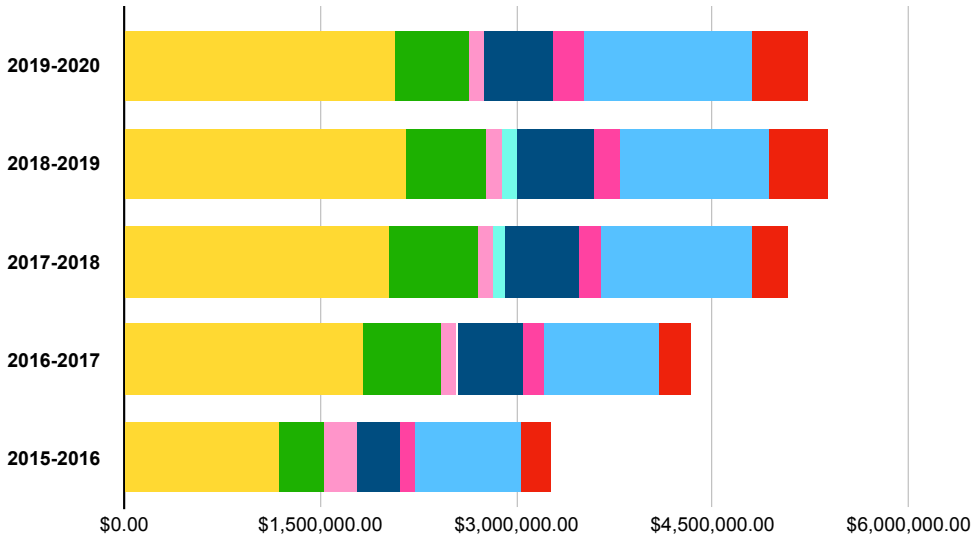
The equipment loaned by the Library includes a combination of equipment purchased by IT and the School of Architecture. The Library purchased 3 Chromebooks in Winter 2020 and is committed to maintaining the chromebook collection.

The School of Architecture maintains the Bibliotheca self-checkout machine and RFID gate, with the 5 year maintenance contract expiring November 15, 2021.

3.8 Financial Resources

MSoA Historical Budgeted Expenses

	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
Faculty salaries	2,077,141.58	2,148,598.49	2,023,120.86	1,827,829.48	1,185,428.88
Staff salaries	548,795.81	621,408.40	673,297.35	596,377.02	343,973.00
Sessional salaries	120,000.00	120,000.00	120,000.00	117,715.00	240,000.00
Other instructors/Teaching Assistants	-	100,450.00	100,000.00	5,400.00	8,888.65
Benefits	528,854.20	598,002.82	553,336.04	496,807.94	324,244.00
Faculty Prof. Allowances and Thesis Sup.	234,819.15	203,284.56	179,516.20	162,231.73	114,607.94
Expendables	1,294,910.34	1,140,759.83	1,149,319.09	889,085.13	814,861.09
Operational and other expenses	422,476.69	439,862.82	287,066.66	239,960.77	237,863.00
	5,226,997.77	5,372,366.92	5,085,656.20	4,335,407.07	3,269,866.56



3.8 Financial Resources

The project to establish the School of Architecture at Laurentian had an initial Capital Budget of 44.1 million dollars. As the 'Project Charter' was fulfilled, the Capital Budget was to be reconciled and then the School was to operate on an annual budget like other academic units at the University. The initial Business Plan for the School was contingent upon 4 years of the BAS Program at 70 students per year, for a total of 280 students plus a 2-year MArch Program at 60 students per year, for a total of 120 students. At full complement, our total student enrolment was projected to be 400. The operating budget for the School has been contingent upon meeting these numbers, which is not a small challenge when starting a new Program that is unaccredited. In particular, it is now evident that our Graduate numbers should be revisited based upon our MArch experience since 2018. For context, the below chart summarizes the total number of students enrolled in the Program since its opening in September 2013.

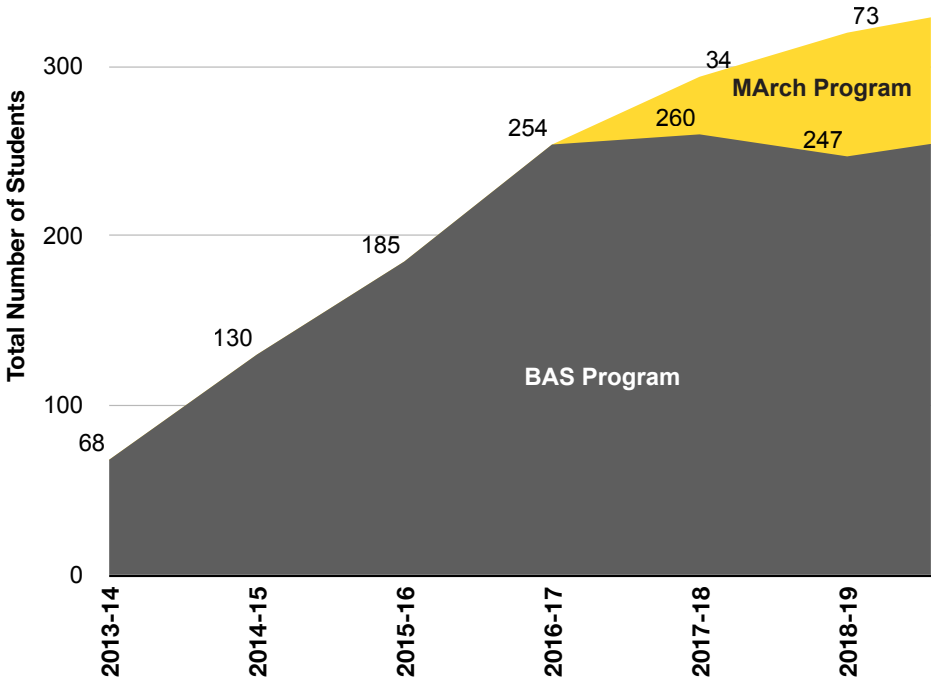
The Program must have access to sufficient institutional support and financial resources.
The APR must include:
• an itemized Program budget that includes operating and salary expenses

3.8.1 Details of the MSoA Program Operating Budget

Please refer to the charts on the opposite page that provide a summary of the MSoA Budget for the past 5 years from F2015-W2020. In addition to this information, the following text will be helpful to better understand the evolving financial context of our Program:

a) The initial Budget for the School of Architecture had two components: 1) a Capital Budget of $44.1 million dollars for the project of the building of the School (including a furniture and equipment budget); and 2) an initial Operating "Start-up" Budget, which the Administration determined through the Financial Officer, Norm Lavallée. Before we opened in 2013, our Operating Budget was based on an annual projection

BAS and MArch Enrolment by Academic Year (2015-2019, Fall Semseter Headcount)
MSoA Allocated and Spent Operating Budgets, including per student information.



Source: Laurentian University Tableau

3.8 Financial Resources

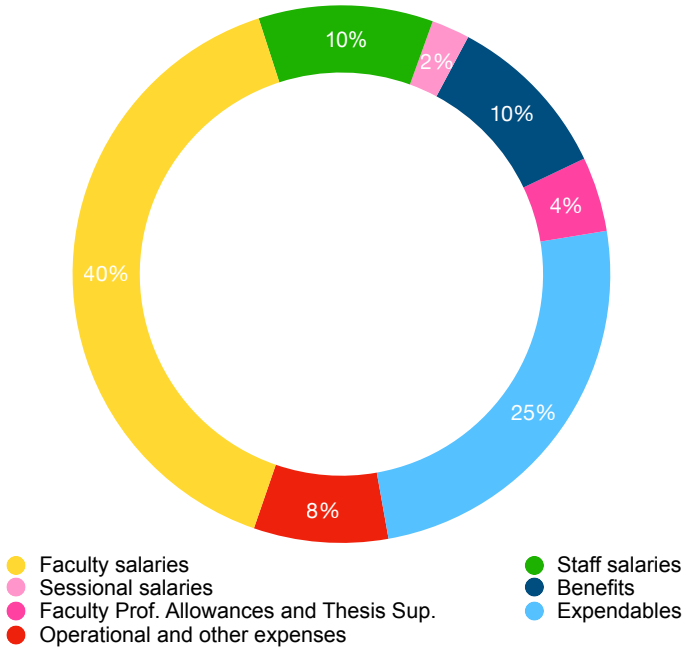
of growth. Only after the 2018-19 academic year did the School reach a "steady state" scenario (all 6 years of the Program enrolled), meaning that after that, our enrollment of students and staff and faculty numbers would be stable enough to extrapolate the next annual Operating Budget. This partially explains the change to the Budgeted Expenses after 2018-19. However, our student enrolment still increased from 2018 to 2019, with less budget allocated to all categories except for Expendables, that increased by approximately $150,000. Further spending is currently expected for 2020-21 (see below).

b) The table below illustrates the breakdown of MSoA expenses for the 2019-20 academic year. Of the total budget, the School had some discretion over approximately 8%, or $422,476.69. This includes operational expenses such as software, printing, supplies, professional fees, computer and equipment purchases, travel, and professional development. The 'Expendables' category includes the following: recruitment, IT staff salary and benefits, major computer purchases, and the various building expenses, including municipal taxes, utilities, cleaning and security. Scholarships are also included. The School does not have any direct control over spending in any of the categories other than the "Operational and other expenses" category.

c) On August 24, 2018, the Vice President of Administration at the University issued a 'Cost Containment' Memo (see Appendix I) that explained Laurentian's plans to accrue $4.9 million in targeted savings, with instructions for departments to halt spending for a list of items, including non-essential travel for conferences, consultant fees, food and drinks for meetings, and a freeze on filling all vacancies. Given the effects of COVID-19, this Cost Containment remains in effect. Thus, while the Program is now going into its third academic year in a steady state scenario (2020-21), the financial context for operations remains one of reduced spending. Dean Osman Abou-Rabia met with MSoA Director David Fortin in December of 2019 to emphasize the need for reduced spending, particularly in the areas of traveling and consultant fees, which was communicated to all faculty in January, 2020. The closing of the McEwen School facilities in March 2020 due to COVID-19 brought all travel and related spending to a halt.

d) Laurentian University currently operates with a centralized budget, with Operating Budgets determined by the Finance Office and allocated to Programs. Our model mirrors that of the Bharti School of Engineering who are also allocated a budget without seeing their revenue. In the case of the MSoA, as the Program is still growing and is up for accreditation, it is essential to see how our Budgeted Expenses relate to Revenues. In all but one year (2019-20), according to the Budget Report available to the Director through the LU WebAdvisor website, it appears as though

2019-20 Budgeted Expenses



we have had a surplus budget. However, without understanding our revenue, we are repeatedly explained that we need to reduce our expenses. This has been a concern of the School since its inception, especially in relation to staff and faculty hires that have been postponed, seriously affecting our ability to deliver such a culturally complex professional architectural curriculum, including an innovative Co-operative program.

e) The School of Architecture was generously gifted $10 million dollars in June of 2016 by Rob and Cheryl McEwen, which was renamed “The McEwen School of Architecture” in their honour. This amount was divided into $4 million to cover the remaining capital costs of construction, leaving $6 million towards a series of initiatives that support student and research activities related to the School’s vision and mission. The McEwen ‘Gift Agreement’ has specific bullets that the MSoA proposed, surrounding student experience in the north, Indigenous outreach and development, student scholarships, guest speakers, and working with wood and other hybrid technologies in the design field. These funds allow the MSoA to complement initiatives that grow out of the School’s curriculum or other research projects that meet the Gift Agreement. As part of the Gift Agreement, the University established the ‘McEwen International Advisory Board’ that advises the Director of the MSoA on issues related to the mission and vision of the School. In 2019-2020 faculty and the McEwen Advisory Board agreed broadly to a proposed plan for $2 million in spending by 2022 to enhance the MSoA Student experience. The $6 million is broken down into $1.5 million per year (for four years). Each year, $750k is allocated towards the McEwen School of Architecture endowment and $750k is to be used towards the focus areas of the Program. This donation has greatly influenced the autonomy of certain initiatives and finances (i.e. Graduate Travel Scholarships) given the overall budget reduction by the University.

f) In 2018, the University agreed to offer additional support for the School in 2 primary areas: Fabrication Lab facilities and, 2) experiential learning opportunities. These added funds were $100,000 (experiential learning) and $50,000 (technology, equipment) for 3 years for a total of $450,000. This has allowed the School to purchase equipment like the linear track for our robotics lab, as well as pursue a northern community outreach plan.

g) The School has been generating some revenue from the rental of our downtown facilities, through a cost sharing arrangement with the University’s Conference Services office, whereby the School receives 45% of total revenue. The first year of this arrangement had a much higher revenue as various events were booked into the building (weddings, funerals, various business and community events, etc.). While this was fulfilling the goals for the building to become a community hub of activity, faculty and students responded that the events were disruptive to the student experience, particularly when events were taking place in the Atrium and Crit Pit spaces, while students needed to move between their studio space and the Fab Lab. The School’s Cultural Committee drafted up a set of guidelines to prioritize the student learning environment and reduce conflicts, which has reduced our revenue as per the following: 2017-18 ($10,381.16); 2018-19 ($4,249.13); and 2019-20 ($4,005.00).

h) The current provincial government had begun implementation of a performance-based funding model prior to the current pandemic. The plan would have eventually resulted in 60% of university funding determined by performance on 6 metrics related to skills and job outcomes, and 4 metrics focused on economic and community impact. The plan has been placed on hold, but could significantly impact funding for the University and for the MSoA moving forward.

i) In the early years of the Program we initiated a student “Travel fee” due to the high cost of bus trips for Design Studio projects or other field trips related to mandatory courses. In some years, the travel costs exceeded the studio fees and so additional costs were absorbed by the Operating Budget. In response, we have raised our student Travel fees to better reflect the actual costs of class travel, as costs are higher in the north than if we were located in an urban centre.

j) As we knew from the onset, the costs surrounding a Design-Build culture are significant due to material costs and full-scale construction, and the cost of doing community design projects within a wide regional territory also requires extra resources. We have also implemented a way for students to pay for their material using the University card payment system.

3.8.2 Research Funding

While limited in how much funding the MSoA can provide for research grants, in the past, approval has been given in specific circumstances where faculty are the Principal Investigator or Co-Applicant of a major grant proposal (for example, $5,000 has been offered by the School for various faculty in order to support symposiums at the conclusion of the project as part their proposals). For exceptional circumstances, higher levels of funding have been offered.

For instance, to support Dr. Émilie Pinard's proposal to become a UNESCO Chair, funds were committed to by the MSoA [$7,500 for 4 seminars + 3 MArch student scholarships ($7,500) = $15,000 in total over 4 years], Faculty of Graduate Studies [2 GTA/year ($71,664) + field scholarship funds at $3,600 = $75,264], and the Vice President Research offered $30,000 for travel, materials or course release + $20,000 for Conference funds totalling $50 000 over 4 years. However, since the 2018 Cost Containment by the University, the MSoA has been told there is currently no University office authorized to provide cash contributions for research grant applications. Instead, faculty have been able to add in-kind funding only to their proposals. The majority of faculty research funding has thus been awarded by external sources only (see Section 4.4 Faculty Resumes). As mentioned in Section 3.5.5, faculty receive an $8K start-up grant (good for 3 years), and the opportunity to apply for a $5K Laurentian University Research Fund (LURF) that is usually granted for small scale research projects.

At the time of writing this APR, six MSoA faculty (out of 16 FTE) have been awarded Social Science Humanities Research Council (SSHRC) "Insight Grants" averaging $75K per researcher.

3.8.3 MSoA Endowments

The MSoA has recently benefited from the endowment afforded by the installments of our $6 million McEwen gift agreement ($3 million dedicated to endowments). The total amount endowed to date, including awards, is $1,811,462.49. In 2019-20, the McEwen Fund endowment interest gave the School $37,187.50 plus an initial $2,500 in 2019 for a total of $39,687.50. As this amount continues to grow to an anticipated maximum of around $60,000/ year (dependent upon interest rates), the McEwen endowment will allow us to continue to provide significant travel scholarships and other student opportunities in perpetuity. These types of commitments will continue to attract students while supporting the bi-lingual and tri-cultural nature of our Program. For example, in the Fall of 2019, for the second consecutive year, we offered all first-year MArch students (32) $1,000 for Travel Scholarships related to their respective studios. This $32k has to be aligned with the endowment fund so that we meet the available interest each year.

3.8.4 Laurentian University Scholarships

Laurentian University has a number of scholarships available to MSoA students that are listed on the University website (https://laurentian.ca/fees-financing/scholarships-bursaries). The University has a substantial Entrance Scholarship program that awards students of high academic achievement in high school as per below:

High-School Average: 80% - 84.9%
New GPA: 7.50 to 8.49
Academic Excellence Scholarships: up to $4,000 ($1,000 in 1st year, renewable in subsequent years provided average is maintained)

High-School Average: 85% - 89.9%
New GPA: 8.50 to 9.49
Academic Excellence Scholarships: up to $6,000 ($1,500 in 1st year, renewable in subsequent years provided average is maintained)

High-School Average: 90% - 94.9%
New GPA: 9.50 to 9.89
Academic Excellence Scholarships: up to $12,000 ($3,000 in 1st year, renewable in subsequent years provided average is maintained)

High-School Average: 95% - 100%
New GPA: 9.90 to 10.00
Academic Excellence Scholarships: up to $16,000 ($4,000 in 1st year, renewable in subsequent years provided average is maintained)

3.8.5 BAS Program Awards, Scholarships and Bursaries

In addition to the University-wide scholarships and McEwen endowment funding opportunities listed above, the McEwen School of Architecture has been successful in acquiring other generous gifts to the Program. Initial BAS awards were secured by the Founding Director, current Director and Faculty in coordination with the LU Advancement Office; this has grown to now allow for annual awards, scholarships and bursaries at both Undergraduate and Graduate levels.

Blaine and Lise Nicholls Design-Build Fund Award - The purpose of this award is to provide funding to a student(s), who is enrolled in the School of Architecture program and participating in the Design Build Studio. Recipient(s) will be selected at the discretion of the Director and will promote unique thinking, innovation and creativity. Value is variable. Application is required. (5 students at $1000 each);

Brook McIlroy Architects FNMI Student Bursary - Established by Brook McIlroy Inc. The purpose of this award is to provide financial assistance to a full-time indigenous student with financial need, enrolled in the School of Architecture at Laurentian University. Preference will be given to an incoming student. Value is variable (~$1,000);

Build North Construction Inc. Architecture Scholarship Annual Award - Established by Build North Construction Inc. The purpose of this award

is to provide financial assistance to a student of Laurentian University who is enrolled in the School of Architecture at Laurentian University. The recipient must be a student from Northern Ontario. ($5,000);

Club Montessori Architecture Scholarship - The purpose of the Club Montessori Architecture Scholarship is to provide financial assistance to one or two students who are entering the second year of the McEwen School of Architecture (MSoA) at Laurentian University. The recipient(s) must be of Italian descent and come from Northern Ontario. The scholarship(s) will be awarded to a student with a high GPA combined with the submission of a creative portfolio. One scholarship of $5,000 or two scholarships of $2,500 are awarded annually.

F. Jean MacLeod Architecture Scholarship - This scholarship is awarded annually to full-time students enrolled in Laurentian University's Architecture program. Preference is given to Francophone students who achieve high grades in their academic year. (4 students at $500-$1,500 each);

Fourth Year Studio Prizes - Funded by Soprema, these awards recognize the work of 4th year BAS students for various categories linked to their studio projects (Best systems integration, Best conceptual clarity, Best research process, Best inhabitability, spatial quality, Best material expression). ($450-500/ group of 5);

Fourth Year Studio Charrette - Funded by Villeneuve Financial Consulting, these awards are given to the best studio public installation projects. ($500/group)

JL Richards Architecture Design Prize - The recipient must be a first-year student enrolled in the Architecture program. The recipient will be selected based on his/ her design work throughout the academic year. The award will be presented during the year end banquet. ($200-250);

LUAA - TD Insurance Meloche Monnex Laurentian Architecture Bursary - Established by TD Insurance Meloche Monnex, the purpose of this award is to provide financial assistance to aid a student(s) of Laurentian University who is enrolled in the School of Architecture program. The bursary is awarded on the basis of demonstrated financial need. Preference will be given to an Indigenous student. Value is variable. Application is required. (7-8 students at $1,000-1,500 each);

Mary Bernardi Memorial Bursary - Established by Mary Rose Regina Bernardi. The purpose of this award is to provide financial aid to a student(s) at Laurentian University who is enrolled in the architecture program. The successful recipient of this award must demonstrate financial need. Preference will be given to a female student. Value is variable. Application is required. Preference given to female students ($750-$1,000);

McEwen School of Architecture Portfolio Design Awards - Awarded to current first year BAS students whose incoming application portfolios were graded as "High Plus" (H+). Donors for this award are Downtown Sudbury (Maureen Luoma, Executive Director), and Phil and Stacey Bernier. (5-8 students at $500 each);

Northeastern Ontario Construction Association Architecture Scholarship - This scholarship is awarded annually to one full-time student, who is a Canadian citizen or permanent resident, entering the first year of the School of Architecture at Laurentian University. Preference will be given to a student who demonstrates academic merit. Value of the award is $2,500. Application required;

Northern Ontario Society of Architects Award (NOSA) - Established by Northern Ontario Society of Architects. The purpose of this award is to provide financial assistance to a full time student, studying architecture at Laurentian University's School of Architecture. Preference will be given to a northern Ontario resident. Value is variable ($350-$400);

Ontario Association of Architects Annual Scholarships - Moving forward the OAA requests that the two annual scholarships in the amount of $2,000 each be awarded to two (2) individual students in any year of the undergraduate program to recognize exceptional leadership through design excellence combined with innovative approaches to sustainability in an assignment or project;

Rya and Eric Levitt Award - Established by LGA Architectural Partners in honour of Rya and Eric Levitt. The purpose of this award is to aid an Aboriginal student. Preference will be given to students entering their first year of study in the Architecture program at Laurentian University (~$4,000).

School of Architecture Founders' Award - An award created by the faculty and staff at the McEwen School of Architecture to recognize creativity and holistic well-being in design or landscape design. The prize will be awarded to a student(s) whose work celebrates Northern Ontario. ($750 - 1,500);

Scholarship for Black Excellence in Architecture - Undergraduate - This scholarship is awarded to a student who demonstrates leadership through their academic work that celebrates Black communities, culture, and design. ($1000);

BAS or MArch Program Award

Club Montessori Travel-Study Scholarship - The purpose of the Club Montessori Travel-Study Scholarship is to promote travel-study for a student of Italian descent who has completed at least their 3rd year at the MSoA. Selection is based upon the student's overall GPA as well as the quality of the travel proposal. If no student of Italian origin is eligible in a given year, then the scholarship will be deferred to award the following year. The recipient is expected to make a visual presentation to the Club Montessori during the semester following completion of their travel-study. ($5,000). BAS or MArch candidates are eligible.

3.8.6 MArch Program Awards, Scholarships and Bursaries:

Centreline Architecture Graduate Award - This student award is granted to a student enrolled in the MArch Program at the MSoA who has demonstrated an interest and/or strength in building technologies. ($500);

McEwen Graduate Awards - 3 awards of $1,000 for excellent thesis work representing key streams of the Program (Social Engagement, Craft and Technology, Sustainability);

McEwen Thesis Book Award - Awarded to the student(s) who demonstrate excellence in graphic design of their thesis book ($500);

MSoA Architecture and Society Award - Established by Kate Bowman, Blaine Nicholls and Terrance Galvin, and related to the Paul Harris Award for "service over self," this award acknowledges an MArch graduating student whose thesis design responds directly to a specific community's needs. Social awareness and design quality form the criteria for the award. ($500);

MSoA Faculty Award - Awarded for creativity and innovation in design in the MArch thesis project ($1,500);

Querney Family Thesis Scholarship - Established by the Querney Family. The purpose of this award is to recognize a student from the McEwen School of Architecture MArch Program. The student will be selected based on their academic achievement and thesis research work. Value is variable (~$500);

Rob and Cheryl McEwen Graduate Scholarships in Architecture - Awarded to top incoming MArch students. (3 at $5,000 each);

Rya and Eric Levitt Memorial Graduate Award - The purpose of this award is to aid an Aboriginal student (or students) in the Masters of Architecture Program at Laurentian University. This award will be based on the students' achievement with respect to their thesis project. ($500-1,500);

Scholarship for Black Excellence in Architecture - Graduate - This scholarship is awarded to a student who demonstrates leadership through their academic work that celebrates Black communities, culture, and design. ($1000);

TD Graduate Scholarships - Awarded to top performing MArch students. ($2,500);

The Yallowega Bélanger Salach Architecture Excellence Award - Recognizes a graduating student from the MArch Program. The student will be selected based on academic achievement and based on their thesis topic as it relates to Northern Landscape and Community-Design. The recipient will be announced on stage at convocation and may also be granted an internship opportunity in the year in which they receive the award. ($2,500);

Villeneuve Financial Consulting Masters of Architecture Scholarship - Established by Guy Villeneuve and Villeneuve Financial Consulting. This student award will be granted to a fourth year Laurentian University student entering their first year of the MArch Program in September at the McEwen School of Architecture. The recipient must be a top student who has successfully completed ARCH 4505FL and ARCH 4515FL ($500).

3.8.7 Government and FGS Scholarships Available to MArch Graduate Students

LU Faculty of Graduate Studies (FGS) Travel Scholarship - Open to all MArch students for travel related to research ($600);

Ontario Graduate Scholarships (OGS) - Application required to the FGS. Discussed in an annual meeting with the Faculty, based on recommandation (ranking) from the department. ($5,000/year for a maximum of 3 terms). **We have received a total of 9 OGS Scholarships to date**;

Social Sciences and Humanities Research Council (SSHRC) Scholarships - Application required. Discussed in an annual meeting with the FGS, based on recommandation (ranking) from the department. (~$17,500/year). **We have received a total of 4 SSHRC scholarships to date**.

3.8.8 LU Graduate Teaching Assistantships

At the Graduate Studies level, LU offers Graduate Teaching Assistantships (GTA) and Graduate Fellowships (GF) to select Master's students. In 2019-20, the combined GTA/GF for MArch students was $9,058.00 per student. A Graduate Teaching Assistantship (GTA) is the salary portion paid on a bi-weekly basis (total of $4,484), while the Graduate Fellowship (GF) portion is paid in one instalment ($4,574). The MSoA is currently awarded 10 GTA positions for its MArch students per year, and these are renewable for a second year of graduate study. It is worth noting that this number of GTAs is proportionally lower than most graduate programs at LU where students with a 75% or more typically receive a GTA. It is imperative for the University to offer GTA/GF packages for top incoming MArch students in order to remain competitive with other Graduate Architecture Programs within Ontario as well as nationally.

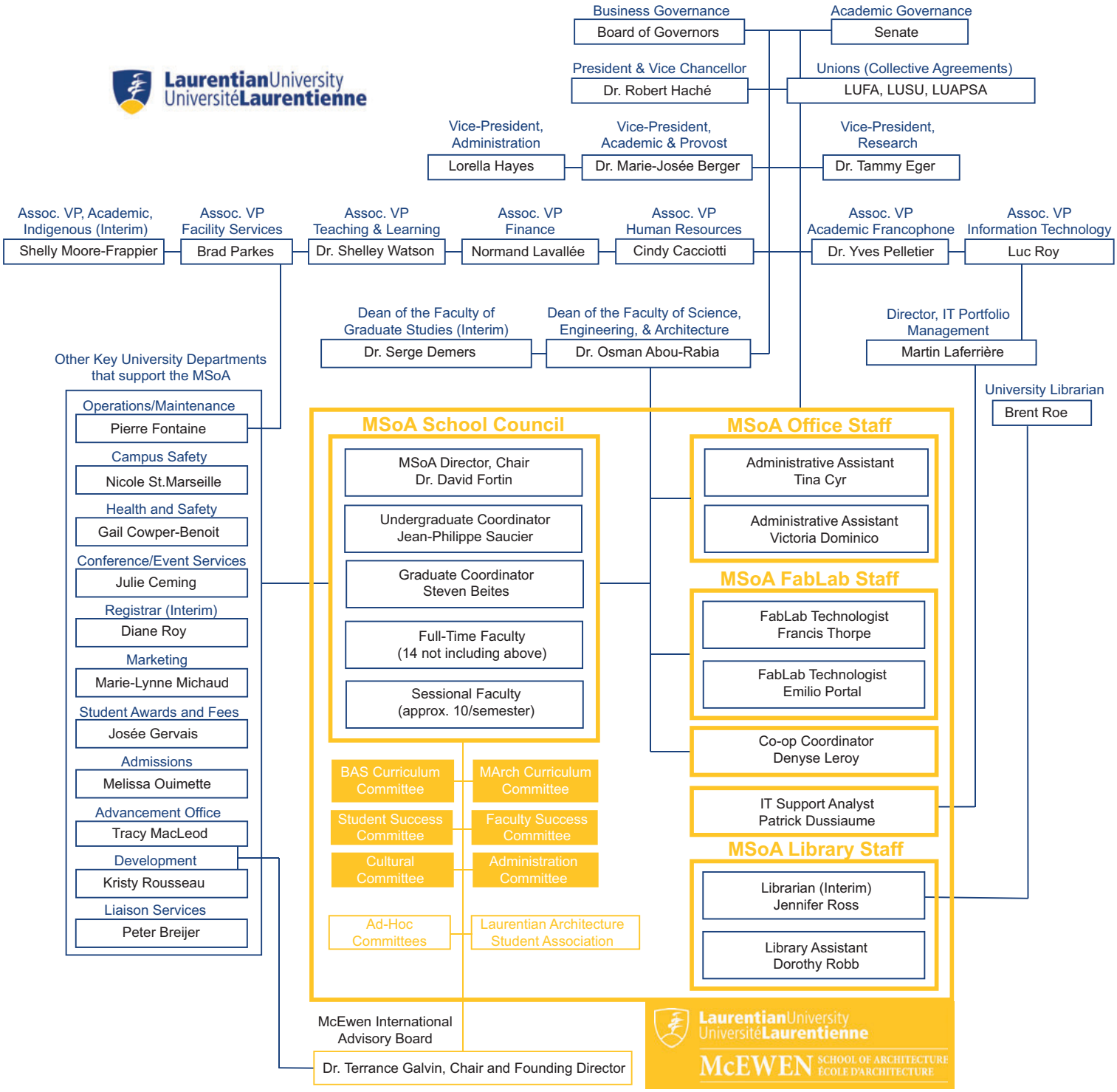
3.8.9 LU Development & Advancement Activities

In addition to the above listed items, the MSoA works with the Advancement Office to establish other initiatives to benefit the student experience in our Program. For example, the TD Bank agreed to sponsor our annual Warm-Up event where first-year student Ice stations are officially opened to the public. The event includes music and food and is intended to bring the community together to celebrate the student work. Similarly, the School has worked with University Advancement to obtain donations to support the MSoA "Building the Thesis Colloquium" which invites 3 outstanding recent MArch graduates from across the country to present their work to our thesis students. The inaugural event was funded by KPMB, Diamond Schmitt and EVOQ architects. RAW will also be contributing to the 2020 colloquium.

For our first three years, the School Lecture Series was sponsored by the LU Alumni Fund. This ended in 2016, at which point we paid directly for lecturers until 2018, when our annual 'MSoA Lecture Series' was (and is) sponsored by Tremco. Various other donors (eg. OAA, the Northern Ontario Society of Architects, RAIC, Bureau des affaires francopones, and Wood Works!) offer additional funds for specific lectures in the Lecture Series series as well.

Finally, the MSoA continues to work with LU Advancement in creating funding opportunities for our Program.

3.9 Administrative Structure



Administrative Structure of MSoA within Laurentian University. Comparison to Bharti School of Engineering, p. 126

3.9 Administrative Structure

The Program must be part of an institution accredited for higher education by the authority having jurisdiction in its province . The Program must have a degree of autonomy that is comparable to that afforded to the other relevant professional programs in the institution and sufficient to ensure conformance with the requirements of the CACB Conditions and Terms for Accreditation.

The APR must include:
• a description of the Program's administrative structure, a comparison of this structure with those of other professional programs in the institution, and a list of any other programs offered if the Program is part of a multi-discipline unit .

3.9.1 MSoA Governance Structure

Laurentian University is an accredited postsecondary education institution and member of Universities Canada (www.univcan.ca). The structure of the McEwen School of Architecture follows the other three academic units under the Faculty of Science, Engineering and Architecture (SEA), including the Bharti School of Engineering (for a visual comparison, refer to administrtaive structural diagrams on pages 124 and 126), the School of the Environment and the Harquail School of Earth Sciences. Much of the governance of the MSoA is covered under the LUFA *Collective Agreement*. For instance, Section 9.10 of the *Collective Agreement* clearly outlines the roles and responsibilities of the Director, including the collective process for electing and renewing Director terms. Consistent with all departments in our institution, Directors serve 3-year terms, renewable once for a total of 6 years. As Chair of the MSoA School Council, the MsoA Director reports to the Dean (Dr. Osman Abou-Rabia) who reports to the VP Academic and Provost. The Director is considered the representative of the School and its faculty members and is, like them, also a member of LUFA. The Director sits on the SEA Faculty and Executive Councils, as well as Standing and Ad Hoc University Leadership Committees. MSoA faculty sit on School Committees, Faculty Council, Senate, FPC Committee, Tenure and Promotion Committees, and the Faculty of Graduate Studies Council.

Consistent with other departments within the Faculty of SEA, all faculty members, including the Director, submit their Annual Reports directly to the Dean. The Director also submits an academic unit Annual Report to the Dean with academic unit updates and concerns, as well as faculty highlights. Please see chart (p.124) for a better understanding of our governance structure. This is comparable with the Bharti School of Engineering as another professional program in our Faculty (p.126).

Regarding School governance, Section 9.10.2.(a) of the *Collective Agreement* states that a primary responsibility of the Director is:

> (a) To ensure that the Department/School has a constitution that clearly delineates a transparent and collegial decision making process for the unit and that is consistent with this *Collective Agreement*.

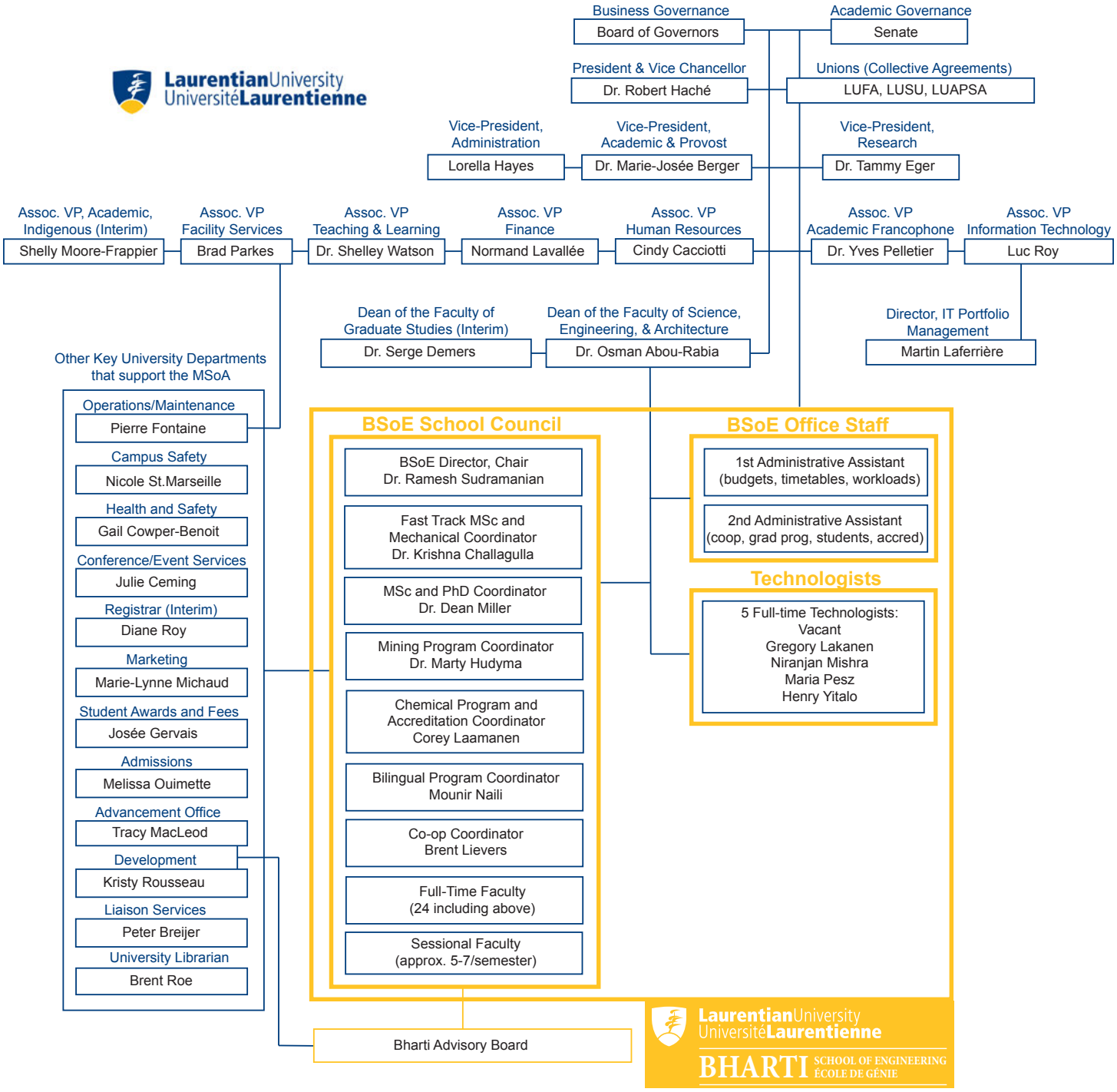
The MSoA School Council began developing the MSoA Constitution, which outlines how we intend to conduct School of Architecture business, and this was ratified in August of 2020. The MSoA Constitution includes clarification and policies related to the following: roles (including the Director, Program Coordinators, and Studio Coordinators), faculty workloads, meetings, membership and eligibility to vote, voting procedures, Standing Committees, accountability and reporting, and confidentiality. The *MSoA Constitution* is included in Draft form in Appendix L.

3.9.2 School Autonomy

The MSoA has had full autonomy in terms of the subject matter of the professional Program, in part due to the University having confidence in its professors and administration in knowing how to guide the Program through the various accreditation conditions, including the SPCs. The previous and current Presidents of the University have been strong advocates of the MSoA and its mission. Despite its many challenges, the introduction of design-thinking to Northern communities through a professional architectural program has already proved to be a significant success.

There are several mechanisms for the School to move policies and curricular items through the approval process each year (in both languages). MSoA School Council votes on all major decisions, policies, and curricular changes, which then must move through various Faculty and University committees for discussion and approval before implementation. Undergraduate and Graduate Program Coordinators have the ability to administer various processes related to the degree programs, and work with the Director, MSoA staff, and relevant colleagues on campus for issues related to things like admissions, course registration, exams, and student awards. We have been able to develop our own *BAS Academic Policy* (Appendix J) our *MSoA Constitution* (Appendix L), and have control over our curriculum as well as use of our space. There are some areas where we must collaborate with other

3.9 Administrative Structure



Administrative Structure of the Bharti School of Engineering within Laurentian University. Comparison to MSoA, p. 124

departments on the main campus (such as Admissions, Advancement and Conference Services). In each of these cases, we establish our requirements and then work with the various offices to ensure everyone's goals are met. For instance, we set the maximum number of incoming BAS students, however, the process of sending the offer letters is guided by the Admissions Office, not the MSoA. Similarly, our revenues from rental of our building were much higher before we saw some conflicts with the use of the space that were negatively impacting our student experience, so we worked with Conference Services to establish some parameters.

While the School is allocated an annual Operating budget by the University Administration with budget codes, there is currently limited transparency. In April of each year, there appears to be a surplus in the amounts allocated, which gets returned to Finance, and yet we are told consistently that we are under budget constraints. In seven years, we have never seen the allotted budget in relation to the School's revenues which makes it difficult in determining projected budget cuts or why hiring freezes or refusals continue for our unit. As presented in Section 3.8, the University is still developing the overall financing of our Program as part of a long term plan. This causes some concern, especially since our financial success is dependent, in part, on how entrepreneurial we can be as a School. Furthermore, the University issued a 'Cost Containment' memo in 2018 that has remained in effect, which restricts nearly all unnecessary spending. This has resulted in the Director needing to request permission for any substantial discretionary spending. With the current uncertainty surrounding COVID-19, this is still unfolding from a financial point of view. All of this continues to obfuscate our actual revenues versus expenses in terms of overall Operating Budget.

Regarding autonomy over curriculum and teaching, the LU *Collective Agreement* is specific regarding each professor's 'academic freedom,' so much of our content is governed by that. Many of the 11 CACB Conditions (not including the SPCs) have overall been well-supported, including faculty and staff recruiting and hiring, Human Resources, Physical Resources, etc. Financial stability is always a question of enrolment, which is difficult to predict in an architecture program, so this is a concern moving forward, though we continue to see steady growth. Cutting or delaying some hires as a result of projected enrollment is directly linked to this concern (see Section 3.5.1.3 - Full-time Faculty and Sessional Overview). As well, the web presence at the University has historically not allowed us to showcase our faculty research or student work properly, which has impacted our Public Information. We have spent the past year working with a local web design team to address this concern and are confident that the improved web presence of the MSoA will be a strong recruitment and retention tool.

Finally, securing the McEwen Gift Agreement of $10 million was significant with regard to certain levels of autonomy in supporting Program initiatives and student enhancement. While the McEwen funds are not to be used for regular Operations that should be covered by the University, the remaining portion from the McEwen gift ($6 million) has allowed us to pursue and expand much of our student experience and community project goals. During the Fall 2019 and Winter 2020 academic semesters, the School Council and the McEwen International Advisory Board approved a basic plan for spending $2 million of our gift funds to support the MSoA's mission. While many of these initiatives have started, the biggest obstacle we face is lack of faculty capacity to administer them currently. In order to develop the various initiatives that the School wants to achieve, we continually need to revisit our current staffing situation (see Section 3.5.2 - Support Staff).

3.9.3 The McEwen International Advisory Board

Laurentian University has four academic departments that have received donor gifts, including the MSoA.

The "Terms of Reference" for the International Advisory Board to the Director at the McEwen School of Architecture follow. The purpose of the Board is to provide insight and advice regarding the success of the McEwen School of Architecture (MSoA). In our first two years, the Board has given invaluable advice and guided the School in various visioning strategies that would lead the School not only to pursue local and northern issues, but also to situate our teaching and messaging of the School within a global context of being unique, working with wood, being leaders in Indigenous thinking regarding life and environmental issues, and marketing ourselves to our strengths – both existing and potential.

The Board also advises the School on the 'McEwen Gift Agreement,' a fund that allocated $10 million dollars to Laurentian University: $4 million went towards capital to complete the building complex and project (44.1 million) and $6 is devoted to the bullets itemized in the Terms of Reference. This fund is further divided into $3 million for perpetual endowments towards scholarships, etc. and $3 million to spend on various initiatives led by the MSoA. The McEwen Gift Agreement has allowed the MSoA to have a certain financial autonomy with regards to student enhancement (i.e. graduate Travel Scholarships) as well as funding for specific projects by faculty.

The sixteen McEwen International Advisory Board Members are listed following the Terms of Reference (TOR). Our first Board Meeting took place in November of 2018.

3.9 Administrative Structure

Terms of Reference

Purpose

The International Advisory Board to the Director of the McEwen School of Architecture provides high-level strategic advice relating to and ensuring the long-term goals and success of the School.

The Advisory Board and its members provide insight, ideas and resources to assist the School in developing strategic initiatives to advance the well-being of society through excellence in teaching, research and service, to exploit the rapidly changing technical world of architecture, and to foster closer ties between the School and its various community constituents.

Composition

The International Advisory Board consists of 12 to 15 members who are representative of external stakeholders and university leadership. Selection of board members will take into account the School's unique mandate to provide learning opportunities in English and French with a comprehensive approach to Indigenous education. The board composition should reflect the geography of the north as well as that of Canada and abroad. The board is committed to the principles of equity and diversity and aims to include Indigenous members, Francophone members as well as members of other equity seeking groups including women, racialized persons, persons with disabilities and persons of all sexual orientations and gender identities/expressions.

External members are appointed to a renewable 3-year term by the Director of the McEwen School of Architecture in consultation with the Chief Advancement Officer. A permanent seat is provided for an appointee by the McEwen family. The Director of the McEwen School of Architecture, the Dean of Science, Engineering and Architecture, the Founding Director of the McEwen School of Architecture and the Director of Development are also members of the International Advisory Board. The Founding Director of the McEwen School of Architecture will chair the International Advisory Board.

Role

• Provide advice regarding new initiatives and long-range goals, to more effectively respond to the emerging needs of architects, designers, and their employers;
• Serve as a communications bridge and "think tank" to connect the School with other sectors of the community and to animate a dynamic exchange of ideas so that the School may best contribute to the changing needs of architecture and society;
• Review currency of programming and research agendas, providing perspective on expectations of graduates and emerging architecture challenges, and offer feedback on existing programs and research;
• Advocate for the School (within industry, relevant government agencies, professional societies, etc.), actively opening new avenues of community engagement, collaboration, research and knowledge dissemination;
• Promote the School publicly, through sharing an understanding of the School and its programs while celebrating its achievements;
• Develop good relations between the School and the global community and relate the priorities and concerns of particular communities to the School;
• Aid the School in its efforts to secure the resources required to be internationally competitive in attracting and retaining excellent faculty, staff and student;
• Individually partner with the School as guest lecturers, seminar participants, career advisors, etc., when relevant;
• Use personal contacts to enable faculty and students to gain work-place exposure (particularly co-op exposure), with particular focus on emerging trends and practices in global design;
• Assist the School in networking with northern community projects and initiatives in order to better educate Indigenous and northern students;
• Annually review and provide advice to the Director with regard to the expenditure of undesignated private sector gifts and endowment disbursements.

Selection of the Initial McEwen International Advisory Board

The composition of the Board includes architects, an engineer, entrepreneurs, a graphic artist, a filmmaker, an architecture critic, educators and a Paralympic athlete as well as a Métis Elder. Representation on the Board was drawn from Francophone and Indigenous backgrounds in keeping with the LU tricultural mandate. Our extraordinary first Advisory Board to the MSoA includes Sudbury-born Jason McLennan and Bruce Mau, both of whom have contributed to the global discourse on design, and both influenced by their roots in Sudbury. It also has two Order of Canada (OC) members, Rob McEwen and Marianne McKenna. Board Members who have been awarded Honourary Doctorates from LU include Bruce Mau, Blaine Nicholls, and Marianne McKenna. The Board convenes twice annually for MSoA Board Meetings, usually in Sudbury.

See the following page for a list of current Board members.

Advisory Board Members
2018-2021

ABOU-RABIA, Osman (Dean, Faculty of Science, Engineering & Architecture, LU)

DENIS, Juliette S. (Elder and Advisor, McEwen Int. Advisory Board)

FORTIN, David (Director, McEwen School of Architecture, MSoA)

GALVIN, Terrance (Chair, McEwen Int. Advisory Board, and Professor, MSoA)

HANSEN, Rick (CEO, Rick Hansen Foundation, Vancouver)

LICKLEY, David (Lickley Productions Inc., Filmmaker, Sudbury)

MAU, Bruce (Chief Design Officer, Freeman, and Massive Change Network, Chicago)

McEWEN, Rob (OC, Chairman, McEwen Mining Inc., Toronto)

McEWEN, Cheryl (Founder, Make My Day Foods Inc, and MSoA Benefactor, Toronto)

McKENNA, Marianne (OC, KPMB Architects, Toronto)

McLENNAN, Jason (McLennan Design, Bainbridge Island, Washington State)

NICHOLLS, Blaine (Adjunct Professor, MSoA, and LU original Steering Committee)

ROCHON, Lisa (CityLab and Architecture Critic, Toronto)

ROUSSEAU, Kristy (Director of Development, Laurentian University (LU))

TAYLOR EUSTACE, Dee Dee (Taylor Hannah Architect, Toronto and NYC)

WAUGH, Alfred (Formline Architecture and Urbanism, Vancouver)

Original McEwen International Advisory Board, Inaugural Meeting, November 2018

3.10 Professional Degrees, and Curriculum

3.10.1 Specification Of Degree Offered

> *The APR must include:*
> • *specifications of the degree(s)offered;*

Since its inception, the McEwen School of Architecture has been guided by section 3.10 of the *CACB Terms and Conditions* (2017) that states:

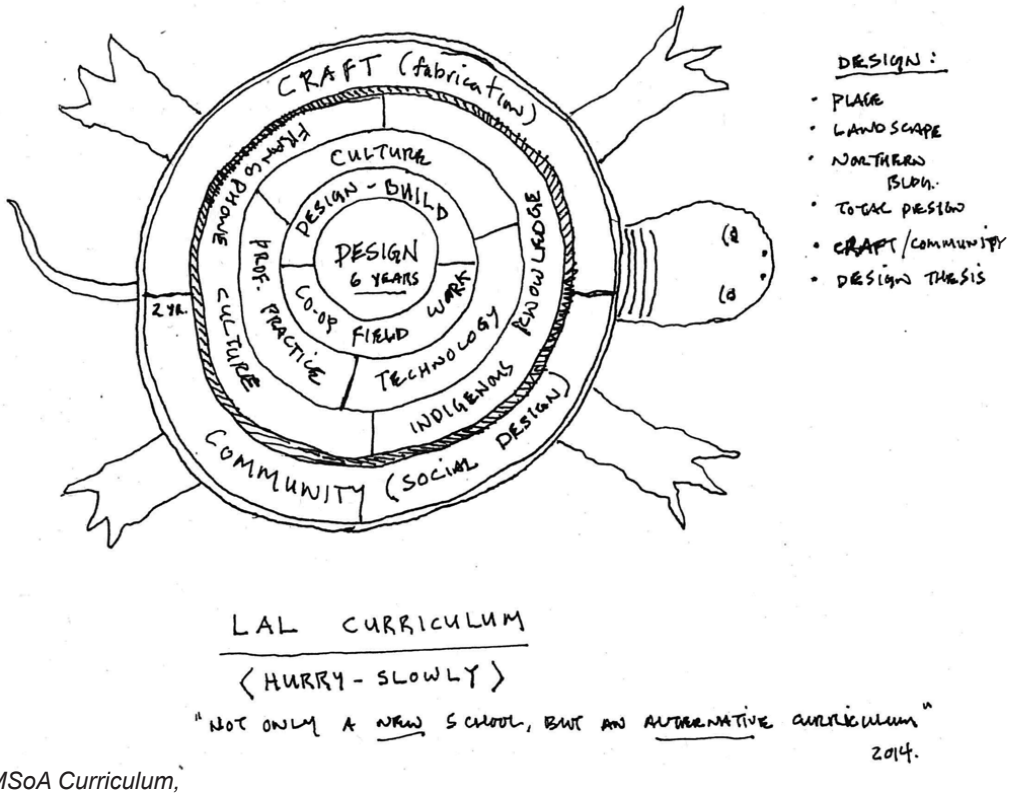
> *The CACB only awards accreditation to professional degree Programs in architecture. A CACB-accredited professional Program in architecture is defined as the totality of a student's post-secondary education culminating in a designated professional university degree, which may be a bachelor of architecture (BArch) or a master of architecture (MArch) degree. (T&C, p.10).*

The initial 4 + 2 structure of the overall Program: a 4-year Bachelor of Architectural Studies (BAS) Program, followed by a 2-year Master of Architecture (MArch) Program, was further developed in line with the following CACB description:

> *The Programs include...a minimum of five years of post-secondary study culminating in a master of architecture degree, which follows a pre-professional bachelor's degree…(T&C, p.10).*

This structure has also enabled the Program to integrate a Co-operative program within the professional degree program, both at undergraduate and graduate levels and also allowed us to include 8 Electives (24 credits) to broaden the student undergraduate experience. It has also guided us in the formation of the 25 core courses (96 credits) in the BAS Program for a total of 33 courses (120 credits). At the graduate level, there are 11 core courses (48 credits) in the MArch Program.

Our BAS Program also has the flexibility to allow students to complete undergraduate minors in other fields. Minors are encouraged and at LU they are 24 credits, the same amount that our 8 electives total. This means that those students wanting to do a minor in a field such as Environmental Science need to decide this from the first year of the BAS. To date, the only formal arrangements we have made towards minor degrees have been with the School of Environmental Science and usually has involved some collaboration to ensure that student timetables accommodate the student's interest in obtaining the degree minor.



Initial Vision for the MSoA Curriculum,
Founding Director Terrance Galvin, 2014

3.10.2 Overview of The 4-Year Bachelor of Architectural Studies (BAS) plus 2-Year Master of Architecture (MArch) Program

> *The APR must include:*
> *• an outline of the curriculum of the Program describing how each performance criterion included in Section 3.11 is met and how the Program achieves its pedagogical goals;*

The McEwen School of Architecture (MSoA) has been conceived of as a design School for Northern Ontario. As such, our curriculum is founded upon design-build teaching, experiential learning, and Co-operative education that embraces the tri-cultural philosophy of the University. The curriculum has been derived from a rich network of institutions, colleagues, and allies that embrace the "idea of north." Many lessons, case studies, and best practices have informed the design of the 4 + 2 professional program. The School delivers these lessons through a unique curriculum that addresses climate change and a return to seven generational thinking, while developing expertise in designing with wood and an array of other materials.

The MSoA is an academic unit within the Faculty of Science, Engineering and Architecture (SEA). The School of Architecture is founded upon the idea of a holistic education for professional architects. It offers a 4 + 2 year professional program. The four-year Bachelor of Architecture (BAS) program is a pre-professional degree that offers general design education, while the two-year Master of Architecture (MArch) program continues the formation of the professional architect at the graduate level, culminating in a design thesis. The two programs end in the Master of Architecture (MArch) degree, the terminal degree for architects across Canada. As of the writing of this report there have been two MArch classes that have graduated from the professional program.

The 120 credit BAS Program has 33 courses divided into 4 streams: Design (D), Culture (C), Technology (T), and Professional Practice (PP), including 8 elective courses for general education. The 48 credit MArch Program has 11 courses divided into the same 4 streams, with greater depth and focus, leading to the Master of Architecture degree.

3.10.2.1 Bachelor of Architectural Studies (BAS) Program

The BAS curriculum is comprised of 33 courses. The curriculum aims to achieve a fine balance between general studies through electives, and design-based community projects, focusing on architecture. Students can take all Design Studios, outside Electives and the two Co-op placements in French. Design Studios follow the same content in both French and English. LU offers a "Certificate of Bilingualism" to all students who earn a minimum of 15 credits in French (and vice versa for Francophone students).

The BAS Program has four major themes that guide the Design Studios:

1st Year:	**Place / Lieu**
2nd Year:	**Landscape / Paysage**
3rd Year:	**Northern Building / Bâtiment du Nord**
4th Year:	**Integrated Design / Design Complet**

The first two years of the Program (PLACE & LANDSCAPE) are foundational; the third and fourth years of the Program (NORTHERN BUILDING & INTEGRATED DESIGN) focus on community building and increasing technological complexity. The fifth and sixth year graduate program Design Studios (CRAFT/COMMUNITY/INDIGENOUS DESIGN & THESIS) are a platform for increasingly independent design research. The result of our collective pedagogy should lead to a community-based, culturally diverse, collaborative designer capable of critically designing the built environment in the 21st century.

We have embraced the opportunity to think about hybrid models of education as well as hybrid production. The relationship in Architecture between the 'traditional and the modern' is central to the Program: Manual craft + digital craft; traditional artifacts made with a combination of contemporary materials; renewable biomass CLT wood adjacent to innovative triple- glazed curtain walls; each of these examples in our building, as well as the layout of our Fabrication Lab, assist us in educating young architects to explore 'hybrid' culture, hybrid technology, and innovative design. The School's focus on designing with wood as a major renewable resource is intentional, as is learning from Indigenous knowledge regarding nature, sustainability, and creating new forms of architecture that are contemporary, yet built upon tradition. From the inception of the School, there has been an underlying current of decolonizing architectural education by intentionally working in a different way. The sequential 6 credit Design Studio themes and their related semester by semester 3 credit courses further reinforce this model.

Being a new program, all courses in the Professional Program below had to be passed internally at the Council for English Language Programs (CELP) and the Conseil du Programmes Français (CPF) committees.

Within the curriculum, the following courses marked EL/FL are offered in French: Design Studios: ARCH 1505, 1515, 2505, 2515, 3505, 3515, 4505, 4515; Co-op courses: ARCH 0100, 0300; and all 8 Electives external to the mandatory courses (including ARCH 3906 – Independent Study).

BAS | Program Overview (120 credits)

Note: All students take 33 courses. 9a is an optional repeat of 9. There is also ARCH 3906 - Independent Study, which can be substituted for any LU Elective (see no. 21 below).

Year 1		**Fall**		
(30 credits)	1.	ARCH-1505 EL/FL	Studio 1: Place / Atelier 1: Lieu	6 cr.
	2.	ARCH-1006 EL	Design Thinking	3 cr.
	3.	-	LU Elective	3 cr.
	4.	-	LU Elective	3 cr.
		Winter		
	5.	ARCH-1515 EL/FL	Studio 2: Place II / Atelier 2: Lieu II	6 cr.
	6.	ARCH-1007 EL	Sacred Place	3 cr.
	7.	-	LU Elective	3 cr.
	8.	-	LU Elective	3 cr.
Year 2		**Summer**		
	9.	ARCH-0100 EL/FL	Co-Operative 1	1 cr.
(31 credits)		**Fall**		
	10.	ARCH-2505 EL/FL	Studio 3: Landscape / Atelier 3: Paysage	6 cr.
	11.	ARCH-2306 EL	Design for Climate Change	3 cr.
	12.	ARCH-2316 EL	Structures 1: Wood	3 cr.
	13.	ARCH-4526 EL	Architectural Communications (future ARCH 2526)	3 cr.
		Winter		
	14.	ARCH-2515 EL/FL	Studio 4: Landscape II / Atelier 4: Paysage II	6 cr.
	15.	ARCH-2326 EL	Architecture and Ecology	3 cr.
	16.	ARCH-2036 EL	Canadian Art & Architecture	3 cr.
	17.	-	LU Elective	3 cr.
Year 3		**Summer**		
	9a.	ARCH-0100 EL/FL	Co-Operative 1 (if not completed in 1st year)	1 cr.
(30 credits)		**Fall**		
	18.	ARCH-3505 EL/FL	Studio 5: Northern Bldg. / Atel. 5: Bâtiment du nord	6 cr.
	19.	ARCH-3306 EL	The Well-Tempered Environment	3 cr.
	20.	ARCH-3006 EL	Indigenous Precedents	3 cr.
	21.	-	LU Elective (including ARCH 3906 - Independent Study)	3 cr.
		Winter		
	22.	ARCH-3515 EL/FL	Studio 6: Northern Bldg. II / Atel. 6: Bâtiment du nord II	6 cr.
	23.	ARCH-3316 EL	Structures 2: Connections	3 cr.
	24.	ARCH-3017	Writings in Architecture	3 cr.
	25.	-	LU Elective	3 cr.
Year 4		**Summer**		
	26.	ARCH-0300 EL/FL	Co-operative 2	2 cr.
(29 credits)		**Fall**		
	27.	ARCH-4505 EL/FL	Studio 7: Integrated Des. / Atel. 7: Design complet	6 cr.
	28.	ARCH-4316 EL	Structures 3: Building Systems	3 cr.
	29.	ARCH-4016 EL	Cultural Sustainability	3 cr.
	30.	-	LU Elective	3 cr.
		Winter		
	31.	ARCH-4515 EL/FL	Studio 8: Integrated Des. II / Atel. 8: Design complet II	6 cr.
	32.	ARCH-4006 EL	Building Case Studies	3 cr.
	33.	ARCH-4306 EL	Digital Fabrication	3 cr.

3.10.2.2 Student Performance Criteria (SPC) as they are 'met' in the BAS Program

A1. Design Theories, Precedents, and Methods
Studios: ARCH 1515, 3515, 4505, 4515
Core Courses : ARCH 2036, 3006, 4306

A2. Design Skills
Studios: ARCH 1505, 1515, 2505, 2515, 3505, 3515, 4505, 4515
Core Courses : ARCH 0300, 3006, 4526, 4306

A3. Design Tools
Studios: ARCH 1505, 1515, 2505, 2515, 3505, 3515, 4505, 4515
Core Courses : ARCH 1006, 0300, 4526, 4306, 4316

A4. Program Analysis
Studios: ARCH 3505, 3515, 4505
Core Courses : ARCH 4006

A5. Site Context and Design
Studios: ARCH 1505, 1515, 2505, 2515, 3505, 3515, 4505
Core Courses : ARCH 2306, 3306

A6. Urban Design
Studios: ARCH 3505, 3515, 4505, 4515
Core Courses : ARCH 4006

A7. Detail Design
Studios: ARCH 1505, 1515, 3505, 4515
Core Courses : ARCH 2316, 4306, 4316

A8. Design Documentation
Studios: ARCH 3505, 4515
Core Courses : ARCH 4316

B1. Critical Thinking and Communication
Studios: ARCH 3505, 3515, 4505, 4515
Core Courses : ARCH 4526, 2326, 2036, 3306, 3006, 3316, 3017, 4006, 4016

B2. Architectural History
Core Courses : ARCH 1007, 2036, 3006, 3017, 4006, 4526

B3. Architectural Theory
Core Courses : ARCH 2036, 3006, 3017, 4006

B4. Cultural Diversity and Global Perspectives
Core Courses : ARCH 1007, 3006, 3017, 4016

B5. Ecological Systems
Studios: ARCH 2505, 2515
Core Courses : ARCH 2306, 2326, 3006, 3306

C1. Regulatory Systems
Studios: ARCH 2515, 3505, 3515, 4505, 4515
Core Courses : ARCH 4016

C2. Materials
Studios: ARCH 1505, 3505, 4515
Core Courses : ARCH 2306, 2316, 3316, 4316, 4306

C3. Structural Systems
Studios: ARCH 1515, 4505, 4515
Core Courses : ARCH 2316, 3316, 4316

C4. Envelope Systems
Studios: ARCH 4515
Core Courses : ARCH 2306, 3306, 4316

C5. Environmental Systems
Studios: ARCH 2505, 2515, 4505, 4515
Core Courses : ARCH 2306, 3306, 4316

D1. Comprehensive Design
Studios: ARCH 4505, 4515

E1. The Architectural Profession
Core Courses : ARCH 0100, 0300 (+ see MArch Program)

E2. Ethical and Legal Responsibilities
Core Courses : ARCH 3006, 4016 (+ see MArch Program)

E3. Modes of Practice
Core Courses : ARCH 1006, 0300 (+ see MArch Program)

E4. Professional Contracts
See MArch Program

E5. Project Management
Core Courses : ARCH 1505, 3505, 4505 (+ see MArch Program)

3.10 Professional Degrees, and Curriculum

Achieving Pedagogical Goals

The BAS Program achieves it pedagogical goals through several mechanisms:

1) Our curriculum follows 4 streams where courses are grouped under: Design (D), Culture (C), Technology (T) and Professional Practice (PP); 2) Within each stream, each course syllabus outlines 'Learning Outcomes' that measure the pedagogical goals of each course. Assignments are designed around outcomes; 3) Next, each course syllabus is designed to cover specific SPC's from the CACB matrix. This allows a vertical relationship to take place within a specific stream: i.e. Structures 1, 2, 3 within the Technology stream. Thus, lessons that are delivered initially for exposure (i.e. understanding) to a topic such as structures or sustainability are then repeated in a later year where students apply the lessons to more complex design problems (i.e. ability); 4) Often a course has more learning objectives and learning outcomes than those covered solely through the SPCs, since those objectives are necessary to meet the overall pedagogy of our Program.

The pedagogical goals of the Program have been described in section 1.1.2 (Strengths of the Program). These goals are achieved through various courses, subject matter, and pedagogical methods that introduce and engage hands-on learning; that expose students to the workplace through 4 co-op experiences; that educate all students in Indigenous world views throughout the Program; that teach them about expertise in wood from the forest to the building component; that are delivered in both French and English in order to reflect the bilingualism of Northern Ontario; that respond to community needs through design studios partnering with community members to tackle real issues of local, northern, and remote communities. Often Design Studios address a program or a new building that the City is considering that was written into the Sudbury Master Plan, meaning that Design Studios draw upon 'real' situations. In fact, our pedagogical goals are achieved through many of these same mechanisms. They remain goals as well as means to deliver our teachings.

3.10.2.3 BAS Program Admissions

> *The APR must include:*
> *• a summary description of processes and requirements related to degree Program admissions that make up the Program, including those governing student applications for advanced placement; and student admission assessments concerning advanced placement within the Program.*

The four year Bachelor of Architectural Studies (BAS) Program has the following admission requirements:

High School Prerequisites: 1 English, 2 maths, 3 other courses (must all be 4U/M courses). Minimum average of 75% required. Selection is based mainly on supplementary application (i.e. statement of interest and portfolio); sometimes the MSoA has advocated for students with an average below 75% to be admitted to the BAS Program on account of particularly impressive supplementary documentation.

- The application package needs to contain the following supplementary documentation:
- Two (2) references (names and contact information for each are required)
- A 1-2 page statement of interest expressing why you are interested in architecture and also in our BAS Program.
- A Portfolio showing your creative and design skills. Portfolios can be submitted in physical format directly at the McEwen School of Architecture or electronically via the platform Issuu (https://issuu.com – send the link of your online portfolio to architecture@laurentian.ca)

An application to the Ontario Universities' Application Centre (OUAC) is also required; please see our website https://laurentian.ca/program/architecture/ details for additional details.

Student Recruitment Strategy for BAS Program

The University has a dedicated group that leads recruitment and Liaison all year. The big recruiting event in Ontario each September held in Toronto is called the Ontario Universities Fair (OUF), which takes place over three days. A great amount of resources is dedicated to this event, including the annual *LU Viewbook* (see Appendix M), where all programs are published. In addition, the School visits as many local high schools as possible; we meet with guidance counselors in both English and French school boards. There is also a French recruitment strategy from the LU Études et affaires francophones that includes several smaller French workshops where we send faculty and staff for presentations. Our international recruitment has been limited initially in order to establish the particular northern nature of the Program. However, the MSoA has been in conversation with the international recruitment team at LU for a number of years on how to target northern international regions where our Program emphases are consistent.

3.10.2.4 Master of Architecture (MArch) Program

The MSoA's curriculum is founded upon the integration of hands-on and experiential learning through design-build and Co-operative education. The Graduate Program further exposes students to design and construction projects with communities in the north and elsewhere. Community-based learning through a sequence of Design Studios continues to act as a spine throughout the Program. Other core courses relate to and support the subjects of the Design Studios. The pedagogical goal of the MArch Program is to integrate theory/practice and thinking/making through all design projects. Development is ongoing.

In Ontario, through the Institutional Quality Assurance Process (IQAP) process, the MArch Program had to be presented to a number of internal committees at LU all the way up to the Senate, including an IQAP external review and report. The approved Graduate Program in 2017 has therefore been sufficiently vetted and is staffed by experienced faculty who have particular expertise.

Whereas the mode of delivery and the structure of the Undergraduate Program is focused on instruction and teaching basic lessons that an architect requires (i.e. skill set), the Graduate Program has a different inflection. The MArch is much more driven by the student's individual design research (agency), supported by graduate courses and professors who offer more advanced insight, including their own specialized research. It is thus centred on mentoring each student's capacity as a professional leader and advocate, a common model for graduate programs in Architecture.

For the MArch Program, the mode of delivery in the Design Studio is one of continued collaboration in a studio setting. This is the first step towards addressing the manner in which contemporary professional practice works. The second layer is to have students take part in a minimum of 28 weeks of practical experience through the graduate Co-op Program, which helps them integrate knowledge and exposes them to the societal needs of real clients through the design of buildings. This mode of delivery is through a practicum that is also a core course. The third layer to the graduate program is the final Thesis year, where students return to the MSoA following their co-op work experience and begin to synthesize their overall design education towards the proposal for an individual design thesis spanning the 2 terms of the final year.

M.Arch. | Program Overview (48 credits)

Year 1		**Fall**		
	1.	One of the following studio options:		6 cr.
		- ARCH-5505 EL/FL	St. 9: Architecture and Craft / Atel. 9: Arch et artisanat	
(18 credits)		- ARCH-5515 EL/FL	St. 9: Community Bldg / At. 9: Édifice Communautaire	
		- ARCH-5525 EL/FL	St. 9: Indigenous Dsgn / At. 9: Conception Autochtone	
	2.	ARCH-5306	Fabrication 1	3 cr.
	3.	ARCH-5906	Architectural Practice	3 cr.
		Winter		
	4.	ARCH-5915	Co-Operative 3	6 cr.
Year 2		**Summer**		
	5.	ARCH-5925	Co-Operative 4	6 cr.
(30 credits)		**Fall**		
	6.	ARCH-5555 EL/FL	Thesis Studio 1 / Thèse 1	6 cr.
	7.	ARCH-5316	Faculty Research Seminar	3 cr.
	8.	ARCH-5006	Architectural Theory Seminar	3 cr.
		Winter		
	9.	ARCH-5565 EL/FL*	Thesis Studio 2 / Thèse 2	6 cr.
	10.	ARCH-5326	Fabrication 2	3 cr.
	11.	ARCH-5086	Material Culture	3 cr.
	*	ARCH-5565 EL/FL	Students continue to register in ARCH 5565, as required.	

3.10 Professional Degrees, and Curriculum

YEAR 1: The Fall term of the five-term Graduate Program begins with 3 optional **graduate studios** (ARCH 5505, ARCH 5515, or ARCH 5525) where students choose among: 1) Community based design, continuing the working methods explored in the underGraduate Program; 2) Craft, which explores construction detailing, manual craft, or technologies including digital fabrication; or 3) Indigenous Design, which explores indigenous issues in community design projects of a holistic nature. Community building and the Craft of architecture are explored through the lenses of community led processes, fabrication, and material culture; Indigenous design remains an open-ended exploration of issues of relevance for Indigenous communities and/or involves working with Indigenous studio instructors.

Supporting the fall graduate Design Studios are two other courses: **Fabrication 1** (ARCH 5306), which builds upon the lessons learned in the undergraduate course **Digital Fabrication** (ARCH 4306). Fabrication 1 is the first of two Fabrication courses in the Graduate Program. Together, these Technology courses act in sequence to explore various methods and techniques of making and fabricating. The Fabrication courses support questions that arise in the Design Studio, and/or complement the expertise of professors leading these courses. The third fall course is **Architectural Practice** (ARCH 5906), situated in the first graduate term so that students can be introduced right away to building codes, the various forms of architectural contracts possible, and the types of architecture offices that exist, before they embark on the next two Co-operative education terms, during the following winter and summer. Both the Fabrication course and the Architectural Practice course are placed in the first term in order to support independent graduate thinking as well as look ahead to practical office experience, including the Internship process upon graduation. The Fall graduate term precedes the 28 weeks of Co-op placement where design work is conducted in an architectural office from January to August.

The second and third terms of the Graduate Program (Winter and Summer) are comprised of **Co-operative 3** and **Co-operative 4** (ARCH 5915 & 5925). During these 8 months, students are immersed in various design disciplines and practices, while receiving academic credit for their placements. As in the undergraduate Co-op terms, both the employer and the student write an independent evaluation "report" outlining their experience. The invaluable lessons learned in practice then become folded into each student's professional education through the creation of posters and pecha kucha presentations. Most importantly, structuring this experience through the MSoA creates a culture of professional practice within the School of Architecture that benefits both undergraduate and graduate students.

By the end of the first year of graduate study, each student prepares to propose a graduate Thesis in architecture, explored through design research and making. It is the intention of the Graduate Program that much of the Thesis work in the School will relate directly to the various emphases students have received as part of their education to date. As intended, we have had relative success in seeing our students pursue theses that have emphasized working closely with communities and through real design problems and socio-economic issues. We hope that this will continue to 'ground' both the Undergraduate and Graduate Programs in Architecture.

YEAR 2: Although the second year of the Graduate Program technically begins with **Co-operative 4** (ARCH 5925) during the Summer term, the second Fall term of the Graduate Program begins with **Thesis 1** (ARCH 5555), where each student proposes her/his own independent (but supervised) final year of study. As in many programs, the Thesis Studio spans both Fall and Winter terms. The fall Thesis Studio 1 course is spent in developing research methods, exploring thesis direction and writing a proposal that defines a thesis topic as well as choosing an Advisor. During this semester, students also take an **Architectural Theory Seminar** (ARCH 5006) to support the critical positioning of their research, and specialized topics that are elaborated through one of three different **Faculty Research Seminars** (ARCH 5316), offered by faculty to focus upon their various expertise. The Faculty Research Seminars and Architectural Theory Seminar both act as vehicles to further provide a theoretical context for each student's design proposal during the fall semester.

In the final semester of second year, **Thesis 2** (ARCH 5565) focuses on the design of an architectural project or proposition. The final Thesis may be drawn from working with a real community partner and is often based upon ethical, social, and/or environmental issues that students have encountered in their previous studies. **Fabrication 2** (ARCH 5326) is an advanced course that runs parallel to support the thesis investigation as well as allows a student to isolate a particular issue in detailing or making through design. This issue can then be pursued and developed with one of the professors acting as a guide. Just as "Cultural Sustainability" forms the final course of the BAS Program, the final MArch course is called **Material Culture** (ARCH 5086). This course places an emphasis on the Culture Stream of our Program, allowing the study of material culture, ethnography, and socio-cultural meaning to become a platform for indigenous or local design, as students prepare to present and defend their design theses. These final mandatory courses are strategically placed to allow each student to explore design within the context of hands-on learning about materials and modes of fabrication.

The final Thesis year thus follows a layered and integrated approach that establishes a path to becoming a professional architect. Each student works with a faculty member as a thesis Advisor along with a Second Reader: she/he may develop a project with a community, coordinate with various consultants and academic advisors during the design process, and then defend the design Thesis through a final design review/exam of work, coupled with a written thesis report. Approximately three weeks following the final Design Review/Examination, the final MArch Thesis is submitted to the Faculty of Graduate Studies (FGS) and subsequently posted on-line at LU as well as housed in hard copy at the MSoA Architecture Library.

Each Spring, final Thesis projects are on annual exhibition and review as the culmination of the Master of Architecture degree program, open to the wider community. Each student also produces a summary Thesis poster for exhibition during the week of Convocation. For students who do not defend their Thesis during spring reviews, the School holds thesis defenses during the summer term as well, in order to meet Fall Convocation at Laurentian.

Informing the curriculum since its inception, the School has been conscious that the Master of Architecture (MArch) professional degree is the educational requirement in order to continue on and complete two years of internship (experience) before being eligible to become a registered architect through writing licensing exams. Thus, 1) education, 2) experience, and 3) examination are the three related components of becoming a professional Architect in Canada, and our curriculum is intended to frame this model through direct architectural education.

3.10.2.5 Student Performance Criteria (SPC) as they are 'met' in the MArch Program

A1. Design Theories, Precedents, and Methods
Studios: ARCH 5505, 5515, 5525, 5555, 5565
Core Courses : ARCH 5316, 5086

A2. Design Skills
Studios: ARCH 5505, 5515, 5525, 5555, 5565
Core Courses : ARCH 5306, 5086

A3. Design Tools
Studios: ARCH 5505, 5515, 5525, 5555, 5565
Core Courses : ARCH 5306, 5086

A4. Program Analysis
Studios: ARCH 5515, 5555

A5. Site Context and Design
Studios: ARCH 5555, 5565

A6. Urban Design
Studios: ARCH 5555

A7. Detail Design
Studios: ARCH 5505
Core Courses : ARCH 5306, 5326

A8. Design Documentation
Studios: ARCH 5505
Core Courses : ARCH 5306

B1. Critical Thinking and Communication
Studios: ARCH 5505, 5515, 5525, 5555, 5565
Core Courses : ARCH 5006, 5086, 5316, 5906

B2. Architectural History
Studios: ARCH 5555, 5565

B3. Architectural Theory
Studios: ARCH 5555, 5565
Core Courses : ARCH 5006, 5086

B4. Cultural Diversity and Global Perspectives
Studios: ARCH 5515, 5525, 5555, 5565
Core Courses : ARCH 5006, 5086, 5906

B5. Ecological Systems
Studios: ARCH 5555
Core Courses : ARCH 5915, 5925

C1. Regulatory Systems
Core Courses : ARCH 5906, 5915, 5925

C2. Materials
Studios: ARCH 5505
Core Courses : ARCH 5306, 5326, 5086, 5915, 5925

C3. Structural Systems
Core Courses : ARCH 5306, 5915, 5925

C4. Envelope Systems
Core Courses : ARCH 5915, 5925

C5. Environmental Systems
Core Courses : ARCH 5915, 5925

D1. Comprehensive Design
Studios: ARCH 5565

E1. The Architectural Profession
Core Courses : ARCH 5906, 5915, 5925

E2. Ethical and Legal Responsibilities
Core Courses : ARCH 5906, 5915, 5925

E3. Modes of Practice
Core Courses : ARCH 5906, 5915, 5925

E4. Professional Contracts
Core Courses : ARCH 5906, 5915, 5925

E5. Project Management
Core Courses : ARCH 5326, 5906, 5915, 5925

Achieving Pedagogical Goals

The MArch Program achieves its pedagogical goals through the same overall structure of the 4 streams. At the graduate level, the emphasis shifts toward particular expertise of instructors, coupled with themes in the Program. Main differences in the graduate program are that students select their M1 Design Studio, therefore they begin to align their interests with the pedagogical direction of a particular design studio in craft, through drawing, through design-build, through community engagement, through Indigenous design, etc. The pedagogy of the first graduate year includes more travel with Design Studios as a way of broadening lessons learned at the local level to address global design issues. However, each course achieves its pedagogical goals through its Learning Outcomes as well as the particular direction of each Design Studio.

Second, the graduate support courses each term continue to follow the 4 streams of the Program, but again the courses have more specific content (i.e. Fabrication 1 – ARCH 5306 or Fabrication 2 – ARCH 5326) compared with the more general lessons delivered in the BAS Program. Courses such as Professional Practice (ARCH 5906) lead students towards choosing their path for the eight-month co-op experience after M1; here the pedagogy is to learn about the Canadian Handbook of Practice along with many issues that students will experience while on work-term. The pedagogical goal of the graduate co-op courses is to bridge academic learning with practical office experience, and this is intentional prior to returning to conduct the last eight-months of Thesis 1 (ARCH 5555) and Thesis 2 (ARCH 5565). In the second year of the graduate program, the pedagogical goal is to allow each student to successfully formulate an individual design thesis. We achieve this goal through graduate support courses and a Thesis Committee that guides each student towards completion of a design thesis that is reviewed and examined by an External Examiner to the Program. The MArch thesis brings together design research, co-op experience, and individual intentions through a written and design document.

The MSoA Program achieves the above pedagogical goals as well as those outlined in the six PPCs in **Section 3.11.1** through the delivery of courses that have very intentional meaning. This forms the nucleus of a Design Education both broad-based and particular.

3.10.2.6 MArch Program Admissions

> *The APR must include:*
> *• a summary description of processes and requirements related to degree Program admissions that make up the Program, including those governing student applications for advanced placement; and student admission assessments concerning advanced placement within the Program.*

For the Master of Architecture (MArch) degree, following a pre-professional degree in design, the MSoA Admission requirements are:

- Minimum overall average of at least 70% in the BAS Program
- Design Portfolio (for review of Design abilities) submitted via issuu.com
- Letter outlining intended graduate studies focus at Laurentian
- Three letters of reference
- Approval of previous pre-professional degree from another institution

Two paths lead to the MArch Program at the moment.

Path 1: For those continuing on after the BAS Program, the Graduate Admissions Committee reviews Design Portfolios and applications during the final term of the BAS degree. Applications are due February 1st. Submission of each student's Design Portfolio includes a written statement expressing what area(s) they wish to focus upon for their graduate work, who they might wish to study with, etc., along with three on-line references. The package required by those continuing on after the BAS Program at Laurentian to be reviewed by the McEwen School of Architecture Admissions Committee includes:

- Three (3) references (to begin the process at my.laurentian.ca click on "Reference Submission" on the left-hand navigation menu – you will need to send the electronic form provided on the portal to your referees)
- A current curriculum-vitae/resume (to be uploaded via MyLaurentian)
- A 1-2 page letter expressing what area(s) of design you wish to focus upon for graduate work including any particular professors you may want to work with (to be uploaded via MyLaurentian). Please note that MArch Thesis advisors are assigned after entry into the Graduate Program.
- A Design Portfolio showing your creative and design skills, technical knowledge and relevant professional experience. Portfolios can be submitted in physical format directly at the School of Architecture or electronically via the platform Issuu (https://issuu.com)

An overall average of at least 70% (min. GPA 5.5) is required to be admitted into the MArch Program.

Path 2: Students also apply to the MArch Program from outside of the BAS Program. The requirements for those applying to the MArch Program from outside of the BAS Program are outlined below (applications are due February 1st):

Submit the following accompanying documentation at my.laurentian.ca to the Office of Admissions:

- Official transcripts, indicating their previous pre-professional architecture degree*
- Three (3) references (to begin the process at my.laurentian.ca click on "Reference Submission" on the left-hand navigation menu – you will need to send the electronic form provided on the portal to your referees)
- A current curriculum-vitae/resume (to be uploaded via MyLaurentian)
- A 1-2 page letter expressing what area(s) of design you wish to focus upon at the McEwen School of Architecture for graduate work (to be uploaded via MyLaurentian). Please note that MArch Thesis advisors are assigned after entry into the Program.
- A Design Portfolio showing your creative and design skills, technical knowledge and relevant professional experience. For each project in your portfolio please note if it was completed for school, extra-curricular or during employment. For each project in your portfolio also indicate for which climate and what location it was designed for. Portfolios can be submitted in physical format directly at the School of Architecture or electronically via the platform Issuu (https://issuu.com – send the link of your online portfolio to architecture@laurentian.ca)

*Please note that official transcripts or WES course-by-course (for institutions attended outside of North America) must come directly to the Office of Admissions from the previous post secondary institution by requesting at the time of your application or by contacting the institution's Registrar's Office.

An application to the Ontario Universities' Application Centre (OUAC) is also required; please see our website *https://laurentian.ca/program/architecture-march/details* for additional details.

While the GPA of MArch applicants cannot be below 70% (unlike BAS applicants, where some flexibility is possible depending on their supplementary application), students more readily selected for admission to the MArch Program are those that demonstrate a wide variety of design skills in their professional portfolio, with particular emphasis on sustainability as well as a thorough understanding of how climate affects design.

The formulation of our Admission requirements is consistent with the CACB *Conditions and Terms of Accreditation* quoted at the beginning of this section (3.10) of the APR.

The above requirements for the Graduate Program are also entirely consistent with the learning outcomes of the MArch Program (as per the Ontario Ministry of Education's 'Learning Outcomes'), which are based upon: 1) integrating knowledge; 2) demonstrating 'ability' through design, and 3) understanding architecture as a social art that expresses the cultural values of a particular community.

Architecture Qualifying Year

In addition to the above text, in 2019 the MSoA School Council voted to approve formalizing a Qualifying Year which would allow students from non-accredited design programs a path into our graduate program. This was approved by the Council of English Language Programs (CELP) in January of 2020. The description of the approved MSoA Qualifying Year admissions process is as follows:

Applicants who have a 4-year degree in architecture (or a closely related field such as Environmental Design) from a non-pre-professional program (i.e. curriculum is not reviewed by the Canadian Architectural Certification Board (CACB) or foreign equivalent), can apply for acceptance into an Architecture Qualifying Year, including comprehensive Design Studio and other suggested courses. The Architecture Qualifying Year is designed to allow applicants to obtain the professional MArch degree over 3 years, while ensuring that accreditation requirements are met. Acceptance into the graduate program is contingent on the student maintaining good academic standing.

Similarly, in some cases, international students with limited or no experience in cold climate construction and building envelope design, and/or who have not demonstrated sufficient comprehensive design experience, and/or who are not deemed to have the requisite digital proficiencies to succeed in the MArch Program, will also be recommended to the Architecture Qualifying Year.

Note: In some cases, depending on the quality of the portfolio and academic transcript, students may instead receive advanced standing into the third year of the BAS Program. If so, and upon successful completion of 60 undergraduate credits at the University, the student will receive a Bachelor of

Architectural Studies degree and would be eligible to apply to the MArch Program.

Students who maintain Good Academic Standing during the Qualifying Year will need to provide a "Letter of Intent to Continue into the MArch Program" to the Graduate Coordinator prior to the February 1st application deadline, but will not need to reapply.

In order to apply for acceptance into the Architecture Qualifying Year, applicants may follow the instructions above - See "B) For those applying to the MArch Program from outside of the BAS Program (including those applying for the Architecture Qualifying Year)". In the letter of intent, applicants should clearly state that they are applying for the Architecture Qualifying Year.

3.10.3 Summary of the Co-Operative Education Program

The Co-operative (Co-op) Program is an integral part of each student's undergraduate and graduate experience. The total amount of co-op experience in the 4 + 2 year professional program is 56 weeks. The undergraduate BAS program has two 14-week co-operative semesters, one at the end of first year and another at the end of third year. Thus the BAS program offers 28 weeks of co-operative education towards the 120 credit BAS undergraduate degree. The intention is for students to be able to do their co-op placements in either English of French, as they so choose. This requires depth and range of practices offered through the School's database.

The McEwen School of Architecture has one dedicated full-time staff person as the Co-operative Education Placement Coordinator. The Co-op Coordinator's role is to guide all aspects of the cooperative program, from preparing the students for the job search to posting job interviews to assisting in the match between employers and students. The Co-op Coordinator's job description is very demanding, outlining the importance of integrating practical experience with academic preparation. The Co-op Coordinator works fairly closely with each faculty member who is the Instructor of Record for each co-op course in the co-operative education sequence.

The paid co-operative placements are each part of a course: **Co-operative 1A/B** (ARCH 0100) is the first year course while **Co-operative 2** (ARCH 0300) is the third year course. The first undergraduate co-op semester (ARCH 0100) is in industries related to construction, fabrication, landscape architecture, and so forth. Students in their first year of the BAS program have the option of doing the first co-op placement in the summer following either first or second year.

It is important to note that while the Co-op Coordinator and the MSoA work intensely to line students up with their placements, the final responsibility of securing employment rests with the student. The wording in all co-op course syllabi states: "The Co-op Coordinator guides internship preparation, interviews and placements, but employment is ultimately the responsibility of each student." Please also review the Co-op Handbook and related co-op documents (e.g. Co-op LETTER OF AGREEMENT) in Appendix O, which go into greater detail regarding student responsibilities before, during and following their co-op placements). The Co-op Handbook and Co-op LETTER OF AGREEMENT are reviewed and signed respectively by ALL co-op students (undergraduate and graduate).

Students' Job Readiness Program

From September to April on a yearly basis, anywhere from 10-15 co-op Job Preparedness sessions are offered by the Co-op Coordinator in the McEwen School of Architecture and tend to be well attended by BAS co-op students (participation in these sessions is heavily factored into the students' participation grade for the BAS co-op courses). These sessions introduce cover letter writing, résumé writing, portfolio preparation, general job search skills and basic workplace principles. Additionally, one-on-one meetings with the Co-op Coordinator are offered to students for review of their documents (cover letter, résumé, and portfolio) as well as to review interview skills and other job search-related matters. These individual meetings are effective, not only for the review of documents, but also for discussions regarding interview preparation and to answer questions and concerns pertaining to anything co-op related. Some faculty members also volunteer their time in order to provide comprehensive portfolio reviews - from an architect's perspective - for students who request this.

Co-op Program Database

Currently, the MSoA Co-op Employer database contains more than 350 employers for ARCH 0100 co-op and more than 700 employers for the ARCH 0300, ARCH 5915 and ARCH 5925 co-ops. Of the 700 upper year employers, over 400 are architecture firms. These numbers are continually growing as contacts with new employers are made on a regular basis.

BAS Student Placement Numbers

- 2017: Number of students in the summer Co-op are: **ARCH 0100** - 90% placement rate (87 out of 97 students were placed)
- 2018: Number of students in the summer Co-op are: **ARCH 0100**: 77% placement rate (54 out of 70 students were placed)
- 2019: Number of students in the summer Co-op are:

ARCH 0100: 83% placement rate (54 out of 65 students were placed)

- 2020: Number of students in the summer Co-op are: **ARCH 0100**: 29% placement rate (25 out of 86 students were placed)*

(See Appendix N for additional notes in the corresponding year's *Co-op Report*)

It is important to note (* above) that the ARCH 0100 2020 placement rate, like all MSoA co-op placement rate in 2020, was heavily affected by COVID-19; of the 86 students originally registered for ARCH 0100, 12% of those students had placements lined up which were initially postponed and then ultimately cancelled. A number of other students had multiple contacts with various prospective employers which did not result in a placement, also due to COVID-19. Due to these particular, unprecedented circumstances, a special one-time design-build "equivalency" assignment for ARCH 0100 was developed in order to allow those students who were not placed the opportunity to complete the course by doing this project. Since doing ARCH 0100 after the first year in the BAS program is optional (see 3.10.2.1 Bachelor of Architectural Studies (BAS) Program course schema), 24 first year students of the 61 who were not placed chose to defer their co-op placement to the summer 2021 term and consequently dropped the course. Seven (7) of the 61 applied for and were successful in obtaining a course exemption. Another 25 of the remaining 61 students opted to do the equivalency assignment. At least five (5) students have withdrawn entirely from the architecture program. Not only did COVID-19 therefore have a profound impact on placement rates, but on attrition rates as well, and will no doubt continue to affect attrition rates throughout the upcoming academic year.

The second undergraduate co-op semester (ARCH 0300) is in the field of design (architecture offices, engineering firms, graphic design, sustainability or planning offices, municipal or other government offices,and so forth). The main idea is to have as wide an exposure to design in different settings as possible.

Due to the fact that the ARCH 0300 co-op course must be completed following a student's completion of the third year of the BAS program but before entering fourth year, an equivalency assignment is sometimes required to help those students who were unable to secure a placement, and was particularly required during the summer 2020 placement cycle. Students must apply to complete the equivalency assignment; this application must include a detailed description of the student's job search and why it was ultimately unsuccessful.

- 2017: Number of students in the summer Co-op are: **ARCH 0300** - 75% placement rate and 25% equivalency assignment rate (47 out of 63 students were placed and 16 completed the Equivalency Assignment)
- 2018: Number of students in the summer Co-op are: **ARCH 0300** - 73% placement rate and 27% equivalency assignment rate (37 out of 51 students were placed and 14 completed the Equivalency Assignment)
- 2019: Number of students in the summer Co-op are: **ARCH 0300** - 90% placement rate and 8% equivalency assignment rate (53 out of 59 students were placed and 5 students completed the Equivalency Assignment)
- 2019: Number of students in the summer Co-op are: **ARCH 0300** - 36% placement rate and 43% equivalency assignment rate (21 out of 58 students were placed and 25 completed the Equivalency Assignment)**

(See Appendix N for additional notes in the corresponding year's *Co-op Report*)

Once again we observe (** above) the effect of COVID-19 on the placement rate for the ARCH 0300 placements during summer 2020. At least 8% of students had placements lined up that were then cancelled, and just like with ARCH 0100, a number of other students had multiple contacts with various prospective employers which did not result in a placement, also due to COVID-19. At least nine (9) students opted not to complete ARCH 0300 during the summer 2020 term and consequently dropped the course; some had withdrawn from third year courses during the winter 2020 term following the outbreak of COVID-19, and therefore need to repeat same during the winter 2021 term, which will allow them to complete their co-op placement during the summer 2021 term. At least two of the nine students completed their third year but opted to take a year off and will complete their co-op placement during the summer 2021 term instead. Three students have completed ARCH 0300 but still need to submit additional work.

As part of a special equivalency assignment offered to the ARCH 0300 students unable to obtain a placement during the summer 2020 term, these students were given the opportunity to work in teams on select design competitions. Our co-operative program largely reflects a growth curve for the new School, including the time required to establish a database of employers with sufficient depth.

3.10 Professional Degrees, and Curriculum

Promotion of Co-op

The MSoA co-op office has produced a series of brochures for the promotion of the McEwen School of Architecture Co-op Program and the recruitment of co-op employers, to not only gain broader visibility but also to maintain co-op employers' loyalty to the co-op program. Marketing and promotional items produced to date include pamphlets, postcards, thank-you cards, display roll-up banners (one for the promotion of the co-op program and another for co-op employer recognition and appreciation). Other documents created by the co-op office include the Co-op Student Handbook (which includes the terms, policies and procedures of the co-op program), and the Employer Guidelines (which addresses employer needs/concerns regarding the terms of the co-op - see Appendix O).

Additionally, all co-op employers (local and otherwise) are invited to MSoA events, including but not limited to award ceremonies and graduation celebrations.

Location of co-op placements

The majority of first year BAS students choose to go back home for their co-op work term rather than stay in Greater Sudbury (with the exception of those who are from the Greater Sudbury area). The idea of the first co-op is to gain experience from a wide variety of industries related to architecture. Students who leave Greater Sudbury to do their co-op do an independent job search as they are responsible for finding their own co-op, as opposed to those students staying in Greater Sudbury who took part in the Job Board process, which has been used every year except 2020 (COVID-19 necessitated more students doing independent job searches due to employer uncertainty regarding being able to provide jobs). Training is provided to all students as to the best method for undertaking an independent job search. Typically, the co-op work terms taking place in other countries are done by international students who are returning home. Detailed information regarding co-op position locations can be found in the individual yearly *Co-op Reports*.

Past Goals

Two of the co-op program goals for 2017-2018 were as follows: first, to increase the number of students placed through ARCH 0300 to 90% (for 2017, 75% of students were placed and 72% in 2016); and second, to increase the number of employers in the MSoA database. In 2019, 90% of students were placed for ARCH 0300, thus achieving that goal. Unfortunately the 2020 placement rate has been much lower as a result of COVID-19. Happily, the number of employers in the Co-op Employer Database has been significantly increased.

Continuing strategies are still needed to recruit employers effectively and efficiently. Previously reported venues through which to achieve this remain:

1) Targeted Employer Development: Students in ARCH 0100 and ARCH 0300 must complete a questionnaire, in the form of an application for co-op, declaring their intentions regarding possible geographic location; that is, indicate where they are from, how far they are willing to travel for work, etc. The data from this form provides knowledge that can be used to plan effectively by targeting specific geographic areas. All co-op students indicate these preferences along with a signed form indicating they have read, understood and will abide by the Co-op Handbook (Appendix O).

2) Communications: As part of the Co-op Marketing strategy, a planned mail/email campaign will be established, allowing for a consistent, timely and effective message to recruit employers. The email campaign in particular has worked well with respect to reminding employers of upcoming co-op terms and whether they have positions available.

For additional information on past goals, please see the individual yearly co-op reports in Appendix O.

Current Goals

Current goals are focused on applying for accreditation with the Co-operative Education and Work-Integrated Learning (CEWIL - formerly CAFCE Canadian Association for Co-operative Education) Canada Association. This is applicable specifically to the MArch co-op program, but the status would undoubtedly have a positive effect on both undergraduate and graduate co-op programs as well as continuing employer communications and development.

Learning Outcomes related to the Co-operative Education component surround leadership, professional training, ethics, and advocacy of the profession. As noted above, once the Co-op Program is accredited by CEWIL, the MSoA can advertise the MArch Program as part of CEWIL Canada network. This would add co-operative education recognition to the general accreditation of the professional program by the CACB. In order for us to be a CEWIL accredited member, at least 25% of the graduate program has to be based on co-operative experience. CEWIL accreditation would also allow us to advertise the MArch program to other CEWIL accredited institutions. For more information about CEWIL's accreditation process, please visit the following website: *https://www.cewilcanada.ca/accreditation.html.*

As part of a quarterly report required by CEWIL, the MSoA sends a data report that breaks down the co-op placements in a given term (in the case of our Programs, only

December to April and May to August are reported, as our students do not do co-op placements during September to December) by number of graduate versus undergraduate students, course fees, male/female statistics, number of employers and locations of co-op placements (divided by province, followed by a category for US placements and another for international placements). These reports can also be found in Appendix N.

Our use of database platforms such as Riipen (since the summer 2020 term) has also helped increase our visibility with respect to employers; a number of potential co-op positions arose as a direct result of our presence on this platform, one of which resulted in a successful co-op placement for one of our ARCH 0300 students.

We are also in the process of implementing a software platform for tracking student success, which is an initiative being led by Laurentian University's Special Advisor on Leadership and Experiential Learning. This involves input from all departments currently offering co-op placements and/or other opportunities for experiential learning.

Finally, we are working on streamlining co-op contracts, employer evaluations and other general co-op template forms with other departments at Laurentian University who also offer co-op placements and/or other opportunities for experiential learning, in order that there is (eventually) a uniform, campus-wide process in place.

Summary of the Graduate Co-Operative Program

The Graduate Program has a combined 28-week (two sequential terms) co-operative component that begins in the second term of the graduate degree (ARCH 5915 & 5925). The placements are obtained from the list of architects and design firms in the School's database. It is the intention that all Graduate students find placements through the School directly, as well as through their own initiative. In the latter case, the placement is equally managed through the Co-op Coordinator's office. MArch students are placed in architecture and design offices locally, nationally, and internationally, in order to achieve a wide range of exposure to global design issues. The third and fourth co-op placements, both Graduate co-op placements (ARCH 5915 and ARCH 5925), are usually discussed together as they often involve a placement with a single employer that begins in the winter term and finishes at the end of the summer term (eight months). These placements must take place in an architecture firm and/or with registered architects; simply doing a placement involving design in a non-architecture firm or not working with an architect is insufficient. The first graduate co-op terms ARCH 5915 and ARCH 5925 took place starting in January 2018.

- 2018: Total Students in the Graduate Co-op were:
  ARCH 5915: 100% placement rate (34 out of 34 students were placed)
  ARCH 5925: 94% placement rate (32 out of 34 students were placed)
- 2019: Total Students in the Graduate Co-op were:
  ARCH 5915: 97% placement rate (37 out of 38 students were placed
  ARCH 5925: 97% placement rate (37 out of 38 students were placed)
- 2020: Total Students in the Graduate Co-op were:
  ARCH 5915: 95% placement rate (37 out of 39 students were placed)
  ARCH 5925: 100% placement rate (38 out of 38 students were initially placed), then five of these students lost their jobs due to COVID-19 and had to do an equivalency assignment to finish)

MSoA Nuit Blanche, 2017

3.11.1 Program Performance Criteria

> *The APR must include:*
> *• an overview of the curricular goals and content of the Program;*
> *• a thematic summary of how the six program performance criteria (PPC)...are acknowledged in the structure and deployment of the curriculum described below;*

Introduction to PPC

The introduction of the following six Program Performance Criteria (PPC) are an opportunity to address the specific pedagogical goals of each curriculum. They allow the MSoA to discuss its unique pedagogy and experimental approach to post-colonial thinking for a new School of Architecture in Canada.

We were conscious of this unique opportunity, beginning with employing Elders to work with us in the Design Studio; including Franco-Ontarian culture in the delivery of Design Studios and other courses; and making a conscious effort to address wood as a viable and sustainable building material. We also wove Co-operative education throughout the BAS and MArch Programs. These particular strategies, coupled with a commitment to hands-on learning whenever possible, has allowed our Program to push boundaries within the design discipline. The original curriculum had these tenets embedded with a focus on the north and on community, which led to our MSoA Strat Plan goals, striving to achieve leadership in Indigenous Design, Wood Design, and Co-operative Education. This framework raises many questions for students and faculty, and without necessarily answering the questions, it provides a certain 'uncharted direction' to our Program that is speculative and healthy for architectural education.

PPC 1 - Professional Development

> *The Program must demonstrate its approach to engaging with the profession and exposing students to a breadth of professional opportunities and career paths, including the transition to internship and licensure.*

From its inception, the Program has engaged the design profession(s) through its three Co-operative courses: In the Undergraduate Program during the summer after 1st year and during the summer after 3rd year and in the second and third semesters of the Graduate Program. With this totaling 4 terms (56 weeks) of the six-year Program, the Co-operative program is designed to bridge the theory and practice of design. The MSoA has a very engaged Co-operative Program Coordinator as a full-time staff member. Students are exposed to Professional Development in working for design related industries in the first Co-op course. The employers appreciate the Co-op education model for a number of reasons, while students learn first-hand how to approach landscaping, welding, or working on pricing materials in a hardware store. The trajectory of the Co-op Program becomes more focused on design firms and architecture offices as the students progress through the Program. They learn by writing reports on their experience, and often presenting their experience *pecha-kucha* style. As the Program has grown, our graduate students now work locally, nationally, and internationally, including having placements at the offices of Steven Holl (New York) and Sauerbruch Hutton (Berlin).

In addition to the Co-operative program, the M1 term delivers **Architectural Practice** (ARCH 5906) to cover the CHOP as well as forms of contracts and how architecture firms are structured. This course tries to assist students in making decisions regarding their upcoming MArch eight-month work-term, both in learning about the size and direction of architecture firms from small to large. We are finding that students who participate in Co-op Programs graduate with a professional portfolio and a resumé with at least three placements. This often assists them in finding full-time employment upon graduation, not infrequently being offered positions from a former employer.

We begin each year explaining to students that they can join the OAA as students, which gives them access to the Regulators in Ontario from early on. We have also had incredible support from the OAA as a new School, where they have allotted OAA scholarships to our top students each year. Last year, one of our Thesis students was awarded one of the inaugural OAA SHIFT awards for her thesis work modified to enter that competition. We have also invited the OAA President to speak at our MArch awards ceremony at the School in both 2019 and 2020, and they have done so on both occasions. We have had RAIC representation here through guest lecturers (Emmanuelle Van Rutten) and we hope to continue building professional relationships there as well.

As the general Design Education unfolds, like many Schools, the BAS degree prepares students by providing Design Thinking and critical thinking skills through design. As a result, we have had students enter into Planning and Industrial Design professions following their undergraduate degree. Concerning the transition from their Professional degree to internship, for the majority of our MArch students (the classes of 2019 and 2020), they graduate with the intention of beginning their internship on the path to licensure. The OAA and CALA have generously worked with the MSoA in order to allow our graduates access to their CACB number in order to begin the IAP process (See Appendix H). We know that this is not mandatory in Québec, for our French speaking students, however, the career path is open to them as well. Our graduates are already at firms including

3.11 Performance Criteria

Hatch, KPMB and DIALOG in a variety of capacities from engineering to planning and urban design.

We have been actively conscious to provide a roster of career paths that an architecture degree can open up and this has been published each year in the *LU Viewbook* used by students when deciding which University to attend. We have also been conscious to have our students be proactive with guest lecturers and visiting critics regarding their upcoming Co-operative placements. All of these activities promote professional development from first year onwards.

PPC 2 - Design Education

> *The Program must demonstrate how it situates and values education and training in design at the core of the curriculum, including the ways in which the design curriculum weaves together the social, technical, and professional streams of the curriculum .*

"The philosophy of the McEwen School of Architecture (MSoA) is founded upon pride of **place**. This philosophy embraces the resiliency of northern people and the unique beauty of the northern Ontario landscape." Like most Schools of Architecture in North America, and aligning with the 8 Design SPCs of the CACB, Design (and Design Studio) is at the core of our curriculum, with three other streams (Culture, Technology, and Professional Practice) wrapping around Design to support it as our major form of exploration. Design Education is particular in our Program as it seeks to train students in **Design Thinking** (ARCH 1006) through a series of special skills. These include hands-on and experiential learning through design-build assignments, Indigenous knowledge through canoe and wigwam building with Elders, and practical knowledge of the profession through a sequence of Co-operative education placements. Added to this complexity is the fact that the Design Studios are all offered in French for Francophone students.To begin hands-on learning, first year students partner with the City and work with local community groups for their design-build Ice Stations project on Lake Ramsey each winter. This introduces all students to community engagement as a foundation for their design education in our Program.

It was intentionally post-colonial thinking to have the first Culture course called **Sacred Places** (ARCH 1007) rather than repeat Western architectural history and it was equally intentional to have themed Design Studios: 1) Place, 2) Landscape, 3) Northern Building, and 4) Integrated Design in the BAS Program. This sequence delivers a design education in an open but at the same time focused manner on the study of place. Some of the

MSoA 4th Year Park-ing Day Installation, 2017

issues guiding our social context include: Why are we here and not elsewhere? What does Northern Ontario culture have to offer to the study of program and climate? How does seven-generational thinking and placing life at the centre (rather than us) impact the way that we approach sustainability in design? These are some of the questions that have emerged as the Program worked in local places, often with local communities. The intent is to educate students in a series of practical situations that will allow them to extrapolate particular lessons and then apply them to global scenarios and situations. The graduate program builds upon this, with instructors choosing Northern European or Northern Canadian contexts or subjects to explore 'near and far,' often taking lessons back from the field to reflect upon in Sudbury, and vice versa.

The same is true of the Professional Practice stream through the diverse Co-op Program. Students often begin working in offices close to where they came from, but as they move through the Program, they travel further away, choosing to work for a particular firm or in a particular city for that experience. With many French speaking students, we are trying to build up a network of offices in Ottawa or Montréal where they can work. Many Co-op employers have commented that they appreciate our students for their hands-on projects displayed in their portfolios (including birch bark canoes) as well as for their respectful and yet critical thinking. A design education that fosters critical thinking and respect for the land is very different than one that is object oriented and offers formal solutions to the community.

Our curriculum has a DNA embedded in it that fosters community design, collaboration between students, and questions ecological thinking as part of sustainable design. The Design Studio instructors and the projects themselves are carefully chosen to reflect these differences.

The Technology stream is also designed to be non-generic, with a focus on wood as a material. **Structures 1: Wood** (ARCH 2316) explores designing with wood in many forms, including milled wood, bent wood structures, and even learning multiple wood joints to see how different one material can be. This course is offered in the same term that second year students have traditionally built birch bark canoes as a further exploration of one sustainable material through a masterfully designed sacred object. A key course in third year is called **The Well-tempered Environment** (ARCH 3306), placed there to start by exploring passive systems first, and then moving up to more complex building systems in **Structures 3** (ARCH 4316). Courses on **Architecture & Ecology** (ARCH 2326), **Design for Climate Change** (ARCH 2306), and **Cultural Sustainability** (ARCH 4016) intentionally blur the lines between Technology and Culture, seeking to weave together the social and technical, as students learn through the mode of design. **Building Case Studies** (ARCH 4006) and the study of precedents runs throughout the Program all the way to Thesis in order to have students learn from best practices, while **Canadian Art and Architecture** (ARCH 2036) exposes them to the study of key Canadian buildings (and changing intentions and materials) during the past 50 years.

In terms of Design Education, "pride of place" depends not only on studying and understanding the place where we study and live, but also experiencing it through land-based learning opportunities. This results in an increased appreciation for the intricacies of the landscape and our shared habitation of it with all life. The Indigenous influence on the School's pedagogy and culture in second year Design Studio is intended to contribute in a number of significant ways: 1) by encouraging Indigenous faculty members to teach in the Program, and by welcoming our in-house Elders and Knowledge Carriers into the architectural learning environment to share their experiences and teachings about placed-based learning that can lead to productive directions of design inquiry; 2) to introduce and educate our community about contemporary conversations surrounding Truth and Reconciliation and what this means for design professionals; and 3) to help our students and faculty better understand the cultural specificities of place through storytelling, cultural awareness, language, and land stewardship. Indigeneity is addressed in other courses, such as learning about bent wood in **Structures 1** (ARCH 2316) as a regionally important construction type. This design education continues in the Master's Program with an optional graduate studio titled **Indigenous Design** (ARCH 5525) where students have the opportunity to work with an Indigenous instructor on a related theme. While each of the support courses have their own content and delivery, they are intended to educate students in preparation for approaching building and environmental design with sensitivity and understanding. At the graduate level, these goals are elevated to demonstrate knowledge of design that culminates in their own design thesis subject matter and demonstration. The relationship between the Design Studios and other core courses – both across the years horizontally and in sequence vertically (i.e. Structures 1, 2, 3) - is never easy to fully integrate. This remains one of our biggest challenges as a new Program.

PPC 3 - Global Perspectives and Environmental Stewardship

> *The Program must demonstrate how it embraces the diverse contexts that define contemporary architecture, including local, global, and environmental interests .*

Related to our Program's emphasis on 'place', the MSoA approaches 'sustainability' in a holistic way throughout our degree programs. Sustainable and Environmental walk hand-in-hand throughout our Design Studio sequence. While there are shared universal principles associated with 'sustainability', these cannot be considered in

isolation without local and regional perspectives that carry with them thousands of years of living harmoniously with the land in a specific location. To restore regenerative and synergetic relationships with the land requires much more than calculations about carbon footprints and energy saving strategies, which are also essential to prepare our students for their professional responsibilities. We feel that cultural diversity is critical to our approach to environmental education and that this starts with our emphasis on the Indiegnous knowledge of our region. This is why we have emphasized the role of second-year students building birch bark canoes and wigwams, taught by Elders and Knowledge Carriers, not only to understand lessons about superior material optimization and performance, but also the teachings that define the 'making' process as one grounded in a worldview that seeks to minimize waste and build relationships with the natural world, while still serving precise functions. Core courses in second-year - namely **Design for Climate Change** (ARCH 2306) and **Architecture and Ecology** (ARCH 2326) - reinforce these teachings by learning about the science of climate change and the complexity of our global ecological systems. The third-year mandatory course called **The Well-Tempered Environment** (ARCH 3306), re-emphasizes the importance of passive systems, while the capstone undergraduate studios **Integrated Design 1 & 2** (ARCH 4505 & 4515) bring all of these lessons together through a complex integrated design project during two terms of the academic year.

While there has always been a strong locally-informed pursuit of Indigenous knowledge and sustainability throughout our Program, we also stress that the idea of place-based learning is, by necessity, global. A central aspiration of our curriculum is thus to emphasize that all places have unique ecologies and environmental conditions, but also specific cultural responses to these places that should be respected and sought after as design thinkers. It is worth noting that our Program's first Culture course is titled **Sacred Places** (ARCH 1007) and offers students a broad introduction to multicultural approaches to scaredness through design. A fourth-year course titled **Cultural Sustainability** (ARCH 4016) similarly emphasizes the "cultural and social dimensions embedded in the built environment" and is currently taught by Dr. Émilie Pinard, a recently named UNESCO Chair.

It is also essential to note that a central aspect of our pedagogical approach to topics such as sustainability is our emphasis on *experiential learning* - locally, regionally, and abroad. As we conduct field-trips and travel through design studios, we believe that it is critical to engage with topics about ecological stewardship by experiencing the land as a central aspect of student learning. Students

MSoA Students in Dinkelsbuhl, Germany, 2014

have paddled down the French River to better understand our region's watersheds and how they influenced the fur trade and western colonial expansion. They also spend significant time throughout their education in our local natural environments to study water, insects, and animal habitats. For instance, every second-year cohort travels to the *Canadian Ecology Centre* near Mattawa for a multi-day immersive experience to learn about sustainable wood products and our regional Boreal and Great Lakes-St.Lawrence forest ecologies, with activities that include snow shoeing through the forest to identify tree species, and how to use Global Positioning System (GPS) equipment. In **Structures 1** (ARCH 2316), students travel to a local sawmill to learn about sustainable forestry practices, where they tour the mill as well as have a lecture by forestry experts.

Beyond our regional interest in place as a central inspiration for design, the MSoA has actively participated in a global conversation about sustainability, seeking out learning opportunities consistent with our pedagogical focus areas in other locations. For instance, there have been multiple summer study-abroad opportunities for students to live and learn about wood construction in Dinkelsbuhl, Germany, with Master Lecturer Randall Kober. This program has consistently had 12-16 students who have worked on various projects with clients in Germany while traveling throughout Austria and northern Italy to study wood construction and meet master designers and craftspeople in these regions. Similarly, Professor Tammy Gaber has led multiple teams to Bergen, Norway, to compete in an international wood festival, where students design and build wood installations. The MSoA team won this competition in 2016. Recent graduate studios have traveled to Marseilles and other regions of France, Denmark, Iceland, New Mexico and Southern Louisiana. Meanwhile, annual undergraduate field trips include Toronto (first year), Montréal (third year), and Chicago/ Detroit (fourth year), where students gain important insights to issues facing larger urban centres. A group of students were planning to travel to South Korea for a learning opportunity with Professor Shannon Bassett in 2020 prior to the pandemic and we have had preliminary discussions about additional study abroad opportunities for students in Italy and China, for example. Professor Bassett has also led annual competitions by the National Capital Commission (NCC) in Ottawa two years in a row, where students visit the site and often have lectures or tours with respected architects such as Douglas Cardinal. All of these expose students to global perspectives.

PPC 4 - Collaboration, Leadership, and Community Engagement

> *The Program must demonstrate how it supports and fosters effective individual and team dynamics, a spirit of collaboration and inclusion, community engagement, and diverse approaches to leadership.*

The MSoA was uniquely born from a Sudbury community group initiative and vision, demonstrating the long standing relationship the School has maintained with our community. From these beginnings, and as stated in Section 1.1, the core values adopted by the Program were RESPECT, INCLUSION and COMMUNITY, and these remain central to the aspirations and identity of our Program. The School was initially administered by a full-time faculty of 6 and a few key staff members, which has grown incrementally over the years to reach our current team. The governance of the School was thus initially a committee of the whole, where all faculty were involved in its development. However, beginning in January 2018, the School recognized the importance of establishing a Constitution along with Standing Committees that would meet the University's expectations for collegial governance as per Laurentian's *Collective Agreement*, while serving the increasing demands of our growing program. The process of confirming the responsibilities of these committees, as well as reporting mechanisms and decision-making processes, has taken the School the past 2.5 years to develop, and a collegial governance structure now exists that can serve the School moving forward (see Appendix L). The decision-making body for the School is the MSoA School Council, which meets at least monthly during the academic year, and is composed of the full-time faculty as voting members, chaired by the Director. There is also Sessional representation (with voting rights), as well as staff and student representation (without voting rights) on the School Council. The standing committees each have unique Terms of Reference and are composed of faculty, staff, and students. Their responsibility is to discuss items and recommend decisions to the School Council for voting. Thus the committee structure is intended to provide multiple opportunities for all members of our community to engage with topics concerning the School and have their voices heard. With 6 standing committees currently, this means that more than a third of our full-time faculty members have a chance to Chair a committee and sit on multiple others with the intent that equitable contributions to School governance will be achieved. Given that we have only had these committees operational for a few years, there have been some imbalances in the workload between committees that we are currently trying to address through some restructuring.

Within the curriculum, the School has always adopted a studio 'team teaching' approach within the undergraduate program where one faculty member coordinates the team during each academic year. This results in a collaborative

spirit between each year's team, where instructors contribute within their areas of strength to the entire cohort, while dedicating the bulk of their teaching efforts to their section of students. For the past couple of years the School Council has also voiced our aspiration towards a "faculty rotation policy" that allows for a faculty member to teach 2-3 consecutive courses in the graduate program (studio, research seminars, or thesis coordination), before being shifted into the undergraduate program. We recognize this is not always possible for various reasons, however, the collective intent is to have all faculty dedicated to developing both undergraduate and graduate programs - not having some faculty confined to one or the other, which we feel is an inequitable scenario.

From the student experience perspective, the curriculum also promotes the idea of collaborative work throughout the Program, with multiple group assignments and design-build projects where teams must work together to meet schedules and in the case of building, a budget. The final studio of the undergraduate degree similarly involves working with a partner or in small groups for the entire academic year.

Lastly, our emphasis on community engagement has already positively impacted our city and region since opening our doors. Students and faculty have worked with various community groups in the City of Greater Sudbury including: annual first-year Ice Stations projects, wigwam construction at the Laurentian University main campus, play structures in Copper Cliff, a design-build installation at Dynamic Earth, visioning for a senior's building in Downtown Sudbury, landscape visioning for Christ the King Church, community design and planning in the Flour Mill area, farmer's market installations in Downtown Sudbury and in Sault Ste. Marie, and repeated studies throughout Downtown Sudbury, including studies of Rotary and Kivi Parks.

In 2020, the MSoA launched an international design competition titled "Sudbury 2050", in conjunction with our MSOA Advisory Board, which began with discussions surrounding the City's recent declaration of a climate emergency and how this could bring positive change to the city. We hosted a workshop in November of 2019, led by Advisory Board member and founder of the *Living Building Challenge*, Jason McLennan, that was well-attended by our students and faculty as well as various community members (including city councilors and planners). Such initiatives continue to develop the School's reputation of providing leadership in sustainability design topics for the city.

Within the region, our Design Studios and courses have also completed community-based initiatives in Sault Ste. Marie, visions for a library design in Powassan, and a seniors' living complex in Chapleau, for instance. Graduate studios have traveled to the James Bay coast to work with the MoCreebec First Nation in northern Ontario as well as with a number of Innu and Inuit communities in northern Quebec, in partnership with Laval University. We have also partnered with many of our regional Indigenous communities in numerous studios and other courses and initiatives (Wahnapitae First Nation, Batchewana First Nation, Atikameksheng Anishinabek, Henvey Inlet First Nation, Sagamok First Nation, Whitefish River First Nation, Sudbury Métis Council). Emblematic of the School's focus on community design, in 2019 the Rotary Club of Sudbury honoured the School's founding leadership (Blaine Nicholls, Kate Bowman and Founding Director Terrance Galvin) with the Paul Harris Fellowship, the organization's highest honour, in recognition for their 'service above self' to the community.

PPC 5 - Technical Knowledge

> *The Program must describe how it engages fundamental and emerging technical aspects of building construction.*

A core tenet of the MSoA curriculum is the belief that students of architecture learn about the principles of construction most effectively through making. Thus, the Design-Build aspirations of the Program centre around collaborative student efforts to learn about materials by working with them, studying and applying their tectonic expressions, and that this process frames their understanding of buildings. The first-year Ice Stations project has been improving every year, demonstrating how early architectural education can lead to beautiful installations that serve the community. In addition, over the past 7 years students have demonstrated their technical knowledge in building various installations at farmer's markets, a pavilion at Dynamic Earth, an installation in Laurentian University's Founder's Square, a series of installations throughout Downtown Sudbury parking stalls, play structures for a local non-profit community group, full scale saunas, ice fishing huts, and the structure for a wood drying shelter on the School's property. A graduate studio led by Randall Kober is now planning to build a pedestrian bridge with Sagamok First Nation. The physical model as a pedagogical tool of technical knowledge is further used throughout our studios and other core courses, including a full scale built artifact that is assigned in **Fabrication 2** (ARCH 5326) during the final semester of the Master's thesis. This reinforces the emphasis throughout the combined degrees that the manifestation of the conceptual idea in architecture - through material expression - is paramount.

The MSoA Technology stream builds from the first-year Ice Station project to second-year core courses such as **Design for Climate Change** (ARCH 2306), where students are taught the basics of building science through the lens of global climate systems and the importance of site-based passive strategies. Concurrently, students are taught **Structures 1** (ARCH 2316) with an emphasis on

MSoA Faculty, Students and Community Meembers at Regenerative Design Workshop led by Jason McLennan, November 2019

wood construction through understanding basic principles of structure (forces, tension/compression, moment, sheer). In third year, **The Well-Tempered Environment** (ARCH 3306) and **Structures 2** (ARCH 3316) build upon the previous courses by layering in more technological complexity. In the 4th year of the BAS Program, and in support of the Design Studio's comprehensive design curriculum, **Structures 3** (ARCH 4316) focuses on the relationship between the building structural systems, including envelope, while **Digital Fabrication** (ARCH 4306) challenges students to understand the role that technology itself plays in the making process - both in terms of understanding the possibilities that the customized production of components can have on design thinking, and the design of the tool itself. The 4th year **Integrated Design 1 & 2** Studios (ARCH 4505 and 4515) is where students bring their undergraduate technical knowledge together into designing a complex building typology (mixed-use) with a focus on urban issues facing our northern cities. Final deliverables include an integrated approach to design, building code analyses, resolved HVAC and lighting considerations, structural design, and building envelope details (in addition to urban site strategies) and overall building massing.

During the MArch Program, the Fabrication courses (**Fabrication 1** - ARCH 5306 - in the first year of the Program, and **Fabrication 2** - ARCH 5326 - in the final year) continue to develop students' understanding of how materials are made and emphasize advanced approaches to craft. In **Fabrication 1**, the emphasis is on developing confidence in using Rhino and Grasshopper to design assemblies that take advantage of our digital tools (with an emphasis on the CNC machine), including custom designed joints. **Fabrication 2** allows more flexibility for students to explore the crafting of an artifact using digital or manual tools and methods, or a hybrid approach, as it relates to their thesis questions.

PPC 6 - Breadth of Education

> *The Program must demonstrate how it provides an opportunity for students to participate in general studies and elective studies in the pursuit of a broad understanding of human knowledge and a deeper study of topics within the discipline of architecture.*

Given that many of our undergraduate students are entering our Program straight out of high school, the initial curriculum built in several opportunities (24 credits) for University level courses outside of the Architecture Program. These elective courses offer general studies as well as the chance for students to complete a minor in another field (i.e. Environment, History, etc.). The remaining courses (96 credits) are in the domain of design, but we have listed several courses as "general" within the Program, and opened these courses up to the wider university as well (i.e. ARCH 2036, ARCH 2306, etc.). This structure ensures that students receive a broad understanding of human knowledge through electives in psychology, film, social sciences, photography, etc. that provide a base that ideally assists them in achieving a deeper understanding of the study of architecture and design. Current budget cuts at LU have led to the suspension of admissions to some of the smaller programs, negatively affecting the roster of available electives for MSoA students (i.e. photography, archaeology, anthropology, geography, modern languages and music). This raises concern for the proper diversity in elective choices and begs the question of offering more in-house architecture electives moving forward.

Within our 6 year-long professional Program, the first two years are delivered as a foundation for the study of architecture and design, years three and four further depth and breadth of programs, technologies and integration through design, and then years five and six change modes to focus on graduate study delivery, including an 8-month Co-operative placement in an office, and finally the formulation of an individual design thesis led by the student with her/his Advisor and Reader.

Addressing the 'Breadth of Architecture' as a holistic and integrated approach through pedagogy, the MSoA has two undergraduate Co-operative terms that send students into different fields as a strategy for seeing the larger context for architecture, as well as offering guided field trips to industries related to design. This allows students to see the various parallel processes in construction and design first hand. The Lecture Series and guests to studio also build upon a student's general education, allowing them to be exposed to a wide range of approaches to design and construction. Finally, many of our indigenous moments in the Program are not about Architecture per se, but rather provide teachings that allow students to consider the implications of the environment, ethical behavior, use of materials, and integrated thinking. The lessons that the Elders and Knowledge Carriers pass on allows students to reflect upon human knowledge, some of which is too easily forgotten.

In summary, students have an opportunity for breadth of knowledge through electives, lectures, Co-operative courses and placements, and exposure to Elders. This progresses throughout the Program to address depth of knowledge through increasingly complex Design Studios, leading to the smaller number (9-12 students) of focused graduate studios in M1. Technical courses, Co-operative courses and cultural courses support this pedagogy, culminating in the MArch thesis work of each student. The Program follows a trajectory from the simple to the complex, through a matrix of interrelated threads.

3.11.2 Student Performance Criteria

> *The APR must include:*
> *• an overview of the curricular goals and content of the Program;*
> *• a thematic summary of how the... twenty four student performance criteria (SPC) are acknowledged in the structure and deployment of the curriculum described below;*

The SPC matrix allows an Architecture Program to see trends and patterns of both strengths and weaknesses, depending upon how the curriculum fits together. Throughout the development of our Program, the faculty have discussed the SPCs in relation to courses and as part of the overall curriculum. For a significant period of time, we printed up a large version of the matrix and left it in the boardroom for faculty to refer to. The MSoA also uploaded course material and discussed the SPC matrix together as a graphic reflection of the entire professional program (BAS and MArch) together. With our focus on Design-Build, Community-based design and Collaboration (including much group work and Co-op placements), various related SPCs regarding Materials (C2), Detail Design (A7) and Design Skills (A2) are apparent throughout the entire curriculum, as is Critical Thinking and Communication (B1). Our Co-op Program directly addresses Professional Practice (E) and internship during four Co-op placements, but this also requires ARCH 5906 (Architectural Practice) as the foundation for the five SPCs in grouping E that are not necessarily - or uniformly - delivered to each student through Co-op experience.

The four streams of our Program (Design, Culture, Technology, and Professional Practice) map quite directly onto four of the CACB's five categories. In order to deliver courses within those 4 streams, we have opted to spread the SPCs throughout all six years of the professional program.

Our emphasis on Indigenous worldviews directly addresses Cultural Diversity and Global Perspectives (B4), present throughout Design Studio and Core courses at undergraduate and graduate level. Related to this, our "Culture" courses, for example, history, theory, and Critical Thinking (B1) are directed towards exploring histories other than the Western canon. Ecological Systems (B5) combined with Seven Generational thinking or Traditional Ecological Knowledge (TEK) becomes innovative in many ways. Not surprisingly, Materials (C2) is the focus of several courses and assignments, including a modest "materials library" in our MSoA Library. Comprehensive Design (D1) is one of the SPCs that we directly address through **Integrated Design 1** (ARCH 4505) and **Integrated Design 2** (ARCH 4515) in the final year of the BAS. These are some of the correspondences between the SPCs and the mandate of our Program.

The following two pages offer the required 'graphic matrix' of each course and the SPC it addresses. Following the matrix is a brief description of where each SPC is met in the BAS and the MArch Programs. This narrative corresponds with the 'graphic matrix'. Below each SPC in the text, we have listed Design Studios and Core Courses separately for Program clarity. Each of the 5 SPC groupings (A to E) also has an introductory paragraph.

3.11 Performance Criteria

Canadian Architectural Certification Board (CACB) Student Performance Criteria	Requirement: U = Understanding A = Ability	MSoA Bachelor of Architectural Studies (BAS) Courses = 120 credits																					
		BAS Year One	ARCH 1505 Studio 1: Place	ARCH 1006 Design Thinking	ARCH 1515 Studio 2: Place II	ARCH 1007 Sacred Places	**BAS Year Two**	ARCH 0100 Co-operative Term 1A	ARCH 2505 Studio 3: Landscape	ARCH 2306 Design for Climate Change	ARCH 4526 Arch'l Communications	ARCH 2316 Structures 1: Wood	ARCH 2515 Studio 4: Landscape II	ARCH 2326 Architecture & Ecology	ARCH 2036 Canadian Art & Arch.	**BAS Year Three**	ARCH 0100 Co-operative Term 1B*	ARCH 3505 Studio 5: Northern Building	ARCH 3006 Indigenous Precedents	ARCH 3316 Structures 2: Connections	ARCH 3515 Studio 6: Northern Building II	ARCH 3306: Well Tempered Environment	ARCH 3017 Writings in Architecture
A1. Design Theories, Precedents, and	**A**																						
A2. Design Skills	**A**																						
A3. Design Tools	**A**																						
A4. Program Analysis	**A**																						
A5. Site Context and Design	**A**																						
A6. Urban Design	**A**																						
A7. Detail Design	**A**																						
A8. Design Documentation	**A**																						
B1. Critical Thinking and Communication	**A**																						
B2. Architectural History	**U**																						
B3. Architectural Theory	**U**																						
B4. Cultural Diversity and Global Perspectives	**U**																						
B5. Ecological Systems	**U**																						
C1. Regulatory Systems	**U**																						
C2. Materials	**U**																						
C3. Structural Systems	**U**																						
C4. Envelope Systems	**U**																						
C5. Environmental Systems	**U**																						
D1. Comprehensive Design	**A**																						
E1. The Architectural Profession	**U**																						
E2. Ethical and Legal Responsibilities	**U**																						
E3. Modes of Practice	**U**																						
E4. Professional Contracts	**U**																						
E5. Project Management	**U**																						

**The APR must include a graphic matrix that cross-references each course with the student performance criterion (SPC) it addresses.*

	Master of Architecture (MArch) Courses = 48 credits																					
BAS Year Four	ARCH 0300 Co-operative Term 2	ARCH 4505 Studio 7: Integrated Design	ARCH 4016 Cultural Sustainability	ARCH 4316 Structures 3: Building Systems	ARCH 4515 Studio 8: Integrated Design II	ARCH 4006 Building Case Studies	ARCH 4306 Digital Fabrications	**MArch Year One (Year Five Overall)**	ARCH 5505 Studio 9: Architecture & Craft	ARCH 5515 Studio 9: Community Building	ARCH 5525 Studio 9: Indigenous Design	ARCH 5306 Fabrication 1	ARCH 5906 Architectural Practice	ARCH 5915 Co-op Term 3	**MArch Year Two (Year Six Overall)**	ARCH 5925 Co-operative Term 4	ARCH 5555 Thesis Studio 1	ARCH 5316 Faculty Research Seminar	ARCH 5326 Fabrication 2	ARCH 5006 Arch. Theory Seminar	ARCH 5565 Thesis Studio 2	ARCH 5086 Material Culture	**Canadian Architectural Certification Board (CACB) Student Performance Criteria**
																							A1. Design Theories, Precedents, and Methods
																							A2. Design Skills
																							A3. Design Tools
																							A4. Program Analysis
																							A5. Site Context and Design
																							A6. Urban Design
																							A7. Detail Design
																							A8. Design Documentation
																							B1. Critical Thinking and Communication
																							B2. Architectural History
																							B3. Architectural Theory
																							B4. Cultural Diversity and Global Perspectives
																							B5. Ecological Systems
																							C1. Regulatory Systems
																							C2. Materials
																							C3. Structural Systems
																							C4. Envelope Systems
																							C5. Environmental Systems
																							D1. Comprehensive Design
																							E1. The Architectural Profession
																							E2. Ethical and Legal Responsibilities
																							E3. Modes of Practice
																							E4. Professional Contracts
																							E5. Project Management

3.11 Performance Criteria

A. Design (Eight SPC)

The majority of the focus on "design" as an iterative creative process occurs in our Design Studios, which form the spine of the MSoA Design Stream. Each semester of the combined program includes a studio course, except for the Co-op terms. The studios are 6 credits out of a normal 15 credit workload per semester, and are the emphasis of the MSoA curriculum. For instance, of the 91 times that category A (Design) shows up on our BAS matrix, 62 of them are addressed through the Design Studio (68%). While all studios include aspects of many of the SPCs we have tried to focus on a few key aspirations for each, with the number of SPCs generally increasing throughout the Program along with the complexity of the projects. For instance, A4 - Program Analysis is only introduced as a requirement for 3rd and 4th year BAS studios, as the introductory studios in first and second year deal with more straightforward programs.

***A1. Design Theories, Precedents, and Methods**. The student must demonstrate an ability to articulate a design process grounded in theory and practice, an understanding of design principles and methods, and the critical analysis of architectural precedents.*

Studios: ARCH 1515, 3515, 4505, 4515, 5505, 5515, 5525, 5555, 5565
Core Courses: ARCH 2036, 3006, 4306, 5316, 5086

A1 is first introduced in **Place 2** (ARCH 1515) - the second studio in 1st year - as an introduction to articulating a critical response to a design challenge with a minimal program. In 2nd year Design Studios the emphasis is on design strategies that are less based on theory and strongly emphasize the role of the landscape, ecology, and site as primary design drivers. Similarly, 3rd year studio, **Northern Building 2** (ARCH 3515) focuses on community, and the northern design context. Thus, A1 is addressed in these studios becoming a strong contributor to **Integrated Design 1 & 2** (ARCH 4505 & 4515) in 4th year. **Canadian Art and Architecture** (ARCH 2036), **Indigenous Precedents** (ARCH 3006), and **Digital Fabrication** (ARCH 4306) are core courses that also require students to articulate a design process, method, or precedent as defined by this SPC.

In the MArch Program, A1 is further addressed in **Architecture and Craft** (ARCH 5505), **Community Design** (ARCH 5515) and **Indigenous Design** (ARCH 5525), as well as **Thesis 1 & 2** (ARCH 5555 & 5565) studios, **Faculty Research Seminars** (ARCH 5316) and **Material Culture** (ARCH 5086).

***A2. Design Skills.** The student must demonstrate an ability to apply design theories, methods, and precedents to the conception, configuration, and design of buildings, spaces, building elements, and tectonic components.*

Studios: ARCH 1505, 1515, 2505, 2515, 3505, 3515, 4505, 4515, 5505, 5515, 5525, 5555, 5565
Core Courses: ARCH 0300, 3006, 4526, 4306, 5306, 5086

As expected, the application of design skills through ability is included in all 13 Design Studios (ARCH 1505 through ARCH 5525) throughout the Program as it allows a broad range of pedagogical influences on the design process to be addressed through student abilities. Design Skills should be self-evident in **Thesis 1 & 2** (ARCH 5555 & 5565) as our Program ends with a 'design' thesis. In addition to Design Studios, other courses that emphasize the creative manifestation of design include: **Co-op 2** (ARCH 0300), where the intent is that students begin to make correlations between their coursework and their hands-on experience working for a variety of design related offices, **Indigenous Precedents** (ARCH 3006), **Architectural Communications** (ARCH 4526), and **Digital Fabrication** (ARCH 4306) in the BAS degree. In the MArch Program, **Fabrication 1** (ARCH 5306) and **Material Culture** (ARCH 5086) both have a strong emphasis on making and applying design skills in their deliverables.

***A3. Design Tools.** The student must demonstrate an ability to use the broad range of design tools available to the architectural discipline, including a range of techniques for two- dimensional and three-dimensional representation, computational design, modeling, simulation, and fabrication.*

Studios: ARCH 1505, 1515, 2505, 2515, 3505, 3515, 4505, 4515, 5505, 5515, 5525, 5555, 5565
Core Courses: ARCH 1006, 0300, 4526, 4306, 4316 5306, 5086

There are also many points throughout the curriculum where A3 is addressed. All Design Studios rely on students to demonstrate their ability to communicate their ideas through various forms of representation and A3 is included in all of the BAS studios and all of the graduate studios, until **Thesis 2** is completed (ARCH 5565). **Architecture and Craft** (ARCH 5505), **Community Design** (ARCH 5515) and **Indigenous Design** (ARCH 5525) all involve students using the skills acquired during their undergraduate degrees and improve them at the graduate level. Similar to A2, **Architectural Communications** (ARCH 4526), **Co-op 2** (ARCH 0300), **Structures 3: Building Systems** (ARCH 4316), and **Digital Fabrication** (ARCH 4306) all have strong curricular goals to strengthen the student's overall design toolbox. **Fabrication 1** (ARCH 5306) and

Material Culture (ARCH 5086) also place strong emphasis on the use of model making and iterative fabrication processes as critical means of synthesizing ideas through the coursework.

A4. Program Analysis. *The student must demonstrate an ability to analyze and respond to a complex program for an architectural project that accounts for client and user needs, appropriate precedents, space and equipment requirements, the relevant laws, and site selection and design assessment criteria.*

Studios: ARCH 3505, 3515, 4505, 5515, 5555
Core courses: ARCH 4006

In the BAS Program there are three Design Studios that specifically emphasize the requirement for students to deal with complex programs - **Northern Building 1 & 2** (ARCH 3505 & 3515) and **Integrated Design 1** (ARCH 4505). As mentioned above, the earlier studios in the Design stream sequence do not involve very complex programs, whereas Program is the focus of the Fall semester in **Integrated Design 1** (ARCH 4505). **Building Case Studies** (ARCH 4006) is a Culture course that addresses the complexity of Program through select case studies. Of the three 1st year MArch studio options, **Community Design** (ARCH 5515) typically addresses program analysis directly; there is more flexibility in ARCH 5505 and 5525 studios to allow for different kinds of program exploration. For instance, in support of the School's pedagogical emphases on wood design, design-build, and Indigenous design, these studios have involved other forms of design exploration (i.e. furniture design, bridge design, exhibit design, canoe making, etc.). **Thesis 1 & 2** (ARCH 5555 & 5565) are again where students propose and adjust architectural programs to suit their thesis intentions, but space and equipment as well as relevant laws are not applied uniformly throughout the range of thesis propositions to strongly include both of those courses for this SPC.

A5. Site Context and Design. *The student must demonstrate an ability to analyze and respond to local site characteristics, including urban, non-urban, and regulatory contexts; topography; ecological systems; climate; and building orientation in the development of an architectural design project.*

Studios: ARCH 1505, 1515, 2505, 2515, 3505, 3515, 4505, 5555, 5565
Core Courses: ARCH 2306, 3306

Our Program has a strong emphasis on Site Context and ecological systems as primary design drivers. Thus, A5 is included in all BAS Design Studio SPCs up to **Integrated Design 1** (ARCH 4505). We hold a strong belief that the first priority of design is to respectfully respond to the specific parameters of the place and that this ultimately supersedes all theoretical aspirations. In support of this, in the BAS Program, **Design for Climate Change** (ARCH 2306) reinforces the role of site and environment by teaching the importance of basic passive energy principles through a design exercise, and **Well-Tempered Environment** (ARCH 3306) further covers site context as the basis for passive design principles. In the MArch Program, site generated design is further emphasized through **Thesis 1 & 2** (ARCH 5555 & 5565).

A6. Urban Design. The student must demonstrate an ability to analyze and respond to the larger urban context where architecture is situated; its developmental patterning and spatial morphologies; the infrastructural, environmental, and ecological systems; to understand the regulatory instruments that govern this context; the broader implications of architectural design decisions on the evolution of cities; and the impact of urbanism on design.

Studios: ARCH 3505, 3515, 4505, 4515, 5555
Core Courses: ARCH 4006

The role of larger urban contexts has less of an emphasis in our Program due to our focus on northern communities and landscapes. However, in the 3rd year of the BAS Program, **Northern Building 1 & 2** (ARCH 3505 & 3515) the design project looks specifically at an urban condition in Sudbury (art gallery, brewery, library, daycare, etc.), usually through an exercise of adaptive reuse. The full emphasis on larger urban contexts comes in 4th year during **Integrated Design 1 & 2** (ARCH 4505 & 4515) where students focus on a large mixed-use program in an urban setting. They also travel to Detroit and Chicago as part of ARCH 4515 to experience these larger contexts as an integral learning opportunity. Field trips to Toronto and Montréal in earlier years further offer exposure to urban design considerations. **Building Case Studies** (ARCH 4006) also addresses this SPC through a cultural lens. Many students pursue urban design topics in **Thesis 1** (ARCH 5555) in the graduate program, even if the issues in A6 are being applied to non-urban settings, such as First Nation Reserves or the transformation of agricultural settings or urban geographies.

A7. Detail Design. *The student must demonstrate an ability to assess, as an integral part of design, the appropriate combinations of materials, components, and assemblies in the development of detailed architectural elements through drawing, modeling, and/or full-scale prototypes.*

Studios: ARCH 1505, 1515, 3505, 4515, 5505
Core Courses: ARCH 2316, 4306, 4316, 5306, 5326

Material and tectonic considerations are considered integral to design thinking throughout our combined

professional Program. In both of our BAS 1st year studios, **Place 1 & 2** (ARCH 1505 & 1515) this is an important pedagogical emphasis as students are introduced to hands-on learning through various material explorations culminating in the design-build of Ice Stations on Ramsey Lake. The scale of the interventions are strategically reduced to allow for a focus on connection details and how components relate to one another. **Structures 1** (ARCH 2316) builds a foundation of knowledge about wood details through various course work, including hands-on learning through, for example, the expressive detailing of a simple sawhorse. In 3rd year, **Northern Building 1** (ARCH 3505), also requires students to examine their designs at various scales, which allows them to explore material connections. **Integrated Design 2** (ARCH 4515) has a rigorous focus on complex detail design, requiring students to fully develop various component relationships from structural systems to building envelope details, including wall sections. **Digital Fabrication** (ARCH 4306) focuses on the relationship between digital components and fabrication techniques, with an inherent emphasis on the design of the detail. Finally, **Structures 3: Building Systems** (ARCH 4316) requires students to work diligently to study complex design problems involving systems thinking (SPC A7 is an addition to the F2020 syllabus).

In the MArch Program, **Architecture & Craft** (ARCH 5505) places a strong emphasis on the design of tectonic expression through the detail including full-scale design-build projects and detailed drawings and models. Meanwhile **Fabrication 1** (ARCH 5306) and **Fabrication 2** (5326) remain focused on detail design through the design and craft of artifacts using a range of methods (digital, analog, and hybrid).

A8. Design Documentation. *The student must demonstrate an ability to document and present the outcome of a design project using the broad range of architectural media, including documentation for the purposes of construction, drawings, and specifications*.

Studios: ARCH 3505, 4515, 5505
Core Courses: ARCH 4316, 5306

While all Design Studios use architectural media to express student ideas, the emphasis on this criterion first occurs in our 3rd year BAS studio, **Northern Building 1** (ARCH 3505) that places an emphasis on developing coherent representations of ideas through various media, while the final **Integrated Design 2** (ARCH 4515) studio requires a comprehensive list of required drawings that challenges students to translate a complex set of requirements into compelling visual representations and design documents. **Structures 3** (ARCH 4316) also has exercises that focus on design documentation.

In the Graduate program, 1st year MArch studios often require detailed development of ideas, however, these studios are also intended to allow for more variation in terms of their requirements. Of the 3 optional graduate studios, **Architecture & Craft** (ARCH 5505) has often included this SPC. **Fabrication 1** (ARCH 5306) addresses documenting outcomes of various fabrication techniques. Students are ideally expected to enhance their experience regarding detail design, construction documentation, and specifications in an 8-month Co-op placement during Co-op 3 & 4.

B. Culture, Communications, and Critical Thinking (Five SPC)

The five SPC in this category are an integral part of any architectural education. Critical thinking runs throughout most of our actions, and like many Programs, we have linked critical thinking to communication (both verbal and graphic) through the manner in which we conduct reviews and debate issues in Design Studio critiques, from first year's Ice Stations all the way to **Thesis 2** (ARCH 5565) final Review/Exams where we invite External Examiners to evaluate what each student does according to Faculty of Graduate Studies (FGS) standards. The first core course in the BAS Program, parallel to the first Design Studio, is called **Design Thinking** (ARCH 1006) to foreground the important role that 'design' plays in our profession and in the overall built environment. The addition of the term 'Culture' to this group of SPCs allows our Program to emphasize the many culturally relevant Design Studios that we embark upon, as well as having **Cultural Sustainability** (ARCH 4016) as a course in our initial curriculum. As Culture and Critical Thinking go hand in hand, the courses below indicate our delivery of this section.

B1. Critical Thinking and Communication. *The student must demonstrate an ability to raise clear and precise questions; record, assess, and comparatively evaluate information; synthesize research findings and test potential alternative outcomes against relevant criteria and standards; reach well-supported conclusions related to a specific project or assignment; and write, speak, and use visual media effectively to appropriately communicate on subject matter related to the architectural discipline within the profession and with the general public.*

Studios: ARCH 3505, 3515, 4505, 4515, 5505, 5515, 5525, 5555, 5565
Core Courses: ARCH 4526, 2326, 2036, 3306, 3006, 3316, 3017, 4006, 4016, 5906, 5316, 5006, 5086

The emphasis on this SPC builds throughout the foundational years of the BAS Program, beginning

with **Architectural Communications** (ARCH 4526), **Architecture & Ecology** (ARCH 2326) and **Canadian Art & Architecture** (ARCH 2036) during 2nd year, and then continues strongly in all 3rd and 4th year Design Studios (ARCH 3505, 3515, 4505, 4515) as well as all core courses during 3rd and 4th years (ARCH 3306, 3006, 3316, 3017, 4006 and 4016). The MSoA curriculum foregrounds critical thinking and communication as a means of encouraging students to become independent thinkers, with professors guiding them to express their positions through various means. There is an ongoing emphasis on iterations and testing ideas through creative visioning based on improving the living conditions of communities and broader society.

In the MArch Program, the first graduate studios **Architecture and Craft** (ARCH 5505), **Community Design** (ARCH 5515), and **Indigenous Design** (ARCH 5525) begin with independent thinking, and this continues into their individual thesis during **Thesis 1 & 2** (ARCH 5555 & 5565). Parallel to Thesis, the **Faculty Research Seminar** (ARCH 5316) and **Architectural Theory Seminar** (ARCH 5006) hone critical thinking skills through writing and representation, while **Architectural Practice** (ARCH 5906) also asks students to develop their B1 skills in relation to practice.

B2. Architectural History. *The student must have an understanding of the history of architecture and urban design in regard to cultural, political, ecological, and technological factors that have influenced their development.*

Studios: ARCH 5555, 5565
Core Courses: ARCH 1007, 2036, 3006, 3017, 4006, 4526

Early on in the Program, architectural history is addressed through our Culture Stream in **Sacred Places** (ARCH 1007), **Canadian Art and Architecture** (ARCH 2036), **Indigenous Precedents** (ARCH 3006), **Writings in Architecture** (ARCH 3017) and **Building Case Studies** (ARCH 4006). **Architectural Communications** (ARCH 4526) also raises questions about representation in relation to wider cultural, historical and technological issues. While every Design Studio involves some historical research and reflection, we highlight **Thesis 1** (ARCH 5555) in the MArch Program as an explicit place where students individually address their understanding of various histories in relation to their design intentions. This culminates in the writing portion of their MArch Thesis in **Thesis 2** (ARCH 5565).

B3. Architectural Theory. *The student must have an understanding of conceptual and theoretical frameworks and how they have shaped architecture and urban design.*

Studios: ARCH 5555, 5565
Core Courses: ARCH 2036, 3006, 3017, 4006, 5006, 5086

Undergraduate courses that introduce and draw upon architectural theory include **Canadian Art & Architecture** (ARCH 2036), **Indigenous Precedents** (ARCH 3006), **Writings in Architecture** (ARCH 3017) and **Building Case Studies** (ARCH 4006). Architectural theory is explicitly taught in our graduate **Architectural Theory Seminar** (ARCH 5006). The final term's **Material Culture** (ARCH 5086) course is also theory based. While history, theory and design often work hand-in-hand in Design Studios throughout the Program, students write detailed frameworks for their thesis explorations as part of **Thesis 1** (ARCH 5555) and **Thesis 2** (ARCH 5565). The final, bound MArch theses are the best place for 'individual' evidence of this SPC at the Graduate level.

B4. Cultural Diversity and Global Perspectives. *The student must have an understanding of the diverse needs, values, behavioural norms, and social/spatial patterns that characterize different global cultures and individuals and the implications of diversity on the societal roles and responsibilities of architects.*

Studios: ARCH 5515, 5525, 5555, 5565
Core Courses: ARCH 1007, 3006, 3017, 4016, 5006, 5086, 5906

The mandate for the MSoA is tri-cultural (including Francophone and Indigenous), which has allowed us to weave Indigenous Knowledge and include French speaking Design Studios throughout the Program. In first year, **Sacred Places** (ARCH 1007) addresses this SPC; other BAS core courses that address B4 include **Indigenous Precedents** (ARCH 3006), **Writings in Architecture** (ARCH 3017), and **Cultural Sustainability** (ARCH 4016) that directly studies global precedents. At the Graduate level, Design Studios including **Community Design** (ARCH 5515) and **Indigenous Design** (ARCH 5555) further focus on this SPC, as do **Thesis 1 & 2** (ARCH 5555 & 5565) where External Examiners have complimented thesis explorations due to diversity, ethical positions and locales. The relationship between the local and the global is an ongoing conversation underlying the MSoA curriculum, including the **Architectural Theory Seminar** (ARCH 5006). **Material Culture** (ARCH 5086) and **Architectural Practice** (ARCH 5906) are graduate courses that further this understanding.

B5. Ecological Systems. *The student must have an understanding of the broader ecologies that inform the design of buildings and their systems and of the interactions among these ecologies and design decisions.*

Studios: ARCH 2505, 2515, 5555
Core Courses: ARCH 2306, 2326, 3006, 3306, 5915, 5925

The emphasis on Ecological Systems is tied to the theme of Landscape in the second year of the BAS Program. In parallel to **Landscape 1 & 2** (ARCH 2505 & 2515), second year support courses addressing ecology include **Design for Climate Change** (ARCH 2306) and **Architecture and Ecology** (ARCH 2326). This ecological trajectory continues in third year with **Indigenous Precedents** (ARCH 3006), discussing indigenous worldviews and stewardship and the **Well-Tempered Environment** (ARCH 3306) that focuses on passive systems and best practices. At the Graduate level, ecological systems are evidenced throughout **Thesis 1** (ARCH 5555) as students frame their Thesis propositions in the first term. The graduate Co-op terms **Co-op 3 & Co-op 4** (ARCH 5915 & 5925) are also intended to expose students to ecological systems during their office experience.

C. Technical Knowledge (Five SPC)

The Technology Stream in the Program runs throughout beginning with **Structures 1:Wood** (ARCH 2316) in the fall of second year. The strategy in delivering technology in the Program is based upon systems thinking, emphasizing the integration of systems as a design imperative from the simple to the complex. Courses such as **Well-Tempered Environment** (ARCH 3306) intentionally begin with the study of passive systems and the reading of site and move on towards more complex building systems integration in **Structures 3: Building Systems** (ARCH 4316). The courses below relate to the delivery of the five specific SPC.

C1. Regulatory Systems. *The student must have an understanding of the applicable building codes, regulations, and standards for a given building and site, including universal design standards and the principles that inform the design and selection of life-safety systems.*

Studios: ARCH 2515, 3505, 3515, 4505, 4515
Core Courses: ARCH 4016, 5906, 5915, 5925

Some regulatory systems are addressed in the second year studio's second term **Landscape 2** (ARCH 2515), followed by third year Design Studios **Northern Building 1 & 2** (ARCH 3505 & 3515) as the Programs for building in the North introduce further complexity. Lectures and particular exercises introduce regulatory systems, including universal design, in second and third year, as well as some in **Cultural Sustainability** (ARCH 4016). This complexity continues in **Integrated Design 1 & 2** (ARCH 4505 and 4515), where codes and building regulations are examined in detail as part of the Design Studio. At the Graduate level, **Architectural Practice** (ARCH 5906) discusses C1 in lectures, while **Co-op 3 & 4** (ARCH 5915 and 5925) are where many of the regulations and regulatory systems become applied to various office projects that students work on.

C2. Materials. *The student must have an understanding of the basic principles used in the appropriate selection and application of architectural materials as it relates to fundamental performance, aesthetics, durability, energy, resources, and environmental impact.*

Studios: ARCH 1505, 3505, 4515, 5505,
Core Courses: ARCH 2306, 2316, 3316, 4316, 4306, 5306, 5326, 5086, 5915, 5925

Emphasis on the materiality of things begins with **Place 1** (ARCH 1505) Design Studio and design-build activity. This is followed up in third year, through **Northern Building 1** (ARCH 3505) often with some design-build or hands-on studio activity, and then in fourth year through **Integrated Design 1** (ARCH 4515). Core courses in the BAS that explicitly address material selection and their impact include **Design for Climate Change** (ARCH 2306), as well as a suite of three structures courses: **Structures 1: Wood** (ARCH 2316), **Structures 2: Connections** (ARCH 3316) and **Structures 3: Building Systems** (ARCH 4316). At the Graduate level, the **Architecture and Craft** (ARCH 5505) Design Studio situates learning around materials to another level, having had a foundation in the BAS Program. Introducing a discussion in materials and their application is a suite of three courses: **Digital Fabrication** (ARCH 4306), **Fabrication 1** (ARCH 5306) and **Fabrication 2** (ARCH 5326). In the final term **Material Culture** (ARCH 5086) addresses materials at the MArch level, and material performance is often introduced in **Co-op 3 & 4** (ARCH 5915 & 5925), depending on what our Co-op students do in their placements.

C3. Structural Systems. *The student must have an understanding of the principles of structural behavior in withstanding gravitational, seismic, and lateral forces, including the selection and application of appropriate structural systems.*

Studios: ARCH 1515, 4505, 4515
Core Courses: ARCH 2316, 3316, 4316, 5306, 5915, 5925

Any design-build exercise introduces students to confront structural systems and the nature of materials, so many of our Design Studios have this embedded within the studio exercise. It begins in **Place 2** (ARCH 1515) with group

design and construction of the Ice Stations, and continues in **Integrated Design 1 & 2** (ARCH 4505 & 4515) where students are required to address structural systems and their selection, often with an engineering consultant as well.

Core courses that deliver various components for understanding different cultural norms and the nature of materials include: **Structures 1** (2316) and **Structures 2** (3316) and **Structures 3** (4316) as well as **Fabrication 1** (ARCH 5306) at the Graduate level. We do include that students in **Co-op 3 & 4** (ARCH 5915 and 5925) will, in many cases, have their knowledge of structural systems 'improved' due to office experience.

C4. Envelope Systems. *The student must have an understanding of the basic principles used in the design of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, durability, energy, material resources, and environmental impact.*

Studios: ARCH 4515
Core Courses: ARCH 2306, 3306, 4316, 5915, 5925

Envelope Systems are intentionally one of the eight systems addressed in **Integrated Design 2** (ARCH 4515) in fourth year Design Studio. C4 gets introduced (hence 'understanding') in BAS core courses including **Design for Climate Change** (ARCH 2306), **Well-Tempered Environment** (ARCH 3306) and **Structures 3** (ARCH 4316). At the graduate level, **Co-op 3 & 4** (ARCH 5915 & 5925) may expose students to building envelope systems during their office experience.

C5. Environmental Systems. *The student must have an understanding of the basic principles that inform the design of passive and active environmental modification and building service systems, the issues involved in the coordination of these systems in a building, energy use and appropriate tools for performance assessment, and the codes and regulations that govern their application in buildings.*

Studios: ARCH 2505, 2515, 4505, 4515
Core Courses: ARCH 2306, 3306, 4316, 5915, 5925

The study of Environmental Systems begins in **Landscape 1 & 2** (ARCH 2505 & ARCH 2515) with the design of a small ecological building. C5 then becomes quite central to **Integrated Design 1** (ARCH 4505) and **Integrated Design 2** (ARCH 4515) in fourth year Design Studio. As in C4, C5 is introduced in BAS core courses including **Design for Climate Change** (ARCH 2306), it is addressed directly in **Well-Tempered Environment** (ARCH 3306) for passive systems, and again in **Structures 3: Building Systems** (ARCH 4316) for more active environmental systems. Finally, at a graduate level, **Co-op 3 & 4** (ARCH 5915 & 5925) should expose students to environmental systems during their office experience.

D. Comprehensive Design (One SPC)

As this is its own category, the detailed description below explains our Program strategy in addressing Comprehensive Design. This SPC is addressed at the end of both BAS and MArch Design Studios, albeit in different ways. The D1 SPC is met in ARCH 4505 and 4515.

D1. Comprehensive Design. *The student must demonstrate an ability to produce an architectural design based on a concept, a building program, and a site which broadly integrates contextual factors, structural and environmental systems, building envelopes and assemblies, regulatory requirements, and environmental stewardship.*

Studios: ARCH 4505, 4515, 5565

We intentionally created **Integrated Design 1** (ARCH 4505) & **Integrated Design 2** (ARCH 4515) to be the final BAS Design Studios. In that sense, they were conceived of as the version of a capstone project, as in Engineering. The two studios are sequential and span from September to April. Students work in teams of two on the same large-scale project during the Fall and Winter semesters. The Fall semester **Integrated Design 1** (ARCH 4505) project starts with a rigorous report where students present their complete site analysis, their detailed and complete program (students must define a significant portion of their own program within the studio themes and boundaries) and a site development strategy including a feasibility study to test their program on the site. The second assignment develops the concept and builds on the previous assignment to explore solutions that arise from the complexity and potential of the site and reflections on programming. At this stage, students must start reflection and integration of two systems that can drive architectural design: 1) urban design and 2) passive design and are expected to produce specific deliverables for these systems. The semester ends with another assignment where students refine their design, continue to develop the two initial systems and now have to tackle two additional systems: 3) structure and 4) daylighting. Systems and architectural design are approached in a holistic manner to inform one another. Students meet with a structural engineer (individual consultation) and benefit from studio wide lectures (on Zoning, Parking Design, Programming, Urban Design and Ecological Urbanism, Passive Systems, Daylighting, etc.) to support them in their integration and design efforts.

3.11 Performance Criteria

The Winter semester **Integrated Design 2** (ARCH 4515) starts with a rigorous building code analysis and report where students are asked to evaluate compliance of their Fall design (through a Matrix looking at a wide range of issues affecting architectural design: building classification, occupant loads, safety, means of egress and exits, plumbing facilities, fire separation, spatial separation and exposure protection, barrier-free design) in order to recommend design adjustments. The design refinement then continues with the next assignment, as students also continue to develop the four systems from the previous term, while now also working on two new systems: 5) building envelope (facade composition, materials and technical details) and 6) active systems (sustainable active systems to reduce the environmental impact). The project ends with a final assignment of design and systems refinement, introducing two final systems: 7) artificial lighting and 8) HVAC. Students once more meet with engineer consultants (structure and HVAC) and benefit from additional lectures (building code, building envelope, artificial lighting, etc.) to support them in systems integration. The final reviews include a complete presentation of the project, from site analysis and program to concept, to systems integration. Students must produce specific deliverables for each of the 8 systems tackled throughout the year, from HVAC diagrams, to envelope sections and details, to artificial lighting plans, to structural axonometric drawings, to passive sections, to annotated urban design plans, and so on. Throughout the various assignments, points are specifically assigned to design refinement versus systems integration and the systems deliverables become increasingly more important as student teams progress to guarantee that they invest the required efforts to reach the objective of the "Integrated" Design Studio. Special consideration is given to sustainability and wood (i.e. all projects must have a wooden structure), as these are central themes of the MSoA curriculum as a whole.

As the final Design Studio, **Thesis 2** (ARCH 5565) is again where students complete a synthetic design project based on a concept, program development and site selection, with a building proposition as their final design deliverable. Although the content and development of each Master's Thesis is individual - including a substantial written component (8,000 to 10,000 words minimum) describing the context and the design strategy - the common basis among all theses is to resolve the above variables via an architectural resolution. **Thesis 2** is comprehensive in many ways also as it aims towards the integration of many subject areas through the mode of design.

E. Professional Practice (Five SPC)

This suite of courses guiding Professional Practice is intended to be covered by **Architectural Practice** (ARCH 5906) as this course is positioned in the first term of the Graduate Program after students have completed **Co-op 2** (ARCH 0300) and before they embark on **Co-op 3 & 4** (ARCH 5915 & 5925). Courses that are in addition to these three related practice-oriented courses, are included in either Design Studio or Core courses below. ARCH 5906 is taught by a licensed professional architect.

E1. The Architectural Profession. *The student must have an understanding of the organization of the profession, the Architects Act(s) and its regulations, the role of regulatory bodies, the paths to licensure including internship, and the reciprocal rights and responsibilities of interns and employers.*

Core Courses: ARCH 0100, 0300, 5906, 5915, 5925

In addition to the key **Architectural Practice** course (ARCH 5906), and **Co-op 3 & 4** (ARCH 5915 & 5925), certain years we have had a representative from the OAA address the class, even in first year Design Studio. In the BAS Program we plan to add a lecture to **Co-op 1** (ARCH 0100) and a preparatory lecture before the start of **Co-op 2** (ARCH 0300) in order to introduce E1 as a repeating component in both the BAS and MArch Programs.

E2. Ethical and Legal Responsibilities. *The student must have an understanding of the ethical issues involved in the formation of professional judgment; the architect's legal responsibility under the laws, codes, regulations, and contracts common to the practice of architecture; intellectual property rights; and the role of advocacy in relation to environmental, social, and cultural issues.*

Core Courses: ARCH 3006, 4016, 5906, 5915, 5925

This suite of courses guiding Professional Practice is intended to be covered by **Architectural Practice** (ARCH 5906) as it is positioned in the first term of the Graduate Program after students have completed **Co-op 2** (ARCH 0300) and before they embark on **Co-op 3 & 4** (ARCH 5915 & 5925). In the BAS Program, **Indigenous Precedents** (ARCH 3006) and **Cultural Sustainability** (ARCH 4016) each touch on ethical and legal aspects of the profession enough to promote 'understanding' of this SPC.

E3. Modes of Practice. The student must have an understanding of the basic principles and types of practice organization, including financial management, business planning, entrepreneurship, marketing, negotiation, project management, and risk mitigation, as well as an understanding of trends that affect the practice.

Core Courses: ARCH 1006, 0300, 5906, 5915, 5925

This suite of courses guiding Professional Practice is intended to be covered by **Architectural Practice** (ARCH 5906) as it is positioned in the first term of the Graduate Program after students have completed **Co-op 2** (ARCH 0300) and before they embark on **Co-op 3 & 4** (ARCH 5915 & 5925). In the BAS Program, **Design Thinking** (ARCH 1006) will introduce a lecture on practice from a local practitioner and we intend to introduce a preparatory lecture before the start of **Co-op 2** (ARCH 0300) in order to have E3 as a repeating component in both the BAS and MArch Programs.

E4. Professional Contracts. *The student must have an understanding of the various contracts common to the practice of architecture.*

Core Courses: ARCH 5906, 5915, 5925

This suite of four Co-operative courses guiding our Professional Practice stream: ARCH 0100, 0300, 5915, and 5925 is intended to be complemented by **Architectural Practice** (ARCH 5906) as it is positioned in the first term of the Graduate Program after students have completed **Co-op 2** (ARCH 0300) and before they embark on **Co-op 3 & 4** (ARCH 5915 & 5925). We do not address Profesional Contracts in the BAS Program at this time.

E5. Project Management. *The student must have an understanding of the relationships among key stakeholders in the design process; the methods for selecting consultants and assembling teams; building economics and cost control strategies; the development of work plans and project schedules; and project delivery methods.*

Studios: ARCH 1505, 3505, 4505
Core Courses: ARCH 5326, 5906, 5915, 5925

In the BAS Program, first year students begin with costing, buying materials and developing work plans and schedules during the **Place 1** (ARCH 1505) Design-Build project 'Ice Stations' for Lake Ramsey. Students also go through these steps of project management with any other design-build studio project, including **Northern Building 1** (ARCH 3505) and **Integrated Design 1** (ARCH 4505). Such exercises educate students regarding the realities of cost and scheduling that apply within the Design Studio as well as in the profession. More directly, E5 is then covered in **Architectural Practice** (ARCH 5906) as it is positioned in the first term of the Graduate Program after students have completed **Co-op 2** (ARCH 0300) and before they embark on **Co-op 3 & 4** (ARCH 5915 & 5925). By this stage in their education, the idea of building economics is embedded. Finally, **Fabrication 2** (ARCH 5326) once again includes material selection, pricing, and work plan strategies into its syllabus assignments, so that the idea of fabrication has real-world constraints and delivery methods in place.

Photo: Bob Gundu

Supplemental Information 4.0

Drumming Circle at MSoA Grand Opening, 19 January 2017

4.1 Introduction to the Institution and Program History

4.1.1 History, Description and Mission of the Institution

> • *The appendix of the APR must provide a brief history and description of the institution in which the Program exists, as well as the institution's current mission statement and the date of its adoption or last revision. This may be provided as a web link.*

Laurentian University's branding slogan is AMBITIOUS. BOLD. DRIVEN.

In lieu of a Mission Statement, in its 2012-2017 Strategic Plan, Laurentian University articulated the following purpose statement:

> *Laurentian University with its federated university partners offers an outstanding university experience in English and French with a comprehensive approach to Indigenous education that prepares students as agents of change by stimulating them to ask new questions, to challenge what we know, and so empower them to create innovative solutions for future local and global issues.*

4.1.2 Brief History of Laurentian University (LU)

Laurentian University (LU) was incorporated on March 28, 1960. Laurentian is officially a bi-lingual and tri-cultural university, located on the traditional territory of the Anishinaabe peoples of Atikameksheng (Whitefish) First Nation.The city and region of Sudbury, Ontario offers unique cultural, recreational, and educational opportunities. Historically a world leader in nickel mining, Sudbury is now the major retail, economic, health and educational centre for Northeastern Ontario. The city and the campus are situated on the Canadian Shield where major industries include timber and mining. Sudbury lies in the Robinson-Huron Treaty territory. Laurentian's campus is a beautiful 765-acre site on the edge of Lake Ramsey. Students and faculty enjoy an incomparable natural environment, surrounded by five of Sudbury's 330 freshwater lakes, a mixed boreal forest and breathtaking nature trails. All this in the heart of the city, 10 minutes from the city's downtown core. The University has recently completed an over $51 million dollar campus transformation that updated its infrastructure and teaching facilities, including 25,000 sq ft. of construction devoted to classrooms, teaching labs, new student gathering spaces, a vibrant Welcome Centre and a new Indigenous Sharing and Learning Centre.

Celebrating its 60th anniversary in 2020, Laurentian University has become one of the fastest growing universities in Canada, its enrolment having gone from 6,000 to almost 10,000 in the past decade (6,510 full-time + 3,000 part-time students). Laurentian has the best post-graduation employment rate in Ontario: 95% of LU graduates find jobs within six months of graduating, and 97% are gainfully employed following completion of their studies. The University also has an impressive research track record, having secured more than $250 million in research income in the past decade. Since 2005, Laurentian has opened new schools of Medicine and Architecture, in each case a first in over 40 years. In 2015, Laurentian was one of five university collaborators in prizewinning neutrino research led by Dr. Arthur McDonald at Sudbury's SNOLAB, which received the 2015 Nobel Prize in Physics.

The McEwen School of Architecture was built in the heart of downtown Sudbury, intentionally placed there as a catalyst for urban revitalization, adding another layer of meaning to the project of the School of Architecture. This revitalization has added over 330 students, 17 faculty, and 7 staff to the downtown core. Ironically, the School's conference room looks across the road to The Grand Theatre where the Laurentian University of Sudbury/Université Laurentienne de Sudbury began before building the current campus in the 1960s. Below is a timeline showing the founding of Laurentian University in 1960 in relation to its three federated universities: University of Sudbury, Thorneloe University, and Huntington University. Select events have been chosen to highlight major milestones since 1957.

Laurentian University (LU) Timeline

1957 Founding of the University of Sudbury (originally le Collège du Sacré-Coeur, created by the Jesuit Fathers in 1913).

1960 A Provincial Act gives corporate structure to Laurentian University (LU) as a bilingual federation with representation from the Roman Catholic, United and Anglican Churches. Laurentian University was thus incorporated on March 28, 1960.

1960 First meeting of the Board of Governors, with Ralph D. Parker named Chair. Temporary space in downtown Sudbury where the university offered programs in the Faculty of Arts and Science, and the divisions of Engineering, Business Administration and Nursing. Founding of Huntington University by the United Church.

1961 Founding of Thorneloe University by the Synod of the Anglican Diocese of Algoma. Establishment of the Centre for Continuing Education, offering off-campus courses and programs with classes in various Northern Ontario communities and distance education courses.

4.1 Introduction to the Institution and Program History

In 1963 Thorneloe University joined the Laurentian University Federation. Le Collège universitaire de Hearst affiliates with the university, following affiliation with the University of Sudbury in 1957.

1964 Construction of the original LU campus is completed; other buildings are added in following years.

1965 Algoma University College in Sault Ste. Marie affiliates with Laurentian University.

1967 Founding of the schools of Nursing, Physical and Health Education, and Social Work at LU.

1969 Founding of the School of Commerce and Administration. School of Graduate Studies begins offering Master's degree programs, primarily in sciences (Biology, Chemistry, Biochemistry, Geology, Applied Physics, History, and Child and Development Studies).

1974 Founding of l'École des sciences de l'éducation. Laurentian partners with the local community, industry and government, to launch a grassroots reclamation program to reverse the effects of emissions on lakes and forests (program won a local Government Honours Award by the United Nations at the Rio de Janeiro Earth Summit in 1992).

1975 Faculty of Arts and Science restructured into Faculties of Humanities, Social Sciences and Science; Faculty of Professional Schools is created.

1980 School of Engineering and Faculty of Science join to form the Faculty of Science and Engineering. The university hosts the first Pan American Junior Track and Field Championship.

1984 Alex Baumann, a Laurentian student, wins two gold medals in swimming at the Summer Olympics in L.A. (200-metre and 400-metre individual medley) and sets world records.

1987 New master's programs are created in Business Administration, Engineering, Service social, Social Work, Humanities and Sociologie.

1990 Inauguration of the J.N. Desmarais Library building.

1992 Official opening of the Student Centre.

1993 Start of new Midwifery Education Program, offered jointly by Laurentian, McMaster and Ryerson universities. 1995 Launch of six-year China project. The university receives $3.4 million in funding from the Canadian International Development Agency (CIDA) to create a full-service distance education and off-campus operation at the South West Institute of Technology in Mianyang City, in China's Sichuan province. Aaron Marsaw, a student of Philosophy and Political Science, becomes Laurentian's first Rhodes Scholar.

1997 The University co-hosts the 28th International Physics Olympiad, attracting some 500 participants from 58 nations.

1998 Official opening of the Sudbury Neutrino Observatory (SNO), with world-renowned scientist Stephen Hawking in attendance. SNOLAB is one of the preeminent neutrino labs in the world.

1999 The University creates the position of Vice- President, Academic for Francophone Affairs, while keeping the position of Vice-President, Academic for Anglophone Affairs. Opening of the Sun Microsystems Computer Lab.

2000 The University restructures to form three faculties: Social Sciences and Humanities, Sciences and Engineering, and Professional Schools. Conclusion of the Coming of Age Campaign, which raised more than $15.9 million for student financial aid.

2001 The Province of Ontario announces support for the establishment of a medical school at Laurentian and Lakehead universities. Grand opening of the Brenda Wallace Reading Room and Computer Centre, in the J.N. Desmarais Library. First scientific results are released from SNO, explaining the missing solar neutrinos and revealing new neutrino properties.

2002 CKLU 96.7 FM, the non-profit campus-based community radio station, celebrates the opening of new facilities in the Student Centre.

2003 The first doctoral program is created at Laurentian: a Ph.D. in Mineral Deposits and Precambrian Geology. Laurentian's new English-language School of Education welcomes its first cohort to the concurrent Bachelor of Education program.

2005 The Northern Ontario School of Medicine (NOSM), a collaboration with Lakehead University in Thunder Bay, officially opens. Laurentian welcomes a charter class of 26 students to a new building, known as NOSM East Campus. Laurentian establishes a Faculty of Management to house the School of Commerce and Administration as well as the School of Sports Administration.

2006 Opening of the new West Residence, to house 220 upper-year students in air- conditioned apartments. Start of construction of new building for the School of Education (English language). Start of multi-million dollar expansion of Ben Avery Physical Education Complex.
2007 School of Architecture project initiated and community Steering Committee forms.

2012 The School of Architecture Founding Director begins on January 1, 2012. This parallels design work begun by LGA architects on the new School of Architecture facilities in downtown Sudbury.

2013 The School of Architecture opens with its first cohort of 70 students in the Bachelor of Architectural Studies (BAS) program. The opening is marked with an inaugural lecture by renowned Aboriginal architect Douglas Cardinal. A community welcome party to thank community supporters and partners takes place that same week.

2014 Through ACAPLAN, the School of Architecture moves out of the Faculty of Professional Schools and into the Faculty of Sciences and Engineering. As a result of the arrival of the School of Architecture, the Faculty is renamed the Faculty of Science, Engineering and Architecture (SEA).

2015 SNOLAB receives the Nobel Prize in Physics, awarded to SNOLAB director Arthur McDonald and Japan's Takaaki Kajita.

2016 The University Radio Station, CKLU, moves downtown into the new McEwen School of Architecture.

2016 Mining magnate, Robert McEwen, gifts 10 million dollars to the School of Architecture. The School is renamed the McEwen School of Architecture in perpetuity.

2017 Grand Opening to the public of the 44.1 million dollar McEwen School of Architecture on January 19, 2017. The inaugural BAS class graduates in June of 2017. The first Master of Architecture (M.Arch) graduate class (35 students) commences in September of 2017.

2019 Laurentian welcomes a new President, Dr. Robert Haché - formerly at York University - in July of 2019.

In addition to the LU timeline above, for a good historical page including archival photos, please see:

"Our Campus in the 1960s" at https://laurentian.ca/faculty/arts/our-campus-1960s.

And for additional LU "Historical highlights," please see https://laurentian.ca/stub-158.

4.1.3 Program History of the McEwen School of Architecture

> *• The appendix of the APR must provide a brief Program history.*

As mentioned, the School of Architecture opened its doors in September 2013. Among its significant milestones, after the approval of the BAS Undergraduate Program in October of 2016, the Graduate Program was approved in Ontario by the Quality Assurance Council (QAC). We then wrote a Mission Statement that describes the Master of Architecture Program. We have used this statement also for recruiting and to guide our Program's Strategic Plan goals outlined the following year, in 2017:

> *The Master's degree in Architecture (MArch) is unique in Canada. The Program draws heavily upon the study of northern community needs coupled with an integrated approach to building systems for northern climates. Building with wood, design for climate change and digital fabrication are three areas of study for advanced graduate work, including a final design Thesis. The Program length is two-years, with continued focus on experiential learning through design-build and community-design projects. Design Studio options include 'Architecture and Craft,' 'Indigenous Design' or 'Community Building.' Two terms are devoted to Co-operative education, placing students in design related offices locally, nationally and internationally. Specialized research is presented through research seminars while professional practice is emphasized through Co-operative education and an advanced course in architectural practice. Courses on fabrication further expose students to the relationship between architecture and industry through making. A design Thesis forms the spine of the second year. Design courses (including Thesis) and Co-operative placements are offered in both French and English.*
>
> *The Program strives to become recognized nationally for Indigenous Design at the graduate level. Indigenous worldviews and knowledge are present throughout the Program, delivered in particular courses and through various community settings. The knowledge and skills gained in the professional program prepare students to enter into the profession of architecture. Graduates can expect to find employment as intern architects or enter into a variety of related design fields including urban design, community planning, sustainable design, environmental design, or digital fabrication. (October 2016 - Ministry of Education)*

4.1 Introduction to the Institution and Program History

After this Graduate Program approval, the MSoA was then able to begin the process of the "Plan for Initial Accreditation" to the CACB. Please see Appendix B for the Laurentian University letter from VP Academic Pierre Zundel that began our official CACB application.

Historical Timeline of the McEwen School Of Architecture

(Adapted from the book *Building a Northern Design Culture: The creation of the McEwen School of Architecture/ pour une culture propre au nord: la création de l'Ecole d'architecture McEwen*, 2017)

The renaming of the School from *Laurentian Architecture Laurentienne* (LAL) to the *McEwen School of Architecture* occurred in 2016. As a result, all of our earlier references to LAL have been rebranded accordingly. In fact, the School project was first titled the Northern Ontario School of Architecture (NOSOA) by the steering committee, followed by *Laurentian Architecture Laurentienne* (LAL) once it was endorsed by the University, and finally *McEwen School of Architecture,* voted on by the LU Board of Governors. References to all three names may be found in early literature and promotion materials, including on-line documentation.

2005

Fall. Dr. David Robinson suggests the concept of developing design capacity through a school of industrial design focused on wood products as a solution to the declining economy (in particular the forest industry) in Northern Ontario.

2006

Spring. The idea for a school of industrial design morphs into a school of architecture through the influence of Kirsten Robinson (David's daughter).

Fall. Kirsten Robinson introduces David Robinson to Rick Haldenby, Director of the Waterloo School of Architecture. Robinson invites Haldenby to Sudbury to speak at City Council.

2007

Jan.-March. David Robinson prepares a draft economic impact analysis of a school of architecture and community presentations on the idea.

Jan. 29. First public announcement of the Northern Ontario School of Architecture (NOSOA) project.

Feb. 2-3. Rick Haldenby speaks at three venues in Sudbury (Chamber of Commerce, Art Gallery, and Board of Governors Lounge at Laurentian). Haldenby and Robinson meet with Laurentian University President Judith Woodsworth, whose priorities at the time do not include a new school of architecture.

The Northeast Superior Mayors Group (NESMG) announces its support for the establishment of a Northern Ontario School of Architecture (NOSOA).

February. Dr. Derek Wilkinson, Director of the Institute for Northern Ontario Research and Development (INORD), forms a community steering committee. First meeting of the steering committee–Tim James, Jeff Laberge, Maureen Lacroix, Blaine Nicholls, David Robinson, and Derek Wilkinson. Rick Haldenby provides critical support for the idea.

Spring. Due to the lack of interest from Laurentian University, there is considerable discussion about the option of NOSOA being a satellite for the Waterloo School of Architecture.

May. Committee tours the University of Waterloo School of Architecture in Cambridge.

June. First report to the University Senate. Janet Gasparini joins the steering committee.

October. Members of the NOSOA steering committee discuss the project at the Association of Collegiate Schools of Architecture (ACSA) Conference in Waterloo.

Helen Mulc and J.M. Chénier join the steering committee as representatives of the Greater Sudbury Development Corporation (GSDC) and the City respectively.

The steering committee begins to bring Aime Dimatteo of the Northern Ontario Heritage Fund Corporation (NOHFC) and Louise Paquette and Terry Fortin of FedNor up to speed on the project.

November. Greater Sudbury Development Corporation gives a $40,000 grant for a

feasibility study. Robert Bourgeois joins steering committee as observer on behalf of Laurentian University.

2008

January. Waterloo Architecture graduate Kate Bowman is hired as NOSOA Project Manager. In anticipation of first presentation to Greater Sudbury City Council, Laurentian President Judith Woodsworth confirms that the School should be presented as part of Laurentian University.

First major presentation of the project to City of Greater Sudbury City Council (including the Mayor).

Jan.-March. The steering committee's presentations to Downtown Sudbury and the Downtown Village Development Corporation (DVDC) garner the support of downtown businesses.

March. The steering committee begins the search for start-up and permanent space for the School.

FedNor and NOHFC each give $40,000 for Phase 2 of a feasibility study.

The NOSOA steering committee makes a community presentation in an open meeting of City Council.

May. Canadian Council of University Schools of Architecture (CCUSA) motion is passed, indicating general support for a new school of architecture.

June. First curriculum development workshop is organized, with attendance by faculty from other schools of architecture. Feasibility study for sites in Sudbury is completed by Diamond Schmitt Architects.

September. The City of Greater Sudbury pledges $10 million in capital investment toward School of Architecture project, with the condition that it will be in the downtown core. First class and all of the buildings to be ready for the fall of 2011.

Sep.-Dec. The NOSOA steering committee builds support for the School with Ontario Forestry Industry Association, University of Waterloo School of Architecture, and the CCUSA, as well as with significant community and government groups and individuals, including Rick Bartolucci (MPP), Sudbury Rotary Club, Laurentian's Faculty of Professional Schools, and the Native Education Council (LUNEC). Blaine Nicholls attends CCUSA meeting in Montréal.

Curriculum development, required for the approval processes at Laurentian University (with their Board and Senate), the Ministry of Training and Colleges and Universities (MTCU), begins in earnest under the leadership of Kenneth Hayes.

December. Downtown Sudbury BIA pledges $50,000 toward School project.

2009

Jan.-March. Preliminary curriculum is completed for the undergraduate and graduate programs.

Independent market analysis supports the steering committee's economic analysis.

February. Steering committee gains support at Downtown Sudbury AGM. Local entrepreneurs of Downtown Sudbury commit $50,000 for capital development.

March. Program approval process begins at Laurentian. Initial curriculum completed by project consultant.

Dominic Giroux arrives as the new president of Laurentian University. In an introductory meeting with Sudbury MPP Rick Bartolucci, Giroux confirms his support for the project and takes a leadership role.

April. International ideas competition launched with a $5,000 donation from Wood Works!

The Federation of Northern Ontario Municipalities (FoNOM) passes motions of support for the NOSOA at their AGM.

May. The school hosts a two-week Architecture Show & Tell, featuring design work by

Northern architects and by students and faculty from the University of Waterloo School of Architecture in the Silverman building.

June. Rick Bartolucci, MPP announces that NOHFC will provide a $701,000 grant for the hiring of a Founding Director, preliminary marketing for the new school, and the engagement of a design team for the school's temporary and permanent facilities.

LU Senate and Board of Governors approve School of Architecture program in principle.

July. The school's name changes from the Northern Ontario School of Architecture (NOSoA) to the Laurentian University School of Architecture or Laurentian Architecture Laurentienne (LAL).

Members of the steering committee and Laurentian administration undertake to prepare the business plan that will be submitted to the University Executive and eventually the Ministry of Training Colleges and Universities (MTCU) for funding approval.

September. Business plan completed.

October. "International Ideas Competition" attracts entries from around the world. Jury members are Dominic Giroux, the new President of Laurentian University; Anne Cormier, Director of the Université de Montréal School of Architecture; Craig Dykers, lead architect at the Norwegian firm Snøhetta; and renown Canadian architect Douglas Cardinal. The winning entry is from Rome, Italy, with runners-up from the United States and Canada.

Douglas Cardinal gives a free public lecture in the Sudbury Theatre Centre.

The steering committee becomes an active partner in Sudbury's Greater Downtown Master Planning process.

Search for a downtown storefront office space begins.

November. School of Architecture Business Plan submitted to Laurentian University. Laurentian University seeks approval of Province.

2010

January. The School is designated a top Laurentian fundraising priority. In anticipation of program approval, the School immediately begins informing potential students, faculty, and staff about the new program.

February. The project wins Economic Developers Council of Ontario (EDCO) Economic Impact Award based on feasibility study.

Designer Bruce Mau and Minister Rick Bartolucci co-host an event in Toronto that brings together alumni, politicians, academics, and media to learn more about Laurentian Architecture Laurentienne (LAL).

Presentation to Wood Works! Provincial Steering Committee emphasizing the School's focus on wood.

May. A community charrette is attended by over fifty interested people. Laurentian receives bids from design teams to renovate a building downtown that will temporarily house the school. Diamond Schmitt Architects is retained and site selection begins.

June Founding Director position is posted.

2011

January. Downtown project office for School of Architecture opens on the ground level of St. Andrew's Place, 111 Larch Street. RFSQ (Request for supplier qualifications) for architectural firms to design the facilities of the School is tendered.

First video or "webisode" by Insight Media Works about the School is launched.

April. Funding confirmed, preferred site confirmed, project implementation begins.

May. Ontario Provincial Government commits $21 million to the new Laurentian School of Architecture, through the Ontario Ministry of Training, Colleges and Universities (MTCU).

June. Downtown stakeholder consultation session held to discuss the permanent location.

Northern Ontario Heritage Fund Corporation (NOHFC) gives $5 million in support of the new Laurentian School of Architecture. Total raised towards the new School now exceeds $36 million.

First round of interviews for the Founding Director of LAL are held.

July. Steering committee recommends "Market Square" site at the corner of Elm and Elgin in the City of Greater Sudbury.

September. Levitt Goodman Architects (LGA) is selected as design architects for the School of Architecture, being chosen over Moriyama Teshima and Diamond Schmitt Architects.

Second round interviews for the Founding Director position.

November. The Market Square site in the core of downtown Sudbury is acquired by Laurentian University from the City of Greater Sudbury for $3 million.

2012

January. Laurentian University President and Vice-Chancellor Dominic Giroux announces the appointment of the Founding Director of the Laurentian School of Architecture, Dr. Terrance Galvin. This parallels design work begun by LGA architects on the new School of Architecture facilities in downtown Sudbury.

Jan.-March. Community consultation continues with local sustainability experts, the francophone and First Nations/Métis/ Inuit communities, and the community at large.

July. Faculty search begins.

August. Centre for Research and Innovation in the Bio-Economy (CRIBE) announcement for cross-laminated timber (CLT) wing design research. This leads to one of the new School of Architecture buildings being designed in CLT.

September. The Federal Government (through FedNor) gives $5 million towards the Laurentian School of Architecture. The new School is now considered fully funded, having raised over $41 million.

November. Sunrise Ceremony performed by Anishnaabe Elders on the site of the new building before ground breaking, to welcome the School onto Atikameksheng Anishnawbek traditional territory.

2013

April. The first faculty appointments of the new Laurentian University School of Architecture are announced, with the hiring of six professors.

August. Renovations on the former Market building and Telegraph building are completed.

September. **Ontario Premier Kathleen Wynne cuts the ceremonial ribbon to officially launch the Laurentian University School of Architecture, the first new school of architecture in Canada in 45 years.**

The School of Architecture opens with its first cohort of 70 students in the Bachelor of Architectural Studies (BAS) program.

2014

February. Laurentian University Board of Governors approves contract for construction of Phase 2 for the School of Architecture, to include the CLT building and a new steel and glass building along Elm Street.
First twelve ice fishing huts are constructed by the inaugural class and auctioned to the community at Science North.

November. First Birch Bark Canoe is constructed in partnership with Wahnapitae First Nation.

2015

February. Five ice fishing huts constructed by Laurentian University School of

	Architecture students are auctioned off, raising $11,000 for the School.
March.	Students win CANstruction People's Choice Award for "Parallax: a is for architecture" project.
June.	School of Architecture receives Partnership Award from Science North for design collaboration on Dynamic Earth pavilion.

2016

February.	Warming huts project constructed on Lake Ramsey.
April.	Construction begins on three School of Architecture traditional Finnish saunas. IQAP External Review is conducted at Laurentian with Dr. Myriam Blais (Laval) and Dr. Kendra Schank Smith (Ryerson) during April 17-19, 2016. Final IQAP External Report submitted 04 May 2016.
May.	Students and faculty of the School win First Prize in Bergen International Wood Festival, held in Bergen Norway.
June.	Mining magnate Robert McEwen and his wife Cheryl gift $10 million to the School of Architecture. The School is renamed the McEwen School of Architecture (MSoA) in perpetuity.
September.	The Laurentian University radio station CKLU, moves into the McEwen School of Architecture.
October.	Curriculum approval for new Master of Architecture (MArch) program is granted on 14 October 2016 by Ontario's Quality Assurance Council (QAC) through IQAP process.
November.	McEwen Architecture students are awarded the Public Opinion Prize at the 21st Annual CCA (Canadian Centre for Architecture) Interuniversity Charrette in Montréal. This marks seven different awards and prizes to date.

2017

January.	Grand Opening of the McEwen School of Architecture on January 19, 2017. Dignitaries from all levels of government attend the event, which is also open to the public. Students host a Nuit Blanche, showcasing a dozen winter installations as part of the opening to the wider community. Funding approval for Master of Architecture (MArch) program is received from the Government of Ontario, through the Premier's Office.
March.	Dr. Pierre Zundel, VP Academic and Provost, submits letter to CACB on 10 March 2017 to begin the application process for "Plan to Achieve Initial Accreditation" along with APR submitted by Dr. Terrance Galvin of the MSoA.
May.	The inaugural Bachelor of Architectural Studies (BAS) class graduates with a class of 48.
June.	The McEwen School of Architecture is successful in receiving "Eligibility Status" from the *Canadian Architectural Certification Board CACB/CCCA,* the important first step in the 3-step process to receive "Initial Accreditation" status as a professional degree Program in Architecture.
September.	The first Master of Architecture (MArch) class begins with anticipated graduation in the spring of 2019.

2018

January.	Dr. David Fortin is appointed the second Director of the McEwen School of Architecture. He is the first Métis architect to lead a Canadian School of Architecture.
March.	The CACB conducts Candidacy Status site visit at Laurentian from March 10-13, 2018, chaired by Marc Boutin (Calgary) with Mourad Mohand-Said and Brian Gregorsen.

May. The McEwen School of Architecture is well represented in Canada's official entry to the Venice Biennale - UNCEDED: Vocies of the Land, presented by Douglas Cardinal. Director David Fortin co-curates the exhibit with Gerald McMaster. Team members include Patrick Stewart, Jake Chakasim, and Eladia Smoke. Students Bohdana Innes and Krystel Clarke serve as Cultural Hosts at the exhibit in Venice.

June. The McEwen School of Architecture is successful in receiving "Candidacy Status" from the *Canadian Architectural Certification Board CACB/CCCA.* This is the second step in the 3-step process to receive "Initial Accreditation" status.

November. The first meeting of the 16-member "McEwen International Advisory Board" to the McEwen School of Architecture. Board members include Rob McEwen, Bruce Mau, Jason McLennan, Marianne McKenna, Lisa Rochon, Rick Hansen, and Alfred Waugh, alongside local figures and elders.

2019

June. First Master of Architecture (MArch) class graduates from the McEwen School of Architecture with a class of 33 (from the initial 68). A vast majority of the class is employed upon graduation.

September. With the hire of professor Bruce Wrightsman, the MSoA now has 17 professors in total along with 7 staff positions. The School continues to grow, with over 330 registered in both undergraduate and graduate Programs for the fall of 2019.

2020

February. The School launches the "Sudbury2050.ca Urban Design Ideas Competition" with over 500 registrants from over 50 countries. The competition is to be judged and winners announced in the fall of 2020.

September. The MSoA submits its third Architecture Program Report (APR) to the *Canadian Architectural Certification Board CACB/CCCA* for "Initial Accreditation" status. Results will be announced in June 2021.

McEwen School of Architecture Studio Environment

Student Progress Evaluation 4.2

4.2 Student Progress Evaluation

4.2 Student Progress Evaluation

4.2.1 Student Transfer Credit and Advanced Placement

> *The appendix of the APR must include:*
> *• the procedures for evaluating student transfer credit and advanced placement;*

Laurentian University Transfer Credits

Prerequisites for Admission:

Canadian High-School Graduates – Within Ontario
To study at Laurentian University, Ontario secondary school applicants must ensure they will have completed at least six Grade 12 level 4 U/M courses by the end of June and will qualify to obtain an Ontario Secondary School Diploma (OSSD).

Advanced Placement (AP) – Applicants who have completed Advanced Placement courses in appropriate subjects with a grade of four (4) or more may receive transfer credits equivalent to a maximum of two full-year courses (12 credits). Applicants must also meet the regular University admission requirements since AP courses are not accepted in lieu of these.

International Baccalaureate (IB) – The International Baccalaureate is recognized at Laurentian University. Applicants must have achieved a minimum score of 24 and have fulfilled the diploma requirements with six subjects: three at higher level and three at subsidiary level. Transfer credits may be granted for higher-level courses with grades of five (5) or better and an overall minimum score of 28. Applicants must submit their IB transcripts to the Office of Admissions for evaluation. In section 3.4 Student Composition, Well-Being, and Enrichment, students who have completed courses in the International Baccalaureate (IB) are considered “mature” students in that document with respect to the description of the students’ backgrounds; in other words, they have had more than a high school education before entering the BAS program.

Canadian High-School Graduates – Outside Ontario
Canadian secondary school Grade 12 certificates from most other provinces are accepted as equivalent to the Ontario Secondary School Diploma (OSSD). Students who have attended a Québec CEGEP must present transcripts for one full year of academic studies. Courses completed beyond first year may be eligible for transfer credits.

Language Requirements for All Applicants

If you wish to study in an English language program (which is technically how both the BAS and MArch programs are classified), and your first language is not English, you must meet one of the language requirements listed below in addition to the academic requirements:
• Three years of full-time senior-level studies in an English-language secondary school or postsecondary institution (official documents required), (evaluated on an individual basis; at the Admissions Committee’s discretion)
• Test of English as a Foreign Language (TOEFL), (minimum score: 230 computer-based, 88 Internet-based)
• International English Language Testing System (IELTS - Academic), (6.5 minimum overall for direct academic entry with no band score lower than 6)
• Canadian Academic English Language (CAEL) Assessment Test (minimum score 70, with 60 in writing proficiency)
• Cambridge English Proficiency (minimum result: C)
• Pearson Test of Academic English (PTE), (minimum score: 60)
• Laurentian English for Academic Preparation (EAP) Level 3 with a score of 70% or higher
• Laurentian University Preparation (UP) with a score of 65% or higher

Transfer Pathways for College Graduates (split into “Arts” and “Other programs” graduates)

See Laurentian University 2020 Viewbook, page 40: *https://laurentian.ca/assets/files/Viewbook/2020_EN.pdf*

McEwen School of Architecture Transfer Credit Policy

Transfer credit is the term used by Laurentian University (LU) for credit granted to a student for courses undertaken at another post-secondary institution (e.g. university or college). Internal LU students applying to switch to the Bachelor of Architectural Studies (BAS) Program at the McEwen School of Architecture (MSoA) may have accumulated previously-earned credits that will automatically be counted toward the BAS program elective requirements.
The BAS program is 120 credits, including twenty-four (24) elective credits which are to be completed during the first three (3) years of the program. The transfer credits awarded to incoming mature students, and the previously-earned credits acquired by LU students transferring into the BAS Program, may be used toward the completion of the BAS Program’s elective requirements only.
These 24 elective credits need to be acquired by taking courses that are non-architecture related (i.e. courses that do not begin with the ARCH code or are about architectural design and/or other architectural or architecture-related subjects). This is due to the MSoA’s interpretation of previous accreditation requirements

specifying that "no more than 60 percent of the student's required post-secondary education can be devoted to professional studies" (CACB Procedures 3.11). The MSoA's 24 elective credit requirements are equal to 20 percent of the BAS program's total credit requirement of 120 credits. This Policy also encourages students to consider completing a Minor in other areas. A Minor at LU requires twenty-four (24) credits. Additionally, students who enter the BAS Program having been awarded 24 transfer credits from another institution (thus fulfilling the 24 elective credit requirements before beginning the program) are encouraged to consider taking electives at LU with the aim of continuing to broaden their education in general studies.

Because each architecture program in Canada is very different, we are unable to award transfer credits toward core architecture courses (though advanced standing in the Program may be possible). Transfer credits and/or the possibility of advanced standing in the BAS Program are therefore both assessed on a case-by-case basis by the MSoA Director, MSoA faculty members, and the LU Admissions Office. Incoming students, even those with architecture backgrounds, should expect to do a full four-years of study in the BAS program due in particular to the schedule of Design Studio courses, unless they have been granted advanced standing. All students should note that our Program is only offered full-time.

NOTES:

- To be considered a full-time student at Laurentian University as well as by the Ontario Student Assistance Program (OSAP), a student must be taking no less than eighteen (18) credits during one academic year (September to May), or nine (9) credits during each academic term (e.g. September to December)
- A student must be taking at least twelve (12) credits per academic term to be considered a full-time student according to Québec's Student Financial Assistance/Aide financière aux études (Québec version of OSAP).

McEwen School of Architecture Qualifying Year

In 2019 the MSoA School Council voted to approve formalizing a Qualifying Year which would allow students from non-accredited design programs a path into our graduate program. This was approved by the Council of English Language Programs (CELP) in January of 2020. The description of the approved MSoA Qualifying Year admissions process is as follows:

> Applicants who have a 4-year degree in architecture (or a closely related field such as Environmental Design) from a non-pre-professional program (i.e. curriculum is not reviewed by the Canadian Architectural Certification Board (CACB) or foreign equivalent), can apply for acceptance into an Architecture Qualifying Year, including comprehensive design studio and other suggested courses. The Architecture Qualifying Year is designed to allow applicants to obtain the professional MArch degree over 3 years, while ensuring that accreditation requirements are met. Acceptance into the graduate program is contingent on the student maintaining good academic standing.
>
> Similarly, in some cases, international students with limited or no experience in cold climate construction and building envelope design, and/or who have not demonstrated sufficient comprehensive design experience, and/or who are not deemed to have the requisite digital proficiencies to succeed in the MArch program, will also be recommended to the Architecture Qualifying Year.
>
> In some cases, depending on the quality of the portfolio and academic transcript, students may instead receive advanced standing into the third year of the BAS program. If so, and upon successful completion of 60 undergraduate credits at the University, the student will receive a Bachelor of Architectural Studies (BAS) degree and would be eligible to then apply to the MArch program.
>
> Students who maintain Good Academic Standing during the Qualifying Year will need to provide a "Letter of Intent to Continue into the MArch Program" to the Graduate Coordinator prior to the February 1st application deadline, but will not need to reapply.
>
> In order to apply for acceptance into the Architecture Qualifying Year, applicants may follow the instructions above - See "B) For those applying to the MArch program from outside of the BAS program (including those applying for the Architecture Qualifying Year)". In the letter of intent, applicants should clearly state that they are applying for the Architecture Qualifying Year.

4.2.2 Student Progress

> *The appendix of the APR must include:*
> *• the procedures for evaluating student progress, including the institutional and Program policies and standards for evaluation, advancement, graduation, appeal, and remedial measures.*

Academic Standards For Existing BAS Students

The following is Laurentian University's GPA scale (0-10). This became effective September 2014:

BAS Grading Scheme

Percentile Numerical	Letter Grade	Value	Definition
90% - 100%	A+	10	Exceptional
85% - 89%	A	9	Outstanding
80% - 84%	A-	8	Excellent
75% - 79%	B+	7	Very Good
70% - 74%	B	6	Good
65% - 69%	C+	5	Satisfactory
60% - 64%	C	4	Adequate
55% - 59%	D+	3	Passable
50% - 54%	D	2	Marginal
40% - 49%	E	1	Failure
0% - 39%	F	0	Failure

The *MSoA BAS Academic Policy* stipulates that BAS students must earn a minimum of 60% in Design Studio courses in order to successfully complete same. Students must earn a minimum of 50% in other architecture lecture courses, as well as their elective courses (unless otherwise specified by the department through which they are taking an elective course) in order to successfully complete these courses. Please refer to the *MSoA BAS Academic Policy* (see Appendix J), which also includes additional details such as how many times a student can repeat an architecture course before being asked to withdraw from the program. If students wish to pursue the MSoA's MArch degree following completion of the BAS program, they must maintain an average of at least 70% in order to be eligible for acceptance to the MArch program.

Academic Standards For Existing MArch Students

Grading will be carried out with respect to the Laurentian University graduate grading scheme:

MArch Grading Scheme

Percentile Numerical	Letter Grade	Value	Definition
90% - 100%	A+	10	Exceptional
85% - 89%	A	9	Outstanding
80% - 84%	A-	8	Excellent
75% - 79%	B+	7	Very Good
70% - 74%	B	6	Good
65% - 69%	C+	5	Satisfactory
60% - 64%	C	4	Adequate
55% - 59%	D+	3	**Failure - must repeat**
50% - 54%	D	2	**Failure - must repeat**
40% - 49%	E	1	**Failure - must repeat**
0% - 39%	F	0	**Failure - must repeat**

For the successful completion of a program, a GPA of 5.5 (70%) must be maintained over all courses. **Students must not have any grade lower than "C"** in any course. Students are permitted to repeat one failed course to improve their mark.

Grade Appeal

Laurentian University has a Grade Appeal Policy that is communicated to all students. The Policy is available online through the university webpage at *https://laurentian.ca/policies-accountability/policies* and is referenced in all syllabi. "The Grade Appeal Policy, together with its associated Procedures, governs the process followed at Laurentian University to ensure the fair and consistent management of grade appeals initiated by students." Students must first discuss the grade in question with their course instructor to attemt a resolution. If this fails, they may contact the Director to meet with both the student and the instructor to discuss. If this does not resolve the matter, the stduent may file an appeal. A committee is struck from the Fauclty of Science, Engineering and Architecture. Procedures are outlined in the Policy.

4.2 Student Progress Evaluation

Current Course Descriptions 4.3

4.3 Current Course Descriptions

> *The appendix of the APR must include a one- or two-page description with an overview, learning objectives, course requirements, prerequisites, date(s) offered, and faculty for each required and elective course in the Program.*

Professional Program (BAS and MArch) Courses

When the MSoA curriculum was developed, it went through several approval processes internal to LU in both English and French. Each course was required to have a *Calendar Description, Learning Objectives, Learning Outcomes*, and *Methods of Evaluation*. The Graduate Program was reviewed and voted upon all the way up to the Senate at LU, and was subsequently approved externally through the Quality Assurance Council (QAC) at the Ministry of Education in Ontario. They also require metrics regarding *Learning Objectives* and *Outcomes*.

We have included the official *Calendar Descriptions* (in italics) for all courses in the Professional Program, with corresponding 'revisions' to original descriptions indicated where changes of course content have occurred. Note that on 17 November 2017, Laurentian University dropped the requirement for Learning Objectives in all courses: "*We voted at our meeting yesterday to do away with the section on Learning Objectives in the CELP syllabus submission. Learning Outcomes are, however, still required*." (Reported by Dr. Hélène Joly, Associate Dean, Faculty of Science, Engineering and Architecture).

As a result, we have included *Learning Objectives* in course descriptions when possible and *Learning Objectives/Outcomes* where professors have listed *Learning Outcomes* in relation to their course descriptions. As *Learning Outcomes* are evidence-based, they may relate more closely to Student Performance Criteria in any event.

ARCH 0100 EL/FL - Co-operative Term 1A

BAS - Year 1
Format: Co-operative Term 1A & 1B
Prerequisites - none

Instructor(s):
2019 - R. Kober
2018 - R. Kober
2017 - R. Kober

Calendar Description:

This course introduces students to work placements in various industries in and around Northern Ontario, and further afield if necessary. This first placement is intended to expose architecture students to industry internships, from mining to fabrication to friendship centers. The goal is to develop skills in the workplace as part of the professional practice co-op model. The paid placement is for a period of 14 weeks, with an employer/ student report to be submitted at the end of the term. Internship preparation, interviews and placement are guided by the Co-op Coordinator, but employment is ultimately the responsibility of each student. French speaking students are placed within French office environments wherever possible. Students are required to complete Co-operative Term 1A or 1B before being eligible to register for third year ARCH 3505 Studio.

Learning Objectives/Outcomes:

- Both technical and general knowledge;
- How to integrate classroom theory with practical work experience;
- How to optimize learning through a link between co-op and academics, allowing each student to apply her/his knowledge in a practical setting;
- About an industry or field to which they were not previously exposed.

Methods of Evaluation:

Written Employer Evaluation & Co-op Contract	25%
Co-op Student Report:	50%
(Report - 30%, Co-op Student Report Cover - 10%, Co-op Student Report Presentation - 10%)	
Participation/Attendance to co-op meetings, Cover letter & Résumé	25%

Student Performance Criteria:

E1. The Architectural Profession

4.3 Current Course Descriptions

ARCH 1505 EL/FL – Design Studio 1: Place

BAS: Year 1
Format: Studio - 10.5 hours
Prerequisites: none

Instructors:
2019 - I. Amaral, T. Strickland, B. Wrightsman, J. Harvey, K. Alladin
2018 - I. Amaral, T. Strickland, J. Harvey, K. Alladin, J. Surkan
2017 - I. Amaral, M. Baechler, R. Kober, T. Strickland

Calendar Description:

The study of architectural design is introduced through a series of short studies regarding PLACE that provide opportunities to develop basic design skills, including free-hand drawing, site analysis, and modelling. The theme of place is explored at a variety of scales, beginning with the geology of Sudbury, its foundation as a rail town, and its mining history as sources for design exercises. Emphasis is on the recording and analysis of existing places to establish a base understanding of our location in Sudbury and the region. Exercises may include studying the light, situating buildings on the rock, and thinking in section. One section of the studio is instructed in French.

Learning Objectives:

By the end of the first term of study in the design studio, the following Objectives will be met:

- Will conduct architectural research on a large scale;
- Knowledge of the historical forces that shaped Sudbury;
- Will produce architectural graphics and presentations;
- Will develop a variety of drawing skills;
- Will apply spatial thinking to design problems.
- Will be exposed to hands-on learning at full-scale through design

Methods of Evaluation:

Assignment 1: Sketching the Landscape	5%
Assignment 2: Orthograhic Drawings	20%
Assignment 3: Log Cabin (modelling)	15%
Assignment 4: Log Cabin (Drawing)	15%
Assignment 5: Air, Ice & Water: Ice Stations	35%
Sketchbook, participation, performance	10%

Student Performance Criteria:

A2. Design Skills
A3. Design Tools
A5. Site Context and Design
A7. Detail Design
C2. Materials
E5. Project Management

ARCH 1006 EL – Design Thinking

BAS - Year 1
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - T. Galvin / K. Beites
2018 - M. Baechler
2017 - M. Baechler

Calendar Description (revised):

What does the act of design mean? This course introduces the concepts of design thinking in various fields, through a series of lecturers and design assignments. We will focus on how design influences culture, from art to graphic design, furniture design to architectural design. The course studies the work of select architects, to see how they each approach the act of design, especially studying conceptual thinking and architectural drawings. Discussion focuses upon design as a central activity of the architect and designer. Exercises include the study of designed objects, as well as 2D and 3D composition, to develop critical thinking skills parallel to graphic skills.

Learning Objectives:

- Students will develop critical thinking skills as they are exposed to design writings;
- Students will be able to apply design principles through analysis of designed objects;
- Students will learn methods of sketching and composition, which will develop their 2D and 3D graphic skills;
- Students will begin to diagram their design ideas within the language of architecture

Methods of Evaluation:

Assignment 1	10%
Assignment 2	10%
Assignment 3	25%
Assignment 4	20%
Assignment 5	10%
Sketchbook (ongoing)	25%

Student Performance Criteria:

A3. Design Tools
E3. Modes of Practice (added to F2020 syllabus)

4.3 Current Course Descriptions

ARCH 1515 EL/FL – Design Studio 2: Place II

BAS - Year 2
Format: Studio - 10.5 hours
Prerequisites - ARCH 1505

Instructor(s):
2019 - I. Amaral, T. Strickland, B. Wrightsman, J. Harvey, K. Alladin
2018 - I. Amaral, M. Baechler, R. Kober, T Strickland
2017 - I. Amaral, M. Baechler, R. Kober, T. Strickland

Calendar Description:

Building upon the previous studio, the study of PLACE continues to provide a focus for studies in the region of Greater Sudbury. Design skills, including measured drawing, comparative scales of different types of sites, and site modelling in detail are emphasized. The theme of place continues to be recorded and understood at a variety of scales, including the geology of Sudbury and the great lakes forest. Emphasis is on developing a complex understanding of the place we are in through case studies and design exercises that introduce the concept of place making within Sudbury and environs. As a winter exercise, students design and build an ice station to be hauled out upon Lake Ramsey. One section of the studio is instructed in French.

Learning Objectives/Outcomes:

- Draw to scale and understand various modes of graphic representation;
- Describe and interpret existing buildings;
- Develop research skills through analysis and synthesis;
- Develop the power of observation through architectural drawing;
- Experiment and construct models through hands-on learning;
- Problem solve at a rudimentary level through the act of design;
- Respect the diverse approaches that other students bring to design;
- Build self-confidence in combining theory and practice

Methods of Evaluation:

Assignment 1: Ice Stations Construction	30%
Drawing Project	5%
Assignment 2: Building Design	15%
Design Project	40%
Sketchbook & Participation	10%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
A5. Site Context and Design
A7. Detail Design
C3. Structural Systems

ARCH 1007 EL – Sacred Places

BAS - Year 1
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - T. Gaber
2018 - T. Gaber
2017 - T. Gaber

Calendar Description:

This is the first architectural history course in a sequence of courses on different cultural histories. The survey course introduces several examples of places – both buildings and public places – that were designed with sacred geography in mind. Through lectures and case studies, the course examines various cosmology myths and symbolic buildings in order to situate architecture within a holistic and sacred context. Nature and natural phenomenon to be studied include the elements, landforms, and symbolic narratives from several cultural traditions in Canada and abroad.

Learning Objectives:

By the end of this introduction to the history of architecture, students should be able to:

- identify different architectural traditions;
- have a broad knowledge of issues that shape buildings;
- describe how the geography of a place and a people come together;
- classify architecture according to different conceptual approaches;
- begin to spatially interpret buildings and sacred monuments

Methods of Evaluation:

Assignment 1: Model-Drawing	25%
Assignment 2: Research (abstract)	5%
Research paper	20%
Assignment 3: Artifact Report	5%
Tests: (4 x 5%)	20%
Final Exam:	25%

Student Performance Criteria:

B2. Architectural History
B4. Cultural Diversity and Global Perspectives

ARCH 2505 EL/FL – Design Studio 3: Landscape

BAS - Year 2
Format: Studio - 10.5 hours
Prerequisites - ARCH 1515

Instructor(s):
2019 - T. Gaber, S. Bassett, K. Kovalcik, E. Lam, A. Mansure
2018 - R. Kober, K. Mah, E. Smoke, O. Hénault
2017 - K. Mah, E. Smoke, J. Harvey, K. Bowman, D. Castellan

Calendar Description (revised):

The theme of the second-year design studio is LANDSCAPE. Approached within a broad context, issues surrounding the natural landscape, manufactured landscape, cultural landscapes, and the regenerative landscape of the Sudbury basin are introduced. The landscape of the Canadian Shield is investigated, as are representations of the shield. The initiative of the Nickel District Conservation Authority (NDCA) forms a basis for study. Projects such as Sudbury's Healing the Landscape outlining the replanting initiative within Greater Sudbury during the past decades will form a basis for studio projects, from investigating wetlands to horticulture to bicycle paths. Building on an annual studio group project of the building of a Wiigwam (or other types), we will be cladding a Wiigwam.

Learning Objectives:

- The student should learn about the broad issues in landscape conservation and design that affect the built environment;
- The student should learn how to apply knowledge regarding landscape issues to design issues in the Greater Sudbury region;
- The student should learn how local organizations have contributed to the betterment of the landscape in the Greater Sudbury area;
- The student should acquire hands-on knowledge about landscape and building.

Methods of Evaluation:

Assignment 1: Building with the landscape	15%
Assignment 2: Building with the landscape	20%
Assignment 3: Sauna	20%
Penultimate:	20%
Final Design & Presentation:	15%
Sketchbook & Participation	10%

Student Performance Criteria:

A2. Design Skills
A3. Design Tools
A5. Site Context and Design
B5. Ecological Systems
C5. Environmental Systems

ARCH 2306 EL – Design for Climate Change

BAS - Year 2
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - J.P. Saucier
2018 - J.P. Saucier
2017 - D. Fortin

Calendar Description:

Climate has changed over the entire planet, especially since the 1970s and especially in the Canadian North. Following John Houghton's Global Warming: the Complete Briefing, projections for further change to at least the 2050s in the North are more severe and far-reaching in their ecological and human impacts than has already occurred. This course will review the science and consider the implications for responsible practice and due diligence in: 1) reducing the emission of greenhouse gases, and 2) adapting to the impacts of change in building systems and infrastructure at all scales in northern environments. The importance of recognizing and protecting the role of ecosystem services in communities will be examined in the context of changing climate in all of its aspects: changing normal conditions, variability, seasonal, and extremes. Case studies will include the School of Architecture itself. Special northern challenges, such as designing buildings on melting permafrost and the need to consider transportation issues in selecting building materials, will be given particular attention in relation to architecture and settlement patterns.

Learning Objectives/Outcomes:

- Know how to discuss climate change in general;
- Apply the hard science of climate change to the building industry;
- Begin to discern how the built environment needs to respond to climate change.

Methods of Evaluation:

Quizzes	20%
Assignment 1: Passive Strategies research essay	20%
Assignment 2: Passive Design Integration	35%
Final Exam	25%

Student Performance Criteria:

A5. Site Context and Design
B5. Ecological Systems
C2. Materials
C4. Envelope Systems
C5. Environmental Systems

4.3 Current Course Descriptions

ARCH 4526 EL – Architectural Communications

BAS - Year 2
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - K. Alladin, A. Mansure
2018 - K. Alladin
2017 - C. Elliott

Calendar Description (revised - approved for ARCH 2526 for F2021):

This course instructs students on how to compose and edit individual architectural representations. Presentations and workshops by the course instructor assist students in developing and critically editing their design work. The course delivers technical knowledge on the appropriate use of software and developing techniques that best express individual graphic and design work. The term assignment uses literary sources as a backbone to explore architectural representations and individual assignments challenge students in specific areas of drawing and representation. The skills developed throughout the course will assist students in portfolio creation and communicating their design projects.

Learning Objectives:

- Understand and employ a range of digital techniques and consider their relationship to architectural design and production
- Understand architectural representation within the wider context of technical and artistic production
- Learn the fundamentals of digital graphics and representation (raster, vector, colour space, and screen / print space)
- Learn how to build digital design applications into an iterative workflow
- Learn the fundamentals of 2D/3D CAD (drawing, modelling, and rendering)
- Develop proficiency in cross-platform 3D modelling and visualization
- Develop proficiency and critical intuition when working with digital design

Methods of Evaluation:

Assignment 1: Literary Space	60%
Assignment 2: Architectural Representation	30%
Participation, autonomy & originality	10%

Student Performance Criteria:

A2. Design Skills
A3. Design Tools
B1. Critical Thinking & Communication
B2. Architectural History

ARCH 2316 EL – Structures 1: Wood

BAS - Year 2
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - R. Kober
2018 - R. Kober
2017 - R. Kober

Calendar Description:

This course provides a comprehensive overview of wood from forest to framing and beyond. It introduces students to the species from the great lakes forest to forestry stewardship, and the Forest Stewardship Council (FSC) standards for wood products. The concepts of timber, lumber, and bent-wood are examined. The architectural principles of wood are studied: load bearing path, bending moment, shear, compression and tension. Wooden buildings from ancient cultures are used as case studies, along with modern wood technologies, such as platform framing. Exercises develop analytical skills, diagramming, modelling, and include observing and working with wood directly.

Learning Objectives/Outcomes:

- Students should be able to describe the principles of wood.
- Students should be able to analyze wooden buildings and describe their forces.
- Students should be able to demonstrate how wooden buildings work through drawings, models, and diagrams.
- Students should further refine their sense of craft.

Methods of Evaluation:

Assignment 1: Model 1	10%
Assignment 2: Model 2	10%
Assignment 3: Model 3	30%
Assignment 4: Model 4	25%
Quizzes	25%

Student Performance Criteria:

A7. Detail Design
C2. Materials
C3. Structural Systems

ARCH 2515 EL/FL – Design Studio 4: Landscape II

BAS - Year 2
Format: Studio - 10.5 hours
Prerequisites - ARCH 2505

Instructor(s):
2019 - T. Gaber, R. Kober, K. Mah, E. Smoke
2018 - K. Mah, E. Smoke, J. Harvey, K. Bowman, D. Castellan
2017 - D. Fortin, E. Smoke, JP. Saucier, J. Harvey

Calendar Description:

In this course the theme of LANDSCAPE is expanded to include architectural projects from the Italian villa to the work of Scarpa & Aalto to the High-Line project in New York City. The course examines case studies from Scandinavia and Iceland that incorporate the landscape as part of the architecture, as well as the notion of architecture as landscape. Indigenous and vernacular examples of living within the landscape, such as bermed houses, also form the basis for design projects.

Learning Objectives:

- The student should learn how to study and synthesize lessons from existing precedents where landscape and architecture meet;
- The student should learn how to cultivate critical skills through case studies;
- The student should learn how to apply previous knowledge regarding landscape and ecology to urban design issues in Sudbury.

Methods of Evaluation:

Assignment 1: Site Analysis	10%
Assignment 2: Building with the landscape	10%
Assignment 3: Design Concept	10%
Assignment 4: Spatial Programming	10%
Assignment 5: Design Development	10%
Final Project	45%
Attendance, participation & sketchbook	5%

Student Performance Criteria:

A2. Design Skills
A3. Design Tools
A5. Site Context & Design
B5. Ecological Systems
C1. Regulatory Systems
C5. Environmental Systems

ARCH 2326 EL – Architecture & Ecology

BAS - Year 2
Format: Lecture - 3 hours
Prerequisites - ARCH 2306

Instructor(s):
2019 - K. Mah
2018 - K. Mah
2017 - E. Smoke

Calendar Description (revised):

This course offers an overview of ecology in order to establish a basis for a discussion about architectural design. Where do ecology and architecture meet? Are the two fields at odds with one another, or is there an approach to architecture that leads to a symbiosis with ecological knowledge and action? The course draws upon local expertise, including colleagues at the Living with Lakes research center, in order to introduce the principles of environmental stewardship as well as Indigenous seven-generation thinking.

Learning Objectives:

- To expose architecture students to the ecology movement;
- To teach students about ecology issues in Sudbury and the north;
- To enable students to make connections between design, ecology, and architecture

Methods of Evaluation:

Assignment 1	10%
Assignment 2	10%
Assignment 3	10%
Assignment 4	10%
Assignment 5	10%
Assignment 6	10%
Assignment 7	10%
Assignment 8	10%
Assignment 9	20%

Student Performance Criteria:

B1. Critical Thinking and Communication
B5. Ecological Systems

4.3 Current Course Descriptions

ARCH 2036 EL – Canadian Art & Architecture

BAS - Year 2
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - T. Galvin
2018 - T. Galvin
2017 - T. Galvin

Calendar Description:

This course introduces students to the work of significant artists and architects throughout Canada from the early 20th century to today. Studying the work of indigenous artists alongside the likes of The Group of Seven produces some striking parallels. The architectural work of Ron Thom, Arthur Erickson, Barton Myers, Art Townend, Douglas Cardinal, the Patkaus and others provides countless lessons for students of architecture. How do Canadian architects respond to the light, landscape, and materials associated with regions within Canada? How do artists and architects contribute to the making of Canadian art and architecture in a way that defines Canada as a cultural mosaic? Students study these questions through various works of art and architecture that are examined in class lectures and discussed through group presentations.

Learning Objectives:

- The student should learn about the work of important Canadian artists and architects;
- The student should learn how to study Canadian art from a diverse range of cultural perspectives;
- The student should learn how to recognize characteristics in Canadian architecture according to a variety of regional conditions;
- The student should begin to connect parallel issues (including light and landscape) in Canadian art and architecture

Methods of Evaluation:

Assignment 1	30%
Assignment 2	20%
Assignment 3	15%
Assignment 4	25%
Participation & attendance	10%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
B1. Critical Thinking and Communication
B2. Architectural History
B3. Architectural Theory

ARCH 3505 EL/FL – Design Studio 5: Northern Building

BAS - Year 3
Format: Studio - 10.5 hours
Prerequisites - ARCH 2515

Instructor(s):
2019 - S. Beites, T. Wilson, A. Baechler, JB. Morissette
2018 - D. Fortin, T. Wilson, A. Baechler, A.Bialek, R. Dupuis
2017 - S. Beites, P. Harrop, T. Wilson, A.Baechler

Calendar Description:

Third Year Design Studio is the first to require a complex architectural solution. Northern Building is dedicated to building within the context of Northern Ontario or other northern climates. It introduces students to the method of working with a particular community, through consultation, towards a shared architectural program and project. Creating an inventory of northern building types forms a base for the study of program. Design emphasis is placed on northern climate, local materials, and maximizing resources from within the community. Design-build projects may form part of the course content.

Learning Objectives/Outcomes:

- Begin to draw and understand graphic representation
- Develop research and analysis skills through mapping techniques
- Develop the power of observation through architectural drawing
- Begin to resolve a complex architectural brief into an architectural design
- Appreciate learning through making and hands-on-learning
- Respect the diverse approaches that other students bring to design
- Foster self-ownership and pride in making
- Build self confidence in coming to theory through practice

Methods of Evaluation:

Assignment 1:	20%
Assignment 2a:	10%
Assignment 2b:	15%
Assignment 2c:	35%
Sketchbook I	5%
Sketchbook II	5%
Participation	10%

Student Performance Criteria:

A2. Design Skills
A3. Design Tools
A4. Program Analysis
A5. Site Context & Design
A6. Urban Design
A7. Detail Design
A8. Design Documentation
B1. Critical Thinking & Communication
C1. Regulatory Systems
C2. Materials
E5. Project Mangement

4.3 Current Course Descriptions

ARCH 3006 EL – Indigenous Precedents

BAS - Year 3
Format: Lecture- 3 hours
Prerequisites - none

Instructor(s):
2019 - E. Smoke
2018 - E. Smoke
2017 - P. Stewart

Calendar Description (revised):

The third history course makes explicit the idea of precedent as buildings and settlements become increasingly complex. Case studies are drawn from Indigenous architecture as well as from other relevant building traditions. Particular emphasis is placed on precedents that draw upon Indigenous cultures from the northern and southern hemispheres as they relate to the design of contemporary buildings and shared social settings. The course focuses on a variety of indigenous methodologies that include culture, language, technology, climate, economics, religious organization, including political orientation as paramount "form and identity determinants." The aim of the course is to increase student knowledge regarding precedent that will inform the Design studio sequence.

Learning Objectives/Outcomes:

- Identify the critical nature of several national and international Indigenous artists & Architects.
- Know how to apply a variety of indigenous methodologies influencing contemporary indigenous art & architecture;
- Recognize how cultural precedents informs contemporary indigenous design values and Processes;
- Begin to distinguish global indigenous architecture via a critical & collaborative framework.

Methods of Evaluation:

Assignment 1: Weekly Quizzes	30%
Assignment 2: Research Essay	30%
Assignment 3: Final Project	40%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
B1. Critical Thinking and Communication
B2. Architectural History
B3. Architectural Theory
B4. Cultural Diversity & Global Perspectives
B5. Ecological Systems
E2. Ethical & Legal Responsibilities

ARCH 3316 EL – Structures 2: Connections

BAS - Year 3
Format: Lecture - 3 hours
Prerequisites - ARCH 2316

Instructor(s):

2019 - T. Wilson
2018 - I. Amaral
2017 - I. Amaral

Calendar Description:

While the Structures 1 course looked at various characteristics of wood, this course studies long spans and complex connections. Wood to wood joints, wooden pegs or dowels, lashing, wooden connectors and wood to steel connections are ways that wood and other materials are used to create complex structural systems. The relationships between the full structural system and the precise detail is explored in structural terms through calculations and hands-on experimentation. Structural joints are explored through parametric modeling and drawing building details. The course draws upon publications and examples of architecture in places that build with wood.

Learning Objectives/Outcomes:

- Identify complex structural systems in wood
- Understand the fundamental principles for the design of effective and expressive structures
- Analyze various connections made between wood and steel or concrete
- Demonstrate how wooden long-span systems work through “proof of concept”

Methods of Evaluation:

Quizzes	20%
Test 1	20%
Test 2	20%
Major Assignment	30%
Participation	10%

Student Performance Criteria:

B1. Critical Thinking & Communication
C2. Materials
C3. Structural Systems

ARCH 3515 EL/FL – Design Studio 6: Northern Building II

BAS - Year 3
Format: Studio - 10.5 hours
Prerequisites - ARCH 3505

Instructor(s):
2019 - S. Beites, T. Wilson, A. Baechler, A. Economides
2018 - T. Wilson, A. Baechler, S. Beites, P. Harrop
2017 - S. Beites, P. Harrop, T. Wilson, P. Danielson

Calendar Description (revised):

Northern Building 2 continues to investigate community design projects with various communities. The course offers several possible directions: a) continue to complete the design-build activities of the fall term; b) draw and interpret the project that was built in order to draw lessons from it; or c) begin a related project in the same community or another community with similar interests. Case studies of northern towns as well as a design-build project are introduced. Since third year Design studio requires a complex architectural resolution, students are assessed and evaluated on how well they resolve the matrix of community, built form, and tectonics.

Learning Objectives:

By the end of this course, a student will be able to:

- Begin to draw and understand graphic representation
- Develop research and analysis skills through mapping techniques
- Develop the power of observation through architectural drawing
- Begin to resolve a complex architectural brief into an architectural design
- Appreciate learning through making and hands-on-learning
- Respect the diverse approaches that other students bring to design
- Foster self-ownership and pride in making
- Build self confidence in coming to theory through practice

Methods of Evaluation:

Assignment 1: Case Study	15%
Assignment 2A: Pre-Design & 2B Schematic Design	25%
Assignment 2C: Design Development	35%
Field Trip Assignment	5%
Sketchbook I	5%
Sketchbook II	5%
Class participation	10%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
A4. Program Analysis
A5. Site Context and Design
A6. Urban Design
B1. Critical Thinking and Communication
C1. Regulatory Systems

ARCH 3306 EL – Well-Tempered Environment

BAS - Year 3
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - T. Wilson
2018 - T. Wilson
2017 - T. Wilson

Calendar Description:

This course offers an historical perspective on the development of techniques for the management of environmental conditions in buildings. Putting on a sweater, sitting near a hearth, or opening up a window and a door for cross-ventilation were all ways that humans and architecture interacted prior to the idea of universal comfort through HVAC. Mechanical systems will be discussed and evaluated, as will the principles of the trombe wall, passive solar, green roofs, etc. The treatment of buildings as instruments to be tuned and refined, including occupancy, is of primary focus. Examples of well-tempered buildings will be drawn from across time and from various cultures. While energy modeling software is introduced, the School of Architecture is used to monitor environmental performance as the building responds to dynamic and changing conditions.

Learning Objectives:

- Identify a Well-Tempered Environment and the building systems that contributed to it;
- Articulate how integrated systems design and passive strategies contribute to a Well-Tempered Environment

Methods of Evaluation:

Assignment 1	5%
Assignment 2	20%
Assignment 3	10%
Assignment 4	10%
Assignment 5	10%
Quizzes	10%
Assignment 6	25%
Participation	10%

Student Performance Criteria:

A5. Site Context & Design
B1. Critical Thinking & Communication
B5. Ecological Systems
C4. Envelope Systems
C5. Environmental Systems

4.3 Current Course Descriptions

ARCH 3017 EL – Writings In Architecture

BAS - Year 3
Format: Lecture - 3 hours
Prerequisites - ARCH 2036

Instructor(s):
2019 - S. Bassett
2018 - T. Strickland
2017 - T. Strickland

Calendar Description (revised):

Writings in Architecture is a vehicle to explore key 19th, 20th, and 21st century theories in architecture. At times, the theories are written by architects themselves, although much of the time the works of architecture stand on their own while architecture critics acting as historians, place the work into a larger theoretical context. A crucial component of this course then will be to explore architectural theory as design as part of contemporary, social, cultural and/or political texts will also be explored and analysed. These ideas and theories will be discussed in a seminar format to foster in-depth examinations of each primary text. The goal is to understand and position the primary texts in relation to established course in architectural theory.

Learning Objectives:

- Students will learn about the architectural theories and forms that emerged in the modern and post-modern architectural periods;
- Students will develop the ability to situate architectural theory and design within the evolving social, cultural, and political discourse of the 19th, 20th, and 21st centuries;
- Students will learn to use writing (their own and others') as a tool for analysis of architecture and the built environment.

Methods of Evaluation:

Seminar led discussions	35%
Writing Assignment 1	20%
Writing Assignment 2	20%
Participation in class & seminar	25%

Student Performance Criteria:

B1. Critical Thinking and Communication
B2. Architectural History
B3. Architectural Theory
B4. Cultural Diversity & Global Perspectives

ARCH 0300 EL/FL – Co-operative 2

BAS - Year 4
Format: Co-operative
Prerequisites - ARCH 0100

Instructor(s):
2019 - E. Smoke
2018 - E. Smoke, T. Wilson
2017 - E. Smoke, T. Wilson

Calendar Description (revised):

This course introduces students to work placements in architecture, engineering, or other design discipline offices around Northern Ontario, Canada, and abroad. The second co-op term is intended to expose students to architecture and design in a wide variety of office types and sizes. The educational goal is to continue developing skills in the work place as part of the professional practice co-op model. The Co-op Coordinator guides internship preparation, interviews and placements, but employment is ultimately the responsibility of each student. The paid work-study placement is for a period of 14 weeks, with both an employer and student report to be submitted at the end of the placement. French speaking students will be placed within French office environments wherever possible. Students are required to complete Co-operative 2 before being eligible to register for fourth year ARCH 4505 Studio.

Learning Objectives:

- General knowledge about how architecture and design offices work;
- How to integrate classroom theory with practical work experience;
- How to apply her/his knowledge from three years of the BAS program in a practical setting;
- About the practice of architecture or a related field to which they were not previously exposed

Methods of Evaluation:

Written Employer Evaluation	30%
Written & Graphic Student Report and log	25%
Portfolio, resume & cover letter	25%
5 minute student PowerPoint presentation	20%

Student Performance Criteria:

A2. Design Skills
A3. Design Tools
E1. The Architectural Profession
E3. Modes of Practice

ARCH 4505 EL/FL – Design Studio 7: Integrated Design

BAS - Year 4
Format: Studio - 10.5 hours
Prerequisites - ARCH 3515

Instructor(s):
2019 - A. Economides, JP. Saucier, R. Belair, K. Beites
2018 - S. Bassett, JP. Saucier, R. Belair, D. Castellan
2017 - P. Stewart, JP. Saucier, E. Pinard, R. Belair

Calendar Description:

The final design studio of the BAS program proposes programs for various mid-scale buildings, from housing to industrial or cultural projects. Design projects are intended to incorporate building systems in a comprehensive manner. In keeping with CACB accreditation criteria, each project must display an "Ability to project a comprehensive design based on an architectural idea, a building program and a site. The design or designs should integrate structural and environmental systems, building envelopes, building assemblies, life-safety provisions, and environmental stewardship." While this scope is covered over two terms, the first term is devoted to site selection, architectural design, and building and environmental systems. A series of technical studies are integrated with the final design project.

Learning Objectives/Outcomes:

- Demonstrate complex architectural thinking through design;
- Communicate with other professionals about structural and environmental systems;
- Write technical reports that accompany design work in an integrated manner.

Methods of Evaluation:

Assignment 1: Design-Build	15%
Assignment 2a: Site & Program	20%
Assignment 2b: Conceptual Design	20%
Assignment 2c: Preliminary Design	30%
Participation	10%
Sketchbook	5%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
A4. Program Analysis
A5. Site Context and Design
A6. Urban Design
B1. Critical Thinking and Communication
C1. Regulatory Systems
C3. Structural Systems
C5. Environmental Systems
D1. Comprehensive Design
E5. Project Management

ARCH 4016 EL – Cultural Sustainability

BAS - Year 4
Format: Lecture - 3 hours
Prerequisites - ARCH 3306

Instructor(s):

2019 - E. Pinard
2018 - E. Pinard
2017 - E. Pinard

Calendar Description:

The term "sustainability" was coined in the Brundtland Report (1987). This course introduces students to the concept that cultural sustainability goes beyond the mere requirements of LEED or any other building performance criteria. The course examines a series of case studies, texts, and architectural works that support the cultural aspects of the sustainable. The perspectives of Wendell Berry, Wolgang Sachs, Ernst Schumacher and other critics allow students to reflect upon their work during the previous four years of design school. A final annotated design essay outlines each student's individual definition of 'cultural sustainability.'

Calendar Description (revised):

This course examines a series of case studies, texts and architectural works that aims at understanding and supporting the cultural and social dimensions embedded in the built environment. Through research and a reflection on their work during the previous years of design school, students are invited to think critically about the values embedded in design, the consequences for the practices, knowledge and livelihoods of users and communities globally, as well as the different roles of architects in society.

Learning Objectives/Outcomes:

- Critically distinguish various forms of sustainability and their consequences for cultural development and social change;
- Observe and analyze the built environment in order to evaluate how it frames and supports the experiences, behaviours and representations of people and communities;
- Write about architecture within social and cultural terms that situate technological, environmental and economic issues regarding sustainability.

Methods of Evaluation:

Quizzes	20%
Assignment 1. Comparative essay	30%
Assignment 2a: Architecture & game research	10%
Assignment 2b: Game prototype	15%
Assignment 2c: Final game	25%

Student Performance Criteria:

B1. Critical Thinking & Communication
B4. Cultural Diversity & Global Perspectives
C1. Regulatory Systems
E2. Ethical & Legal responsibilities

4.3 Current Course Descriptions

ARCH 4316 EL – Structures 3: Building Systems

BAS - Year 4
Format: Lecture - 3 hours
Prerequisites - ARCH 3306

Instructor(s):

2019 - T. Wilson
2018 - T. Wilson
2017 - T. Wilson

Calendar Description:

This course begins in understanding that Sudbury lies at 46 degrees North latitude. Building systems should support the ideas underlying a building's site, parti, and detailing. This course will continue and increase the depth of knowledge in building systems and environmental performance acquired in ARCH 3306, The Well-Tempered Environment.

Emphasis in this course will be placed on building systems integration and the development of an understanding of building performance measurement tools. The course will begin with the premise that building can serve as a basis for architectural design. Architects such as Louis Kahn mastered this understanding of systems integration in many of his buildings. This work will complement the work done in the fourth year design studio.

Learning Objectives:

- The student shall learn about integration of building systems;
- The student shall learn how to apply knowledge of building systems to their own design projects;
- The student shall learn to evaluate buildings through a systems thinking approach

Methods of Evaluation:

Assignment 1	20%
Assignment 2	25%
Assignment 3	45%
Participation	10%

Student Performance Criteria:

A3. Design Tools (added for F2020)
A7. Detail Design
A8. Design Documentation
C2. Materials
C3. Structural Systems
C4. Envelope Systems
C5. Environmental Systems

ARCH 4515 EL/FL – Design Studio 8: Integrated Design II

BAS - Year 4
Format: Studio - 10.5 hours
Prerequisites - ARCH 4505

Instructor(s):
2019 - S. Bassett, JP. Saucier, R. Belair, D. Castellan
2018 - E. Pinard, T. Galvin/K. Alladin, JP. Saucier, R. Belair
2017 - T. Galvin, P. Stewart, E. Pinard, R. Belair

Calendar Description:

This course requires students to work in groups in order to reiterate a particular design project from the previous term (ARCH 4505). Various consultants from outside are brought in for specialized knowledge regarding "building assembly requirements, building codes, life-safety systems, and environmental issues." Design projects are further developed to integrate "structural and environmental systems, building envelopes, building assemblies, life-safety provisions, and environmental stewardship." (CACB). The final project includes a detailed technical report on the integrated design work of each individual or group.

Learning Objectives/Outcomes:

- Demonstrate advanced design and modelling skills;
- Demonstrate complex architectural thinking and systems integration through design;
- Communicate with other professionals about structural and environmental systems;
- Write technical reports that accompany design work in an integrated manner.

Methods of Evaluation:

Assignment 1: Design Build	10%
Assignment 2: Facade Analysis	10%
Assignment 3a: Building Code Research	15%
Assignment 3b: Detail Design	20%
Assignment 3c: Final Design	35%
Participation	10%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
A6. Urban Design
A7. Detail Design
A8. Design Documentation
B1. Critical Thinking and Communication
C1. Regulatory Systems
C2. Materials
C3. Structural Systems
C4. Envelope Systems
C5. Environmental Systems
D1. Comprehensive Design

4.3 Current Course Descriptions

ARCH 4006 EL - Building Case Studies

BAS - Year 4
Format: Lecture - 3 hours
Prerequisites - ARCH 3006

Instructor(s):

2019 - R. Kober
2018 - R. Kober
2017 - R. Kober

Calendar Description:

This course furthers each student's ability to conduct a sustained study of a complex work of architecture through select building case studies. Well designed and well documented buildings are studied in parallel to the Integrated Design studio in order to deepen each student's analytical abilities. Buildings are drawn, modelled, dissected, and recombined in a manner that allows us to understand and appreciate the complexity of a given design. Contemporary building culture in Canada as well as iconic buildings from around the world are the subject of study.

Learning Objectives:

- The student will learn about complexity in design through analysis
- The student will learn about architectural culture through synthesis
- The student will learn how to conduct a complex case study report

Methods of Evaluation:

Sketchbook 1: Notes	20%
Assignment 1: Identity, individual project	20%
Assignment 2: Domesticity, individual project	20%
Sketchbook: Travel assignment	10%
Assignment 3: Complexity, group presentation	30%

Student Performance Criteria:

A4. Program Analysis
A6. Urban Design
B1. Critical Thinking and Communication
B2. Architectural History
B3. Architectural Theory

ARCH 4306 EL - Digital Fabrication

BAS - Year 4
Format: Lecture - 3 hours
Prerequisites - none
Instructor(s):

2019 - P. Harrop
2018 - P. Harrop
2017 - P. Harrop

Calendar Description:

This course introduces architecture students to various software programs related to fabrication. The course gives students an overview of the various digital tools from laser cutters to 3D printers. Examples of projects may include millwork, industrial design, furniture making, or other forms of rapid prototyping and digital fabrication applied to the craft of making. As a teaching method, comparisons are made between manual craft and digital craft. What are the limitations and potentials of either craft? Ultimately, the course examines how students integrate digital fabrication within their repertoire of design & representation skills.

Learning Objectives:

- The student shall learn the basics of digital tools;
- The student shall learn how to use digital technology to support design solutions;
- The student will investigate different materials and methods, including hybrid technologies

Methods of Evaluation:

Assignment 1: Dreamland/Lighting Project	35%
Assignment 2: Fabrication device	35%
Journal	15%
Participation and Overall Performance	15%

(note: these deliverables were modified due to COVID-19 in 2020)

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
A7. Detail Design
C2. Materials

ARCH 5505 EL/FL – Design Studio 9: Architecture & Craft

MArch - Year 1
Format: Studio - 10.5 hours
Prerequisites - none

Instructor(s):
2019 - R. Kober
2018 - T. Gaber, M. Baechler
2017 - T. Gaber

Calendar Description:

This optional graduate Design Studio, selected by each student, examines issues of craft in architecture. Studying the history of manual craft and digital craft forms a foundation for positioning the specific design studio project. The studio focuses on the making of building details; other times it focuses on the methods of production that lead to craft. Vernacular buildings and building systems are introduced as case studies and references. The notion of craft in architecture allows building details to become generators of the larger architectural project.

Learning Objectives/Outcomes:

- Be able to demonstrate detailed design development;
- Be proficient with building materials and assemblies;
- Have knowledge of technical documentation regarding detail and craft

Methods of Evaluation:

Assignment 1-4: Project prep	30%
Assignment 5-8: Design Build	50%
Participation	10%
Collaboration	10%

Student Performance Criteria:

A1. Design Theories, Precedents and Methods
A2. Design Skills
A3. Design Tools
A7. Detail Design
A8. Design Documentation
B1. Critical Thinking & Communication
C2. Materials

ARCH 5515 EL/FL – Design Studio 9: Community Building

MArch - Year 1
Format: Studio - 10.5 hours
Prerequisites - none

Instructor(s):
2019 - K. Mah (English), E. Pinard (French)
2018 - E. Pinard (French)
2017 - T. Galvin (English)

Calendar Description:

This optional graduate Design Studio, selected by each student, continues to examines architectural design within the context of 'community building.' The studio will guide students towards the study of indigenous and vernacular practices of existing communities in an attempt to identify how architects bring their expertise of design to bear upon various community projects. Studio design problems are identified each year, building upon various community groups' needs and requests. Partnerships between faculty members and community groups form an are integral part of to this graduate studio course.

Calendar Description (revised):

This graduate Design Studio examines architectural design within the context of 'community building.' Studio design problems are identified each year, building upon various community groups' needs and requests. Partnerships between faculty members and community groups are integral to this course.

Learning Objectives/Outcomes:

- Be further skilled in site design;
- Become proficient with certain building materials and assemblies;
- Gain an understanding of leadership and advocacy through design.

Methods of Evaluation:

Assignment 1: Charrette	15%
Assignment 2: Material for community visit	15%
Assignment 3a: Site + program ststrategy	15%
Assignment 3b: Preliminary design	20%
Assignment 3c: Final Decisign	25%
Participation	10%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
A4. Program Analysis
B1. Critical Thinking and Communication
B4. Cultural Diversity & Global Perspectives

4.3 Current Course Descriptions

ARCH 5525 EL/FL – Design Studio 9: Indigenous Design

MArch - Year 1
Format: Studio - 10.5 hours
Prerequisites - none

Instructor(s):
2019 - D. Fortin
2018 - J. Chakasim
2017 - D. Fortin

Calendar Description:

This optional graduate Design Studio, selected by each student, examines questions surrounding 'Indigenous design.' How does the study of Indigenous knowledges, cultures, practices and traditional protocols inform design? Indigenous design context, processes, strategies and views of the planet are explored in an attempt to broaden the discourse on architecture from the perspective of Indigenous communities. Design Studio projects are identified each year, building upon various community requests. Partnerships between faculty members and community groups are integral to this course.

Learning Objectives/Outcomes:

- Be further skilled in approaching design through Indigenous thinking;
- Become proficient in synthesizing a particular community's insights, perspectives and parameters into design responses;
- Gain an understanding of leadership and advocacy through Indigenous design

Methods of Evaluation:

Assignment 1: Canoe Build	30%
Assignment 2: Mapping the connector	15%
Assignment 3: Drawing translations	10%
Assignment 4: Site & Program Development	10%
Assignment 5: Final Design	35%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
B1. Critical Thinking and Communication
B4. Cultural Diversity & Global Perspectives

ARCH 5306 EL – Fabrication I

MArch - Year 1
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - B. Wrightsman
2018 - S. Beites
2017 - S. Beites

Calendar Description:

This course is the first of three courses in the graduate program on 'Fabrication.' The course introduces various theories of digital and manual craft, based upon themes set for the course. Projects and assignments explore the idea of hybrid technologies as they relate to architectural design. The aim of the first graduate course is to gain an overview of various technologies in the Fabrication Labs including metal, wood, earth, and digital processes.

Calendar Description (revised):

This course provides students with a framework for which to gain a deeper understanding of the models and processes pertaining to architectural design and fabrication. Students are introduced to the tools and workflows surrounding computer numerical controlled (CNC) machines, CAD/CAM technologies, 3D printing, etc. Projects and assignments focus on both digital and manual craft, exploring hybrid technologies within a refined material sensibility (including wood, concrete, metal and earth). Periodic readings and discussions topics serve as a platform to further investigate the relationship between process, materiality, fabrication and performance.

Learning Objectives/Outcomes:

- Have knowledge of technical documentation through software and shop drawings;
- Increase their design skills in relation to technology;
- Gain a deeper understanding on the latest advancements in architectural design and fabrication;
- Gain a working knowledge of both additive and subtractive fabrication strategies culminating in a material - driven, three - dimensional prototype;
- Have ability to develop methods of iterative design through hybrid digital and physical techniques of making

Methods of Evaluation:

Project 1	20%
Case Study Research	25%
Project 2	35%
Process Notebook	20%

Student Performance Criteria:

A2. Design Skills
A3. Design Tools
A7. Detail Design
A8. Design Documentation
C2. Materials
C3. Structural Systems

4.3 Current Course Descriptions

ARCH 5906 EL – Architectural Practice

MArch - Year 1
Format: Lecture - 3 hours
Prerequisites - none
Previous Course Codes: ARCH 0616; 5616

Instructor(s):
2019 - E. Smoke
2018 - E. Smoke
2017 - E. Smoke

Calendar Description:

Lectures and presentations introduce students to the various scales of architectural practice within Ontario. Profiles of a range of practices within Canada and abroad are intended to assist students in their selection of a design firm during the co-op terms (ARCH 5915 & ARCH 5925). The course surveys the Canadian Handbook of Practice for Architects, focusing on the architect as a professional (types of architectural contracts, project management, building codes, liability and coordination with other consultants). The course also introduces students to the Intern in Architecture Program (IAP) that begins upon graduation.

Learning Objectives/Outcomes:

- Have knowledge about the legal responsibilities of practice;
- Better understand ethics and professional judgment in Architecture;
- Be able to identify leadership and advocacy in design practices

Methods of Evaluation:

Assignment 1: Weekly Quizzes	20%
Assignment 2: Research Essay	30%
Assignment 3: Summary Board	20%
Final Examination	30%

Student Performance Criteria:

B1. Critical Thinking and Communication
B4. Cultural Diversity & Global Perspectives
C1. Regulatory Systems
E1. The Architectural Profession
E2. Ethical & Legal Responsibilities
E3. Modes of Practice
E4. Professional Contracts
E5. Project Management

ARCH 5915 EL/FL – Co-operative Term 3

MArch - Year 1
Format: Co-operative Term
Prerequisites - none
Previous Course Code: ARCH 0506

Instructor(s):
2019 - P. Harrop
2018 - T. Gaber

Calendar Description:

This graduate course exposes students to work-study office placements for an extended period of time. Placements in architecture, engineering, or other design disciplines in Northern Ontario, Canada, and abroad form a basis for global practice. In sequence with ARCH 0606, this co-op term exposes students to internships in a wide variety of office types and sizes. Paid work-study placements are for a period of 14 weeks, with an employer and student report to be submitted at the end of the placement. French speaking students will be placed within French office environments whenever possible. Internship preparation, interviews and placements are guided by the Co-op coordinator, but employment is ultimately the responsibility of each student. In extreme situations, individual research topics may be substituted by the School of Architecture in place of work-study placement.

Course Description (revised):

This course offers paid work-study office placements for 14 weeks. Placements in architecture, engineering, or other design disciplines in Northern Ontario, Canada, and abroad, form a basis for global practice. Internship preparation, interviews and placements are guided by the Co-op coordinator, but employment is ultimately the responsibility of each student.

Learning Objectives/Outcomes:

- Experience practice organization & forms of collaboration;
- Have knowledge of particular types of practice organization;
- Deepen their understanding of professional internship

Methods of Evaluation:

Employer's report	30%
Bi-monthly reports	30%
End-term report	40%

Student Performance Criteria:

B5. Ecological Systems
C1. Regulatory Systems
C2. Materials
C3. Structural Systems
C4. Envelope Systems
C5. Environmental Systems
E1. The Architectural Profession
E2. Ethical & Legal Responsibilities
E3. Modes of Practice
E4. Professional Contracts
E5. Project Management

4.3 Current Course Descriptions

ARCH 5925 EL/FL – Co-operative Term 4

MArch - Year 2
Format: Co-operative
Prerequisites - ARCH 5915

Instructor(s):
2019 -S. Beites/D. Fortin
2018 - D. Fortin

Calendar Description:

This graduate course exposes students to work-study office placements for an extended period of time. Placements in architecture, engineering, or other design disciplines in Northern Ontario, Canada, and abroad form a basis for global practice. In sequence with ARCH 0606, this co-op term exposes students to internships in a wide variety of office types and sizes. Paid work-study placements are for a period of 14 weeks, with an employer and student report to be submitted at the end of the placement. French speaking students will be placed within French office environments whenever possible. Internship preparation, interviews and placements are guided by the Co-op coordinator, but employment is ultimately the responsibility of each student. In extreme situations, individual research topics may be substituted by the School of Architecture in place of work-study placement.

Course Description (revised):

This course offers paid work-study office placements for 14 weeks. Placements in architecture, engineering, or other design disciplines in Northern Ontario, Canada, and abroad form a basis for global practice. Internship preparation, interviews and placements are guided by the Co-op Coordinator, but employment is ultimately the responsibility of each student.

Learning Objectives/Outcomes:

- Experience practice organization & forms of collaboration;
- Have knowledge of particular types of practice organization;
- Deepen their understanding of professional internship

Methods of Evaluation:

Employer Report	30%
Assignment 1	40%
Assignment 2	30%

Student Performance Criteria:

B5. Ecological Systems
C1. Regulatory Systems
C2. Materials
C3. Structural Systems
C4. Envelope Systems
C5. Environmental Systems
E1. The Architectural Profession
E2. Ethical & Legal Responsibilities
E3. Modes of Practice
E4. Professional Contracts
E5. Project Mangement

ARCH 5555 EL/FL – Thesis Studio I

MArch - Year 2
Format: Studio - 10.5 hours
Prerequisites - ARCH 5505/ARCH 5515/ARCH 5525

Instructor(s):
2019 - P. Harrop
2018 - P. Harrop

Calendar Description:

The final year of the MArch Program is centred on an individual design proposition by each student. This follows extensive experience in group work and collaboration with other students and communities. Thesis Studio 1 is where students develop a research hypothesis and test it through the cyclical and iterative actions of thinking and making. Written research and design research are encouraged to reinforce each other rather than to be viewed in a linear sequence. Students are expected to form their Thesis Committee during this course.

Learning Objectives:

- The student should learn how to research a written design thesis;
- The student should learn how to conduct advanced research in architecture;
- The student should develop methods for testing the cyclical nature of thinking/making through design

Methods of Evaluation:

Quality proposals	30%
Penultimate review	30%
Final review	40%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
A4. Program Analysis
A5. Site Context and Design
A6. Urban Design
B1. Critical Thinking and Communication
B2. Architectural History
B3. Architectural Theory
B4. Cultural Diversity & Global Perspectives
B5. Ecological Systems

ARCH 5316 EL/FL – Faculty Research Seminar (multiple sections)

MArch - Year 2
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):
2019 - S. Beites, A. Economides, P. Harrop
2018 - S. Beites, A. Economides, P. Harrop

Calendar Description:

This course allows individual faculty members to present specialized projects or current research within a graduate seminar setting. The course has 3 to 4 parallel sections and each section has a specific instructor for the entire term. Instructors present their individual research as a venue for further study and discussion by students. Research topics presented by each instructor may inform or complement architectural questions arising in Thesis Studio 1 (ARCH 5555).

Learning Objectives:

• Develop abilities and gain specific knowledge about specialized research;
• Learn how to synthesize technical or cultural knowledge through research;
• Formulate advanced research questions in design

Methods of Evaluation:

Research Project:	
a. Seminar	15%
b. Paper/Study	15%
Journal	20%
Folio of drawing project	50%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
B1. Critical Thinking and Communication

ARCH 5326 EL – Fabrication 2

MArch - Year 2
Format: Lecture - 3 hours
Prerequisites - ARCH 5306
Former Course Code: ARCH 5316

Instructor(s):

2020 - R. Kober
2019 - R. Kober

Calendar Description (revised):

The final course in the graduate program on 'Fabrication' builds upon the knowledge gained in ARCH 5306. Projects are instructed in a tutorial manner. A major objective of the course is to explore the design of advanced systems in architecture. Projects and assignments continue to explore the idea of hybrid technologies as they relate to architectural design. Fabrication technologies, material studies, or building details may inform or support complex design questions arising in Thesis Studio 2 (ARCH 5565).

Learning Objectives:

- The student should learn about materials and assemblies;
- The student should learn about detailed design;
- The student should learn about advanced building systems integration

Methods of Evaluation:

Assignment 1: Midterm	30%
Assignment 2: Exhibition	50%
Participation & Sketchbook	20%

Student Performance Criteria:

A7. Detail Design
C2. Materials
E5. Project Management

4.3 Current Course Descriptions

ARCH 5006 EL - Architectural Theory Seminar

MArch - Year 2
Format: Lecture - 3 hours
Prerequisites - none

Instructor(s):

2019 - I. Amaral
2018 - I. Amaral

Calendar Description:

This advanced seminar in architecture examines architectural theory from a variety of perspectives. Selected issues in architectural thinking are chosen by the instructor as a vehicle to discuss wider issues in architectural discourse. Modularity, mass production, the role of tectonics, the social role of architecture, and meaning in contemporary architecture are themes from which the course draws its content. Students read primary source material from a variety of authors and sources on architecture and design. The course is intended to assist students in positioning their individual Thesis work within a larger context of theory.

Learning Objectives/Outcomes:

- Demonstrate advanced research skills;
- Demonstrate advanced verbal and writing skills;
- Have the ability to apply architectural theory to design issues.

Methods of Evaluation:

Research paper	30%
Annotated bibliography	30%
Quiz	15%
Final work	25%

Student Performance Criteria:

B1. Critical Thinking and Communication
B3. Architectural Theory
B4. Cultural Diversity & Global Perspectives

ARCH 5565 EL/FL - Thesis Studio 2

MArch - Year 2
Format: Studio - 10.5 hours
Prerequisites - ARCH 5555

Instructor(s):

2020 - T. Galvin
2019 - T. Galvin

Calendar Description:

The final year of the MArch Program is centred on an individual design proposition by each student. Following Thesis Studio 1, Thesis Studio 2 focuses on complex individual design projects. Since the design Thesis is the culmination of a professional program in architecture, design projects should include a proposition about a building, or a series of buildings within a community setting. During this process, written research and design research are encouraged to reinforce each other rather than to be viewed in a linear sequence. ARCH 5326 and ARCH 5086 further complement and support the design Thesis.

Learning Objectives:

- The student should learn how to frame research questions in architecture;
- The student should learn how to collaborate with others;
- The student should learn how to achieve comprehensive design

Methods of Evaluation:

Design Process	20%
Penultimate Review	20%
Final Thesis Report	30%
Final Thesis Project	30%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
A5. Site Context and Design
B1. Critical Thinking and Communication
B2. Architectural History
B3. Architectural Theory
B4. Cultural Diversity & Global Perspectives
D1. Comprehensive Design

4.3 Current Course Descriptions

ARCH 5086 EL – Material Culture

MArch - Year 2
Format: Lecture - 3 hours
Prerequisites - ARCH 5006

Instructor(s):
2020 - T. Strickland
2019 - T. Strickland

Calendar Description (revised):

Beginning with Henry Glassie's term 'material culture,' this course examines architecture and the making of architecture as an expression of societal needs and wants. The physical nature of artifacts and their material expression forms a basis for analysis and speculation. The course draws upon other related disciplines such as anthropology, ethnography and gender studies. The aim of the course is to relate material culture to the act of designing things, buildings, and communities.

Learning Objectives:

- The student should learn about human behavior through material culture;
- The student should learn about cultural diversity through “things”;
- The student should learn how to design in a sustainable manner

Methods of Evaluation:

Book Artifact Analysis / presentation	30%
Artifact Description draft	15%
Masters Thesis Exhibit Maquette	25%
Artifact Description	25%
Masters Thesis Exhibit	5%

Student Performance Criteria:

A1. Design Theories, Precedents, and Methods
A2. Design Skills
A3. Design Tools
B1. Critical Thinking and Communication
B3. Architectural Theory
B4. Cultural Diversity & Global Perspectives
C2. Materials

Current Faculty Resumes (Full-Time Faculty) 4.4

4.4 Current Faculty Resumes

Izabel Amaral, Ph.D.
Assistant Professor

Date of Appointment: 2016
Area of Expertise: Architecture, History and theory of Architecture, Structures

Recent Teaching Assignments

2018-2020	ARCH 5006: Architectural Theory Seminar
2016-2018	ARCH 3316: Structures 2 - Connections
2016-2020	ARCH 1505: Atelier de conception 1 ARCH 1515: Atelier de conception 2

Education

2010	Ph.D en aménagement. Théorie et histoire de l'architecture. Faculté de l'aménagement, Université de Montréal
2004	Mestrado (Master), Departamento de Arquitertura e Urbanismo, Universidade Federal do Rio Grande do Norte (Brazil)
2000	Bacharelado (MArch, Professional degree). Departamento de Arquitertura e Urbanismo, Universidade Federal de Pernambuco (Brazil)

Teaching Experience

2016 - Pres.	Faculty, McEwen School of Architecture, Laurentian University, Sudbury
2016	Part-time, École d'architecture, Université Laval, Québec
2012	Part-time, École d'architecture, Université de Montréal, Montréal
2008	Part-time, École d'architecture, Université de Montréal, Montréal
2005	Full-time, Departamento de arquitetura, Universidade Potiguar, Natal (Brazil)

Recent Publications

2020	Amaral, Izabel. "Connections of immaterial to sustainable tectonics". In : *Sustainable architecture – between measurement*, Carmela Cucuzzella et Sherif Goubran, Montréal (coming 2020).
2018	Marques, Sonia; Amaral, Izabel; Freire, Adriana. "Sans rebelles et sans causes : notes sur l'architecture brésilienne contemporaine et sa société". ARQ La revue d'architecture n.182, février, pp.16-19
2017	Amaral, Izabel. "The future of the Canadian House in… 1954". In : Chupin, Jean-Pierre (ed.). *Competing for Excellence in Architecture* (editorials from the Canadian Competitions Catalogue, 2006 – 2016), Potential Architecture Books, Montréal
2017	Amaral, Izabel. "Competition for the 1970 Osaka Expo : When Canadian Identity was not a Circus Affair". In : Chupin, Jean-Pierre (ed.). *Competing for Excellence in Architecture* (editorials from the Canadian Competitions Catalogue, 2006 – 2016), Potential Architecture Books, Montréal
2016	Amaral, Izabel. "Concours pour l'Expo Osaka 1970 : quand l'identité canadienne n'était pas une affaire de cirque. In : In : Chupin, Jean-Pierre (ed). *Concourir à l'excellence en architecture* (éditoriaux du CCC 2006-2016), Montréal, Potential Architecture books,. pp 124-127

2016 Amaral, Izabel. “La maison canadienne du futur… en 1954. In : Chupin, Jean-Pierre (ed). *Concourir à l’excellence en architecture* (éditoriaux du CCC 2006-2016), Montréal, Potential Architecture books, , pp76-77

2016 Mendonça, Maria Collier, Amaral, Izabel, Mosaner, Fabio. “Occupy Estelita: postcards from Recife, Brazil”. *Scapegoat*, Vol. 9, pp.174-182

Recent Scholarship, Research and Creative Activities

2020- Grant-funded Research: “An Ecology of Wood Cultures in Canada (2003-2020): comparing constructive Cultures through awarded architectural designs”. Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, Federal Government of Canada. Co-applicants: Carmela Cucuzzella, Jean-Pierre Chupin.
$74,983.00

2020- Grant-funded Research: “Contribution to an Edited Book on Architecture and Sustainability”. Fond de recherche de l’Université Laurentienne (LURF / FRUL) . CND$ 4080.00

2018- Grant-funded Research: “Review on Wood Architecture: 20th and 21st century texts and buildings”. Fond de recherche de l’Université Laurentienne (LURF / FRUL). $5.000

2020 Amaral, Izabel, Salim Filali. *Variation with two pendulum Harmonograph and light / Variation avec l’harmonograph à deux pendules et lumière*. Installation. Nuit Blanche, Sudbury, février

2019 Amaral, Izabel. *Two pendulum Harmonograph and drawings / Harmonograph à deux pendules et dessins*. Installation pour la Nuit Blanche, Sudbury, 26 janvier,

2019 Amaral, Izabel; Korb, Kayla; Duff, Cassidy; Lafrenière, Brianna. *Dancing Geometry: Atom*. Performance (3:30min) présentée à Nuit Blanche, Sudbury, 26 janvier,

2019 Amaral, Izabel; Korb, Kayla; Duff, Cassidy; Lafrenière, Brianna. *Dancing Geometry: Pentagon*. Performance (5:30min) présentée à Nuit Blanche, Sudbury, 26 janvier,

2019 Korb, Kayla; Amaral, Izabel; Duff, Cassidy; Lafrenière, Brianna. *Dancing Geometry: Borromini.* Performance (7 min) présentée à Nuit Blanche, Sudbury, 26 janvier,

2018 Amaral, Izabel. *Elevation*. Installation for Nuit Blanche, Sudbury, March 27

Academic, Professional, and Public Service

2002-2005 Metropolis Arquitetura (Natal, Brazil), Associate Architect

2000-2013 Lins & Amaral (Recife, Brazil), Associate Architect

4.4 Current Faculty Resumes

Mark Baechler, Dipl.Arch.Tech, B.A.S., MArch, OAA
Assistant Professor

Date of Appointment: 2013
Area of Expertise: Architecture, Wood Furniture, Architectural Drawing

Recent Teaching Assignments

2020-2021	ARCH 5316 EL 01: Faculty Research Seminar (Drawing Architectural Imagination) ARCH 2505 EL 03: Design Studio 3: Landscape I ARCH 2515 EL 03: Design Studio 4: Landscape II
2019-2020	Sabbatical Leave
2018-2019	ARCH 1006: Design Thinking ARCH 1515 EL: Design Studio 2: Place II ARCH 5505 EL: Architecture and Craft Thesis, Supervisor: Marc Bartolucci Thesis, Supervisor: Sahana Dharmaraj Thesis, Supervisor: Kayla Korb Thesis, Second Reader: Anastasia Renaud

Education

2006	Master of Architecture (M. Arch.) Professional Degree, Carleton University
2004	Bachelor of Architectural Studies (B.A.S) Carleton University
1999	Architectural Technologist (Dipl. Arch. Tech) Loyalist College

Teaching Experience

2013 - Pres.	Assistant Professor, with Tenure, Laurentian University McEwen School of Architecture
2008	Adjunct Professor, University of Toronto Faculty of Architecture, Landscape & Design
2005 -2006	Sessional Instructor, Carleton University School of Architecture

Recent Publications

2017	Baechler, M. “Drawing the house of Abraham.” In *Drawing: Research, Theory, Practice,* Volume 2, No.1 (2017): 143-155

Recent Scholarship, Research and Creative Activities

2020 "The Birch Chair: A Design Exploration of Hardwood Species in Northern Ontario Forests"
Wood Furniture and Architecture Design/Build Research
Laurentian University Research Fund (LURF): $4,250

2019 "International Wood Educators Conference"
Laurentian University McEwen School of Architecture, Sept 12-13, 2019
Conference co-organizer with Randall Kober

2019 "Work on Wood Symposium 2019"
Laurentian University McEwen School of Architecture, March 17, 2019
Symposium organizer

2018 - 20 "Wegner Variations"
Wood Furniture and Architecture Design/Build Project, Laurentian University, Sudbury, ON
McEwen Gift Agreement: $20,230

2018 "Work on Wood Symposium 2018"
Laurentian University McEwen School of Architecture, March 21, 2018
Symposium co-organizer with Randall Kober and Patrick Harrop

2017 "Abrahamic Architecture"
Architectural Drawing Research/Creation
Laurentian University Research Fund (LURF): $5,000

2017 "Light and the Absence of Light No.2"
Invited Architectural Installation: Nuit Blanche, Laurentian University, Sudbury, ON
In Collaboration with Amber Baechler

2017 "Christ of the Light Mosque/Church No.1"
sogni d'oro, Architectural drawing group exhibition
Virginia Polytechnic Institute and State University School of Architecture,
Alexandria, Virginia.

2017 "Cyan-Magenta-Yellow-Green (C-M-Y-G)"
Invited Architectural Installation: UpHere Urban Art and Music Festival, Sudbury, ON
In collaboration with Northern Ontario Society of Architects
Ontario Association of Architects: $5,000

2017 "Arthur Townend Architect - Fielding Memorial Chapel of St. Mark, Thorneloe University, Sudbury, ON"
2017 Ontario Association of Architects Landmark Designation Award

Academic, Professional, and Public Service

2013 - Pres. Mark Baechler Architect, Certificate of Practice 5103

2011 - Pres. Ontario Association of Architects (OAA), Registered Architect 6834

2015 - Pres. Northern Ontario Society of Architects, Board Member

4.4 Current Faculty Resumes

Shannon Bassett, B.Arch with Distinction, MArch in Urban Design
Assistant Professor

Date of Appointment: 2018
Area of Expertise: Architecture, Urban Design, Landscape and Ecology as Urbanism, Informal Settlement, Sustainability in Architecture + Urban Design, Architecture and Urbanism in Asia

Recent Teaching Assignments

2020-2021	ARCH 2505: Design Studio 3: Landscape ARCH 2515: Design Studio 4: Landscape ARCH 3017: Writings in Architecture ARCH 3906: Independent Study:Future of Ontario Place, Ntnl. Student Ideas Competition
2019-2020	ARCH 2505: Design Studio 3: Landscape (Coordinator) ARCH 2515: Design Studio 4: Landscape ARCH 3017: Writings in Architecture ARCH 3906: Independent Study: NCC Urban Design Challenge Thesis Advisor: Shayne Bol + Taylor McGee
2018-2019	ARCH 4505: Design Studio 7: Integrated Design I ARCH 4515: Design Studio 8: Integrated Design II ARCH 3017: Writings in Architecture ARCH 3906: Independent Study: Capital Riverfront Challenge-NCC Student Ideas Competition + Timber in the City ACSA Student Ideas Competition Thesis Advisor: Paige Tuusa + Justen Waldick

Education

2005	Masters of Architecture in Urban Design (MAUD), Harvard Graduate School of Design
1998	Bachelor of Architecture with Distinction, Carleton University (Professional degree)

Teaching Experience

2018 - Pres.	Faculty, McEwen School of Architecture, Laurentian University, Sudbury
2015 – Pres.	Invited Visiting Professor, Busan International Architectural Design Workshop (BIADW) – Campus Asia Program, Dept. of Architecture, Pusan National University, South Korea
2014-2017	Assistant Professor, University at Buffalo School of Architecture and Planning Director of China Architecture Education Abroad Program
2007-2014	Assistant Professor, Univ. of South Florida School of Architecture and Community Design Director of China Architecture Education Abroad Program
2006-2007	Adjunct Professor, Dept. of Architecture, Wentworth Inst. of Technology, Boston, MA.
2004-2005	Teaching + Research Assistant, Department of Urban Design + Planning + Centre for Urban Development Studies, Harvard Graduate School of Design, Cambridge MA.
2002 (Spring)	Visiting Professor, Dept. of Architecture, Wentworth Inst. of Technology, Boston, MA.
2000-2003	Adjunct Professor, Dept. of Architecture, Wentworth Inst. of Technology, Boston, MA.

Recent Publications

2020 Chapters, “Interiorized Infrastructural Urbanisms-Revisiting Canada’s Underground City(ies)”+“The University Campus - Climate-responsive Academic Interior Urbanism in Canada”, Interior Urbanism Theory Reader, Ed.: Greg Marinic, Routledge, Forthcoming

2020 Chapters, “Urban and Suburban Ecosystems” and “Sustainability in Asia”, The Palgrave Handbook of Global Sustainability, The Springer Nature Reference Handbooks, Palgrave, Springer Nature, Edited by Robert Brinkmann, Forthcoming

2020 Chapter, “Recent Emerging Trends in Housing Projects in Canada and the US”, Future – Next Generation Housing, Editor: Mladen Jadric, Wiley, Forthcoming

2019 Busan International Architectural Design Workshop, Local Regeneration by Waterfront Development of Yeongdo in Busan, Publications of student’s work, “Performative Ecological Urbanism” and “Touching History”, BAF, Fall 2019.

2019 Bassett, Shannon, “(Re) Stitch Tampa - Designing the Design Competition: The Architectural Design Competition as a Research Platform and Pedagogical Tool”, in Competitions, pp. 274-275, in BLACK BOX: Articulating Architecture’s Core in the Post-Digital Era, 107th Annual Meeting, Editors: Jeremy Ficca, Amy Kulper and Grace La, ACSA, 2019, Published in Washington, DC., 651p.

Recent Scholarship, Research and Creative Activities

2020 Lecture, “Designing at the Interstitial and the Peripheral -Reclaiming and Recovering Public Space through Performative Ecologies”, invited speaker, (Un)confined Landscapes online lecture series, hosted by the Department of Landscape Architecture at the School of Planning and Architecture (SPA) Bhopal, Madhya Pradesh, India.

2020 Presented “Designing at the Interstitial in the Global South - Reclaiming and Recovering Public Space through Performative Ecologies”, in the Special Focus Session, “Emerging Urbanisms in Latin America and the Global South” at the ACSA 108 th Annual National Virtual Meeting, “OPEN.”

2020 ACSA Pivot to Online Learning Discussion Session, “Grounding: Approaches to Site and Landscape in a Time of Online Learning Discussion”, instigator/moderator/convener.

2020 “Integrating Indigenous Land-Based Learning into the Architectural Curriculum”, in CELA (Council for Educators in Landscape Architecture Conference, Deep Time: 100 Years of CELA, March 2020 Abstract Published *Postponed due to COVID

2019 3rd Asian Regional Conference on Peri-Urbanism, Sustainable Urban-Rural Futures, Invited Keynote Speaker, Hosted at School of Planning and Architecture Bhopal (SPA) in Bhopal, Madhya Pradesh, INDIA. Also chaired one of the conference sessions.

Academic, Professional, and Public Service

2020- RAIC/CCUSA Academic Summit 2021, Appointed as Steering Committee Member
2020- Faculty Advisor/Founder WOA(S) - Women of Architecture Sudbury
2020- “Future of Ontario Place”, National Student Ideas Competition, Faculty Advisor
2020- Sudbury 2050 International Ideas Competition Juror
2020- Invited Reviewer Final Thesis Reviews, UBC SALA.
2020- Informal Cities: CDMX Studio Mexico City, University of Cincinnati, Masters of Architecture, Invited Critic, Final and midterm.
2020- Laurentian University Faculty Senate, Faculty Senator Architecture
2018- Appointed by Mayor of Ottawa, Planning Advisory Committee
2018- Royal Architectural Institute, Member
2000- ACSA Member and Faculty Councilor (2018 - present)
2020- Building Technology Educators Society (BTES), Board Member, Liaison and Member
2018- ORSA (Ottawa Regional Society of Architects), Member

4.4 Current Faculty Resumes

Steven Beites, B.Comm., MArch, M.Sc (Arch), PhD Candidate
Assistant Professor

Date of Appointment: 2016
Area of Expertise: Digital Fabrication, Computation and Robotics

Recent Teaching Assignments

2020-2021	ARCH 3515 EL/FL: Coordinator, Design Studio 6 ARCH 5316 EL: Graduate Research Seminar ARCH 5306 EL: Fabrication 1 Thesis Supervision
2019-2020	ARCH 3505 EL/FL: Coordinator, Design Studio 5 ARCH 3515 EL/FL: Coordinator, Design Studio 6 ARCH 5316 EL: Graduate Research Seminar Thesis Supervision
2018-2019	ARCH 3515 EL/FL: Design Studio 6: Northern Building Studio II ARCH 5316 EL: Graduate Research Seminar ARCH 5306 EL: Fabrication 1 ARCH 5925: Co-operative 4 (Co-Instructor) ARCH 3906: Independent Study Thesis Supervision

Education

2020	PhD (in Progress), European Graduate School (EGS), Switzerland
2013	M.Sc (Arch), University of Michigan's Taubman College of Architecture and Urban Planning (Post Professional), Ann Arbor
2010	MArch, John H. Daniels Faculty of Architecture, Landscape and Design, University of Toronto
2005	Foundation Program, Southern California Institute of Architecture (SCI-Arc), Los Angeles
2001	B.Comm, Laurentian University, Sudbury

Teaching Experience

2016 - Pres.	Faculty, McEwen School of Architecture, Laurentian University, Sudbury 2016-2017 Studios 5 and 6, Architectural Communications 2017-2020 Studios 5 and 6, Research Seminar, Fabrication 1, Co-op, Thesis
2013 - 2016	Adjunct and Lecturer, Ryerson University, Department of Architectural Science, Toronto 2013-2016 Advanced Digital Design, Design Studio III, Research Seminar: Emerging Technologies
2014 - 2016	Lecturer, School of Interior Design, Toronto 2014-2016 Advanced Portfolio Presentation, Digital Fabrication
2014 - 2016	Lecturer, University of Waterloo, School of Architecture 2014-2016 Digital Manufacturing
2013 – 2015	Guest Instructor, Harvard Graduate School of Design (GSD), Cambridge 2013-2015 Landscape Architecture Design III: Indexing Topographies
2010 – 2012	Digital Fabrication Coordinator, John H. Daniels Faculty of Architecture, Landscape and Design University, University of Toronto

Recent Publications

2020 Berman I, El Khafif M, Del Signore M, Beites S. (2020). Chapter 4: Data + Urban Design, Urban Syncopation. Del Signore M, Diniz N, Melendez F. Data, Matter, Design: Strategies in Computational Design. Routledge, 2020. 1st Edition: Chapter 4. Forthcoming (Aug 31 2020)

2020 Beites, S., 'Performative Aesthetics: An Exploration into DLT-Ceramic Composite Wall Assemblies.', Proceedings of the 108th Association of Collegiate Schools of Architecture (ACSA) Annual Meeting, San Diego, California. 2020

2020 Beites, S., 'Droplet Pavilion.', Proceedings of the 108th Association of Collegiate Schools of Architecture (ACSA) Annual Meeting, San Diego, California. 2020

2018 Beites, Steven. Context Through Awareness, Atmosphere 10 Fabrications Symposium, Winnipeg, Manitoba, 2018.

2017 Beites, S., Berman, I., Khafif, M., Signore, M., 'Urban Syncopation', Proceedings of the 105th Association of Collegiate Schools of Architecture (ACSA) Annual Meeting, Detroit, Michigan, 2017, p.140-141.

Recent Scholarship, Research and Creative Activities

2020 Grant-funded Research - Autodesk: Northern Platforms - Digital fabrication and robotic methodologies specific to in-situ construction processes in the North. Collaboration with Bharti School of Engineering: $35,000 + Residency

2020 Grant-funded Research: SSHRC Insight Development Grant (Research-Creation): An Investigation into the Experiential Dimensions of the Built Environment. A theoretical and empirical investigation into the phenomenological and experiential dimensions of architecture through the lens of contemporary neuroscience, Amount: $75,000.

2020 Grant-funded Research: Laurentian University, Research Fund: Investigation into Fiber Reinforced Concrete and Stabilized Rammed Earth within an Advanced Manufacturing Framework: Amount: $5,000

Academic, Professional, and Public Service

2020 McEwen School of Architecture Graduate Coordinator
2016-Pres. Association of Collegiate Schools of Architecture (ACSA)
2020 Member of the International Scientific Committee (ACADIA)

4.4 Current Faculty Resumes

Aliki Economides, B.Arch, MArch, M.A., Ph.D.
Assistant Professor

Date of Appointment: 2018
Area of Expertise: Architecture, History & Theory of Architecture and Urbanism

Recent Teaching Assignments

2020-2021	ARCH 4505: Studio 7: Integrated Design I (Coordinator) ARCH 4515: Studio 8: Integrated Design II (Coordinator) ARCH 5316-03: Faculty Research Seminar MArch Thesis Advisor [students TBC]
2019-2020	ARCH 4505: Studio 7: Integrated Design I (Coordinator) ARCH 4515: Studio 8: Integrated Design II (Coordinator) ARCH 5316-02: Faculty Research Seminar Independent Study Supervisor: Josephine Li MArch Thesis Advisor: Trevor D'Orazio; Marina Schwellnus
2018-2019	ARCH 3515: Atelier 6: Bâtiment du nord II ARCH 5316-02: Faculty Research Seminar MArch Thesis Advisor: Kate Morawietz; Nathan Sorli

Education

2015	Doctor of Philosophy (Ph.D.) in History and Theory of Architecture, Harvard University
2007	Master of Arts (M.A., History of Science), Harvard University
2002	Master of Architecture (M. Arch., History & Theory) Post-Professional Degree, McGill
1997	Bachelor of Architecture (B.Arch.) Professional Degree, University of Toronto

Recent Teaching Experience

2018 - Pres.	Faculty, McEwen School of Architecture, Laurentian University, Sudbury
2017	Sessional Lecturer, McGill University, Montréal
2016-2017	Professeure invitée, Université de Montréal, Montréal
2016	Sessional Lecturer, Concordia University, Montréal
2015-2016	Tutrice au projet final de 2e cycle, Université de Montréal, Montréal

Recent Honours and Awards

2018	Society of Architectural Historians' George R. Collins Fellowship
2017	Society of Architectural Historians' Opler Grant for Membership for Emerging Scholars

Recent Publications

2020 Economides, Aliki. « Lecture commentée sur L'*Architecture iconique : les leçons de Toronto.* » Montréal : CIRM/CRIEM, 2020. https://www.mcgill.ca/centre-Montréal/fr/ressources/coin-lecture/architecture-iconique

2019 Economides, Aliki. "The Cormier Residence in Relief." In *The Routledge Companion to Art Deco*, edited by Bridget Elliott and Michael Windover, 39-66. New York: Routledge, 2019.

2017 Economides, Aliki et Colin MacWhirter. « L'autoroute Ville-Marie: vision monumentale et division sociale ». Dans *Vivre ensemble à Montréal: épreuves et convivialités*, sous la direction d'Annick Germain et al., 155-162. Montréal: Atelier 10, 2017.

Economides, Aliki. « L'Architecture, l'urbanisme, et le 'droit à la ville' ». Dans *Exposition architecture 2017.* Catalogue de l'exposition des finissants de la Maîtrise en architecture de l'Université de Montréal. Montréal: Université de Montréal, 2017.

Recent Scholarship, Research and Creative Activities

2020 Paul Carvalho and Aliki Economides. *Une Tour sur la Montagne : l'architecture d'Ernest Cormier et sa vie avec Clorinthe Perron.* Directed by Paul Carvalho. Montréal: Perception Films Inc. for ICI Radio-Canada Télé, 2020. DVD (52 mins).

2019-2022 Grant-funded Research: *Building Peace: 'International' Modern Architecture and the Communicative Monuments of Postwar Diplomacy*; Laurentian University Research Fund (LURF): $5,000

2019 Grant-funded Research (with Producer Paul Carvalho) for documentary film on Ernest Cormier; Rogers Documentary Fund.

Conference Paper: "Engagements with the Matter of the Berlin Wall" (with Kate Morawietz), 2019 Conference of the Universities Art Association of Canada, Québec City

2018 Grant (with Producer Paul Carvalho) for documentary film on Ernest Cormier Radio-Canada Production Contract, funded by Ici Radio in conjunction with the Canadian Film Fund.

Grant-funded Research on United Nations Headquarters, NY; Rockefeller Archive Center Research Grant: $2000 USD

Session Chair: "Cosmopolitanism, Citizenship, and the City (19th to 21st centuries)" European Association for Urban History (EAUH) International Conference, Helsinki

Grant-funded Research: "Skin, or, the Enveloping Tactics of Architectural Ornament," Society of Architectural Historians' George R. Collins Fellowship: $1000 USD

2017 Grant-funded Research (with Producer Paul Carvalho) for documentary film on Ernest Cormier; Radio-Canada Development Contract, funded by Ici Radio in conjunction with the Canadian Film Fund.

Conference Paper: « L'Autoroute Ville-Marie: entre vision monumentale et exclusion socio-spatiale », 85e Congrès de l'Association francophone pour le savoir (Acfas), Montréal

Academic, Professional, and Public Service

2020 Vettor for the Historic Sites and Monuments Board of Canada Review Board
2019 Presenter (with Jean-Philippe Saucier), "Building Strong Teamwork Dynamics" Workshop, Centre for Academic Excellence, Laurentian University
2019-2021 Membre du comité d'évaluation, Bourses de maîtrise et de doctorat en recherche, Fonds de recherche du Québec – Société et culture (FRQSC)
2018-2021 Associate Member, Centre for Interdisciplinary Research on Montréal (CIRM), McGill University

4.4 Current Faculty Resumes

David T. Fortin, B.A., MArch, Ph.D.,
OAA, SAA, Architect AAA, LEED AP
Associate Professor & Director

Date of Appointment: 2013
Area of Expertise: Architecture, Indigenous Design, Speculative Thinking in Architecture

Recent Teaching Assignments

2020-2021	ARCH 3505: Design Studio 5, Northern Building Thesis Advising
2019-2020	ARCH 5525: Indigenous Design ARCH 0300: Co-op 2 Thesis Advising
2018-2019	ARCH 3505: Design Studio 5, Northern Building ARCH 5925: Co-op 3 Thesis Advising

Education

2009	Doctor of Philosophy (Ph.D.) in Architecture, University of Edinburgh, UK
2001	Master of Architecture (M. Arch.) Professional Degree, University of Calgary
1997	Bachelor of Arts (B.A.), University of Saskatchewan

Teaching Experience

2018 - present	Associate Professor with tenure, McEwen School of Architecture, Laurentian University, Sudbury
2013 - 2018	Assistant Professor, McEwen School of Architecture, Laurentian University, Sudbury
2009 - 2013	Assistant Professor, Montana State University, Bozeman USA
2008 - 2009	Adjunct Assistant Professor, Montana State University, Bozeman USA
2005 - 2008	Design and Theory Tutor, University of Edinburgh, UK

Recent Honours and Awards

2018	Science North Partnership Award (acknowledged for contributions to partnership)

Recent Publications

2020 Smoke, Eladia, Fortin, David, and Dalla Costa, Wanda. "The Indigenous Peoples Space: Architecture as Narrative." *Our Voices 2: Decolonization and Architecture*. Eds. Kevin O'Brien, Rebecca Kiddle and luugigyoo patrick stewart. Oro: Novato. (forthcoming).

2020 Fortin, David. "From Indian to Indigenous Agency: Challenges and Opportunities for Architectural Design." In *Design and Agency: Critical perspectives on identities, histories, and practices*, edited by John Potvin and Marie-Eve Marchand, 243-258. London: Bloomsbury, 2020.

2018 Fortin, David T., Sukan, J, and Kastelein. "Métis domestic thresholds and the politics of imposed privacy." In *Our Voices: Indigeneity and Architecture*, edited by Rebecca Kiddle, luyigoogoo patrick stewart, and Kevin O'Brien, 76-85. Singapore: Oro Editions, 2018

2018 Fortin, David T. "Mixing it Up: Métis Design and Material Culture in the Canadian Conscious." *Handbook of Contemporary Indigenous Architecture*, edited by Elizabeth Grant, Kelly Greenop, Albert Rafiti and Daniel Glenn, 253-281. Singapore: Springer Nature, 2018

Recent Scholarship, Research and Creative Activities

2020 "One House Many Nations: A community-first approach to address homelessness amongst First Nation youth." Making the Shift Youth Homelessness Social Innovation Lab.
Role: Collaborator (Principle Investigator: Dr. Alex Wilson, University of Saskatchewan)
CDN$500,000.

2019 "Tracing the relationship between colonial land appropriation and contemporary urbanization in the Greater Golden Horseshoe and Paddle Prairie." Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, Federal Government of Canada.
Role: Co-applicant with Adrian Blackwell, University of Waterloo
CDN$74,895

2018 UNCEDED: Voices of the Land.
Canada Council for the Arts, Venice Biennale winning proposal.
Role: Co-curator with Gerald McMaster, OCADU. Presenter, Douglas Cardinal.
CDN$500,000

2014-2018 "(In)Formally Canadian: A diachronic analysis of prairie Métis approaches to architectural design" Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant. Federal Government of Canada.
Role: Principle Investigator
CDN$69,537

Academic, Professional, and Public Service

2018-present Principal Architect, David T Fortin Architect Inc.
2018- Registered Architect – RA 5908 - Ontario Association of Architects (OAA),
2007-18, 2020- Registered Architect - RA 2566 – Alberta Association of Architects (Architect, AAA)
2018, 2020- Registered Architect – RA 1090 - Saskatchewan Association of Architects (SAA)
2016- Royal Architectural Institute of Canada, Indigenous Task Force Member
2016-18 Royal Architectural Institute of Canada, Indigenous Task Force, Education Sub-committee
2018-present Associate Director, Maamwizing Indigenous Research Centre
2006 - Member of the Royal Architectural Institute of Canada (MRAIC)
2017 Invited Jury Member, Governor General Awards, Canada Council for the Arts

4.4 Current Faculty Resumes

Tammy Gaber, B.E.S, B.Arch, MSc, Ph.D.
Associate Professor

Date of Appointment: 2013
Area of Expertise: Architecture

Recent Teaching Assignments

2020-2021	Sabbatical Invited Scholar, Center for Theological Inquiry, Princeton University.
2019-2020	ARCH 2505: Design Studio III ARCH 1007: Sacred Places Graduate Coordinator, MSoA
2018-2019	ARCH 5505: Architecture and Craft Graduate Studio ARCH 1007: Sacred Places ARCH 2515: Design Studio IV Graduate Coordinator

Education

2007	Doctor of Philosophy (Ph.D.) in Architecture, Cairo University, Egypt.
2004	Master of Architecture Engineering (MSc.), Cairo University, Egypt.
1999	Bachelor of Architecture, Professional (B.Arch). University of Waterloo, Canada.
1996	Bachelor of Environmental Studies, Pre-Professional (B.E.S). University of Waterloo, Canada.

Teaching Experience

2018 - current	Associate Professor, with Tenure, McEwen School of Architecture, Laurentian University, Sudbury
2013 - 2018	Assistant Professor, McEwen School of Architecture, Laurentian University, Sudbury
2011 -2013	Adjunct Professor, University of Waterloo, School of Architecture, Cambridge.
2008 -2011	Assistant Professor, British University in Egypt, Department of Architecture, Cairo.
2008 – 2011	Adjunct Professor, American University in Cairo, Faculty of Performing and Visual Arts, Cairo.
2007 – 2008	Assistant Professor, Misr International University, Department of Architecture, Cairo.
2000 – 2007	Lecturer, Misr International University, Department of Architecture, Cairo.

Recent Honours and Awards

2020	LAURENTIAN UNIVERSITY TEACHING EXCELLENCE AWARD FOR FULL-TIME FACULTY Recipient of this annual award, with research stipend
2019	WOMEN WHO INSPIRE AWARD. CANADIAN COUNCIL OF MUSLIM WOMEN. Biennial award to six leading women in the country, Toronto.
2018	LAURENTIAN UNIVERSITY RESEARCH INNOVATION AWARD 2017 “Room Sometimes with a View” Ranked among top ten research projects from the University.

Recent Publications

2021 Gaber, T. Beyond the Divide, *A Century of Canadian Mosque Design and Gender Allocation*. McGill-Queen's University Press. Forthcoming.

2021 Gaber, T. "Egyptian Pioneers and Trailblazers," *Global Encyclopedia of Women in Architecture 1960-2015*. Lori Brown, Karen Burns, Eds. Bloomsbury Publishing. Forthcoming.

2020 Gaber, T. and T. Strickland "Breathing Grids". *The Site Magazine*. Forthcoming.

2019 Gaber, T. "Continuity of the Sacred in Architecture Pedagogy" *ACS9 2019 Architecture, Culture and Spiritualty Symposium*. Conference at Taliesin West, Arizona, May 2019.

2019 Gaber, T. "A Question of Presence and Agency: Mosques in the West, North and South." (Review Essay). *American Journal for Islamic Social Sciences*. Volume 36, Issue 4 (89-99).

2018 Gaber, T. "Designing for the Sub Arctic Sacred" *Faith and Form*. Vol.51 No.2 (6-11).

Research Grants

2020 Full-time Professor Teaching Excellence Award
Laurentian University Faculty Teaching Excellence Award Research Fund Grant 15, 000 CDN$

2020 "Beyond the Divide A Century of Canadian Mosque Design"
Laurentian University Faculty Research Fund Grant (LURF) Publication Subvention 4,250 CDN$

2019 "Cosmic Ordering of Sub-Tropic of Capricorn Mosques"
Laurentian University Faculty Research Fund Grant (LURF) 4,994 CDN$

Academic, Professional, and Public Service

2020-2021 Association of Collegiate Schools of Architecture (ACSA)
Reviews Committee 109th Conference in St. Louis
Review and organization of annual conference

2020 ONTARIO ASSOCIATION OF ARCHITECTS (OAA)
2020 OAA Awards Design Excellence Adjudication Committee member
Review and awarding of the highest award in the province for architectural excellence

2019-present ARCHNET-IJAR INTERNATIONAL JOURNAL of ARCHITECTURAL RESEARCH
Regional Editor – North America
Peer review of content proposals and of full research paper submissions

2018-present ARCHNET-IJAR INTERNATIONAL JOURNAL of ARCHITECTURAL RESEARCH
Paper (Blind) Reviewer
Peer review of full research paper submissions

4.4 Current Faculty Resumes

Terrance Galvin, BEDS, MArch, MArch (post-prof.),Ph.D.
Professor & Founding Director

Date of Appointment: 2012
Area of Expertise: Design, Architectural Histories and Theory, Canadian Architecture

Recent Teaching Assignments

2020-2021	ARCH 1006: Design Thinking ARCH 2036: Canadian Art & Architecture ARCH 5565: Thesis 2 (Design Studio)
2019-2020	ARCH 1006: Design Thinking ARCH 2036: Canadian Art & Architecture ARCH 5565: Thesis 2 (Design Studio)
2018-2019	ARCH 2036: Canadian Art & Architecture ARCH 5565: Thesis 2 (Design Studio) *(Fall 2018 – half-year sabbatical)*

Education

2003	Doctor of Philosophy (Ph.D.) in Architecture, University of Pennsylvania (Graduate School of Fine Arts), PENN (Philadelphia)
1990	Master of Architecture (M. Arch.) Post-Professional Degree in History & Theory, McGill University (Montréal)
1987	Master of Architecture (M. Arch.) Professional Degree, Technical University of Nova Scotia (Halifax)
1985	Bachelor of Environmental Design Studies (BEDS), Technical University of Nova Scotia (Halifax)

Teaching Experience

2012 - Pres.	Faculty, McEwen School of Architecture, Laurentian University, Sudbury
2007-2010	Director, School of Architecture, Dalhousie University (Halifax)
2006 - 2010	Associate Professor, with Tenure, Dalhousie University, Halifax
2001 - 2006	Assistant Professor, Dalhousie University, Halifax
1998-2001	Research Associate, Minimum Cost Housing Group, McGill University (Montréal)
1989-1994	Adjunct Professor (contract), School of Architecture, McGill University (Montréal)

Recent Honours and Awards

2019	*Rotary Club of Sudbury*. Recipient of International “Paul Harris Fellow” Award for service above self for implementing the McEwen School of Architecture at LU.

Recent Publications

2020 Elsa Lam and Graham Livesey (editors). *Canadian Modern Architecture*. "McEwen School of Architecture curriculum diagram." New York: Princeton Press, 2019. p.152.

2017 Hastings, Sasha (editor). *Building a northern design culture: The creation of the McEwen School of Architecture. Pour une culture de conception proper au nord: la creation de l'École d'architecture McEwen*. "Crafting the Curriculum" (pp.62-94) and "Reflections" (pp.150-153). Sudbury: Prise de Parole, 2017.

2017 "Foreword" in the *Earth Builder's Narrative*: Ann Beam and Carl Beam's Adobe House, on Manitoulin Island. Manitoulin: Neo Raven Art Gallery, 2017. pp. 2-3.

Recent Scholarship, Research and Creative Activities

2020 Submitted a *SSHRC Partnership Grant* (PG) Phase 1 for "The Atlas of Research for Excellence in Architecture" (AREA) with 20 partners in industry and in universities across Canada. Dr. JP Chupin is the PI for the SSHRC PG.

2019 Invited co-researcher with Dr. Jean-Pierre Chupin to collaborate on his Canada Research Chair (CRC) "Atlas of Excellence in Architecture" (AEA). Ongoing.

2019 "Embodied Design Theory, Indigenous Cosmologies and the Creation of Place."
Architectural Theory Now? Conference held at University of Pennsylvania (April 4-6), PENN Weitzman School of DESIGN, Philadelphia, USA.

2019 Collaborated with Bruce Mau and Freeman on the design concept of the Canada Pavilion for Expo 2020 in Dubai (with David Fortin, Randall Kober, & Will Morin).

2018 "Downtown Sudbury Master Plan." *Ontario Professional Planners Institute (OPPI) Symposium.* Panel discussion participant with City of Greater Sudbury and Urban Strategies on the Sudbury Master Plan for Downtown. Held at the MSoA.

Academic, Professional, and Public Service

2020 Professional Advisor (with Blaine Nicholls), "*Sudbury2050.ca* Urban Design Ideas Competition", Sudbury, ON
2020 Evaluator, Book on contemporary sustainability, Vernon Publishing.
2020 Evaluator, Carleton University, Full-Professor application (Architecture)
2019 External Reviewer, SSHRC Canada Research Chair (CRC) and CIF application
2019 OAA "SHIFT 2019 Infrastructure/Architecture Challenge" – invited jury member
2018-present Chair, McEwen International Advisory Board (MSoA), Laurentian University
2018-present CACB 'Research Initiatives Task Force' (ongoing Member)
2017 Franco-Ontarian Ministry (FOMAC) for sculpture at Queen's Park – invited jury member
2017-18 OAA Task Force - new prize for innovation called "Challenge Award."
2017-18 Indie Cinema Board Member, Sudbury ON
2017 RAIC "Moriyama RAIC Student Scholarship" essay prize. – invited jury member
2017 External Examiner, Ph.D. Defense, Université de Montréal (École d'Architecture)
2017-18 President, Canadian Architectural Certification Board (CACB)
2016-17 Vice-President, Canadian Architectural Certification Board (CACB)
2015-18 Canadian Architectural Certification Board (CACB), Board of Directors

4.4 Current Faculty Resumes

Patrick Harrop, B.Arch (prof), MArch (P-prof), MOAQ
Associate Professor

Date of Appointment: 2015
Area of Expertise: Design, Theory of Technology, Digital / Electronic Art, Digital Fabrication

Recent Teaching Assignments

2020-2021	ARCH 5555 EL/FL 01: Thesis: Studio 1/Thèse 1 ARCH 4306 EL 01: Digital Fabrication ARCH 2515 FL 01: Atelier de conception 4: Paysage II
2019-2020	ARCH 5555 EL/FL 01: Thesis: Studio 1/Thèse 1 ARCH 4306 EL 01: Digital Fabrication ARCH 5316 EL 01: Faculty Research Seminar ARCH 5915 EL/FL 01: Cooperative Term 3
2018-2019	ARCH 5555 EL/FL 01: Thesis: Studio 1/Thèse 1 ARCH 4306 EL 01: Digital Fabrication ARCH 5316 EL 01: Faculty Research Seminar ARCH 5915 EL/FL 01: Cooperative Term 3

Education

1992	MArch (post professional) History & Theory, McGill University
1986	B.Arch (professional), Carleton University

Teaching Experience

2015 - Pres.	Faculty, McEwen School of Architecture, Laurentian University, Sudbury
1999 - 2015.	University of Manitoba, Faculty of Architecture (Manitoba, Winnipeg)

Recent Publications (select)

2019	Patrick Harrop, Simon Doucet, Stephen Verderber: *The Design/Build Exchange as Knowledge Transference* in Thinking While Doing: Explorations in Educational Design/Build, Stephen Verderber, Ted Cavanaugh, Arlene Oak ed. Birkhauser, Basel (2019). pps. 249 - 263
2020	Patrick Harrop, *The immanence of oscillatory collapse: reflections on tweaking vortical filament* in: The Philosophy of Dumbness, ed. Choma, Joseph. ORO Architectural Editions: San Francisco, New York and Singapore: Fall 2020 (in press)
2018	Patrick Harrop and Marie Pier Boucher: *Alien Media : An Interview with Rafael Lozano-Hemmer.* Reprints and translations of original interview for Inflexions 5, “Simondon: Milieu, techniques, aesthetics”, March 2012, p. 148-159, <www.inflexions.org>. in Lumières de la ville, ed Louise Poissant, Presses universitaires du Québec. *And in:* in Latin American Modernisms and Technology, ed Maria Fernandez, Africa World Press, inc. Trenton, N.J

Recent Scholarship, Research and Creative Activities (select)

2020 La Brume du Paysage: An aesthetic investigation of Anthropocene in the industrial landscapes of Northern Ontario. Research / Creation: Sound, Video and fabrication work.

2015 – 2018 "Thinking While Doing: Connecting Insight to Innovations in the Construction Sector" - International Research/Creation and scholarship project examining and engaging with Design/Build practices. Specific role: Open Sourced digital fabrication collectives, techniques and networks. Collaborator and Co research in several grants. Dr. Edwin Cavanagh (PI) (Dalhousie)

2018 Installation light and material installation: *FAAS #6.* Oct 2018

2018 *Ecran tiree:* Installation (mock up for *Parmi Les Eclats*) and live sound: *Nuit Blanche Sudbury.* Jan 2018

2018 *Ondes Simultanee et Pertuber*: Sound piece for RWM interruptions, sound project, Barcelona, online playlist: https://rwm.macba.cat/en/curatorial/wave-farm-interruptions-soundworks-only/capsula, May 1 2018, RWM interruptions, sound project, Barcelona, June 2017, Short Waves / Long Distance, festival, Miami / New York, March 2, 2017

2018 *Parmi les Eclats:* Video projection and set design / construction for a production for Theatre de Nouvel Ontario. March 2 to 10, 2018

2018 *Sol et Sous-Sols:* A live video performance in collaboration with both Robert Lemay (Department of Music, Laurentian) and Thierry Dimanche (Literature, laurentian) and SNOLAB held at the Theatre Nouvel Ontario, March 17.

2017 *Environement scénographique: Radha Chaddah et Patrick Harrop* Les fenêtres de la creation, Longueuil, QC

2017 Zone Théâtrale : Centre Nationale des Arts, Ottawa, Ontario. *Parmi les Éclat's* (Zone Labo). Set and Projection design.

Academic, Professional, and Public Service (select)

University

2020-2022 LUFA Board member
2019-2020 Laurentian University : Selection Committee for the Dean of SEA (Science Engineering and Technology)
2018-2019 Laurentian University : Group 26 : Strategic Plan implimentation committee : member
2016-2017 Laurentian University: Selection Committee for the Dean of the Faculty of Health. Member

Departmental

2018-2020 Faculty success, Making, Administration, Governance / Constitution (Chair)
2015 - Tenure and Promotion
2016, 17, Faculty search committee

External

2020 ISEA 2020 (International Symposium of Electronic Arts) jury and paper reviewer.
2018, 2020 FRQSC: Fonds de recherche du Québec - Société et culture: Jury for projets en Recherche/Creation.
2018 Selection committee and jury for public art competition for "Place des Arts", Sudbury, Ontario.
2018 External reviewer for Ryerson University, Department of Architecture, Periodic Program Review.
2017 Tenure and Promotion External Reviewer: Professor Shannon Collis, University of Maryland
2017 Member of Administration Committee Perte de Signal, Centre d'artistes.

4.4 Current Faculty Resumes

Randall Kober, B.A., MArch
Master Lecturer

Date of Appointment: 2013
Area of Expertise: Architecture, Wood, Making, Building, History

Recent Teaching Assignments

2020-2021	ARCH 2316: Structures 1: Wood ARCH 4006: Building Case Studies ARCH 5326: Fabrication 2 ARCH 5505: Studio 9: Architecture & Craft ARCH 5915: Co-operative Term 3 ARCH 5925: Co-operative Term 4
2019-2020	ARCH 2316: Structures 1: Wood ARCH 4006: Building Case Studies ARCH 5326: Fabrication 2 ARCH 5505: Studio 9: Architecture & Craft Thesis, Supervisor: Hamza Adenali Thesis, Supervisor: Alexander Klein Gunnewiek Thesis, Second Reader: Jordan Feldberg
2018-2019	ARCH 0100: Co-operative Term 1 ARCH 2316: Structures 1: Wood ARCH 2505: Design Studio 3: Landscape 1 ARCH 2515: Design Studio 4: Landscape 2 ARCH 4006: Building Case Studies ARCH 5326: Fabrication 2 Non instructional: Germany Travel-Study Project Thesis, Supervisor: Anastasia Renaud Thesis, Supervisor: Theodore Wong Thesis, Second Reader: Marc Bartolucci Thesis, Second Reader: Katherine Morawietz Thesis, Second Reader: Christopher Warner-Smith

Education

1995	Master of Architecture (M. Arch.) Professional Degree, University of Illinois at Chicago
1986	Bachelor of Arts (B.A.) History, University of Wisconsin- Madison

Teaching Experience

2013 - Pres.	Faculty, McEwen School of Architecture, Laurentian University, Sudbury
2004 - 2008	Visiting Assistant Professor, Illinois Institute of Technology
2004-2007	Facilitator, Archeworks, Chicago
2000 - 2004	Adjunct Assistant Professor, University of Illinois at Chicago

Recent Honours and Awards

2019 ACSA Here + Now 2019, housing competition, 2nd place: A Millennial Housing type, thesis student project of Theodore Wong, faculty advisor

2017 Middle Franconia Historic Preservation Award, renovation and restoration of ensemble at Kapuzinerweg 9, Dinkelsbühl, Germany

2016 Bergen International Wood Festival, Laurentian students awarded 1st place, accompanying consulting timber construction expert

Recent Publications

2020 Preparation of Introduction to Wood Design for Architects as a national text book for the Canadian Wood Council, project initiator and lead

2017 Building community on frozen lakes, Architecture Connects Conference of the Association of Architecture Educators Proceedings, Oxford Brookes University, England

2016 Teaching structures 1: wood, hands on in Northern Ontario, World Conference on Timber Engineering Proceedings, TU Verlag, Vienna, Austria

2014 Research terrain; text, 2d, 3d ,4d, 1:1. Working Out: Thinking While Building: Project Proceedings, Halifax

Recent Scholarship, Research and Creative Activities

2019 International Wood Educators Conference, two day event at Laurentlan University, chair, funded by FedNor, Canadian Wood Council, Wood Works Ontario, & Mass Timber Institute

2019 Changing Typologies is Canadian Wood Construction, Keynote address at Wood Science Economy, International Scientific Conference, Poznań, Poland, October 21st, 2019

2018 MTI: EU fundamentals, Mass Timber Influencers, Toronto, Canada

2018 New Canadian Timber Building Typologies: evolving construction materials and methods, research organizations, and government regulations, KOOPDREW Poznań, Poland

2016 Design Build Experiments on Ice, Bergen International Wood Festival, Bergen, Norway,

2016 Structures 1: Wood, Hands on in Northern Ontario, Canadian Wood Council National Educators Conference, Ottawa, Canada

Academic, Professional, and Public Service

2016-present Canadian Wood Council, Architecture Academia Advisor to the Board
2016-present Canadian Wood Council, Wood Works National Advisory Committee, June 201-present
2018-present Wood Design and Building, quarterly magazine published by the Canadian Wood Council, Editorial Board Member

4.4 Current Faculty Resumes

Kai Wood Mah, Ph.D, MOAQ
Associate Professor

Date of Appointment: 2013
Area of Expertise: Architecture

Recent Teaching Assignments

2020-2021	ARCH 2515: Studio 4 - Landscape ARCH 2326: Architecture and Ecology ARCH 5155: Graduate Studio - Community Building
2019-2020	ARCH 2515: Studio 4 - Landscape ARCH 2326: Architecture and Ecology ARCH 5155: Graduate Studio - Community Building
2018-2019	ARCH 2505: Studio 3 - Landscape ARCH 2515: Studio 4 - Landscape ARCH 2326: Architecture and Ecology

Education

2009	PhD, Architecture, McGill University.
2003	MA, East Asian Studies. McGill University.
1995	B Arch, Professional. McGill University.
1993	BSc, Architecture. McGill University.

Teaching Experience

2012 - Pres.	Associate Professor, McEwen School of Architecture, Laurentian University, Sudbury
2007 - 2013	Assistant Professor, The School of the Art Institute of Chicago, Chicago
2006 - 2007	Visiting Lecturer, Dalhousie University, Halifax

Recent Publications

2020	“Spatializing the Curriculum” (with Emily Ashton and Patrick Lynn Rivers). Journal of Curriculum Studies 52, 2 (2020): 177-194.
2018	“Economies of Humanitarian Architectural Practice” (with Patrick Lynn Rivers). Interventions: International Journal of Postcolonial Studies 20, 4 (2018): 510-528.
2018	“Philosopher Children Moving through Spacetime” (with Patrick Lynn Rivers). In Joanna Haynes and Karin Murris, eds., Literacies, Literature and Learning: Reading Classrooms Differently (Contesting Childhood Series. New York: Routledge, 2018, 187-203.
2017	“Le campus urbain comme espace postcolonial” (with Patrick Lynn Rivers). In Magali Uhl and Sofia Eliza Bouratsis, eds., Penser creer l’urbain. Montréal: UQAM, 2017, 143-147
2016	“Refugee Housing without Exception” (with Patrick Lynn Rivers). Space and Culture 19, 4 (2016): 390-405.
2015	“Children, Medicine and the Built Environment of Early Twentieth-Century Toronto”. Children, Youth and Environments 25, 3 (2015): 90-108.

2013 "Negotiating Difference in Post-apartheid Housing Design" (with Patrick Lynn Rivers). African Identities: Journal of Economics, Culture and Society 11, 3 (2013): 290-303.

2010 "Young Gardeners: On Gardens as Spaces of Experiential Pedagogy." Public 41 (2010): 98-107.

2010 "Theorizing Canadian Blackness: Moments, Place and Cultural Production of the Black Diaspora." In Charmaine Nelson ed., Ebony Roots & Northern Soil. Newcastle upon Tyne: Cambridge Scholars Press, 2010, 121-140.

2009 "Children and School Interiors: The User-Material Culture-Environment Nexus." In Loren R. Lerner ed., Depicting Canada's Children, Waterloo: Wilfrid Laurier University Press, 2009, 305-325.

2007 "Classified Landscapes of Education: The Ontario Educational Exhibit of 1876," Visual Studies 22 (2007): 74-84.

2006 "Reconstructing Blackness: Fanny Jackson Coppin and the Institute for Colored Youth." In Hanna Wallinger, ed., Transitions: Race, Culture, and the Dynamics of Change, Vienna: Lit Verlag, 2006, 159-174.

Recent Scholarship, Research and Creative Activities

2020 "Dynamic Referrals for Greater Toronto Area Refugee Youth" (with Patrick Lynn Rivers and David Roberts). Partnership Engagement Grant, Social Science and Humanities Research Council (SSHRC). CA$24,974. June 2020-May 2021.

2019 "Housing Unaccompanied and Separated Refugee Minors in Toronto" (with Patrick Lynn Rivers and David Roberts). Community Partnership Research Program, University of Toronto. CA$135,638. January 2019-December 2021.

2018 "Decolonizing Early Childhood Discourses" (Co-Investigator with Karin Murris, University of Cape Town, as PI). National Research Fund of South Africa. ZAR1,783,860. January 2016-January 2018.

2016 "Democratic Early Childhood Development" (with Patrick Lynn Rivers). Insight Development Grant, Social Science and Humanities Research Council (SSHRC). CA$74,728. September 2016-August 2019.

Academic, Professional, and Public Service

2009 - pres. Order of Architects of Quebec, Registered architect.
2018 - pres. Kai Wood Mah Architecte, Montréal, Quebec.
2014 - pres. Afield, Co-director.

4.4 Current Faculty Resumes

Émilie Pinard, B.Sc.Arch, MArch, M.Sc.Arch, Ph.D.
Professeure Adjointe

Date of Appointment: 2016
Area of Expertise: Architecture, recherche-action collaborative, rapports de genre, habitation, architecture vernaculaire

Recent Teaching Assignments

2020-2021	ARCH 4016 : Cultural Sustainability ARCH 3505 : Atelier 5: Bâtiment du Nord (coordonnatrice) ARCH 3515 : Atelier 6: Bâtiment du Nord II Supervision de thèses
2019-2020	ARCH 4016 : Cultural Sustainability ARCH 5515 : Atelier Bâtiment Communautaire ARCH 3515 : Atelier 6: Bâtiment du Nord II Supervision de thèses
2018-2019	ARCH 4016 : Cultural Sustainability ARCH 5515 : Atelier Bâtiment Communautaire Supervision de thèses

Education

2014	Doctorat en architecture et anthropologie (PhD), Université Laval
2010	Maîtrise en sciences de l'architecture (M.Sc.Arch), Université Laval
2009	Maîtrise en architecture (MArch), Université Laval
2006	Baccalauréat en architecture (B.Sc.Arch), Université Laval

Teaching Experience

2016 - auj.	Professeure adjointe, McEwen School of Architecture, Laurentian University, Sudbury
2015 - 2016	Chargée de cours, Faculdade de Arquitectura e Planeamento Físico, Universidade Eduardo Mondlane, Maputo, Mozambique
2011 - 2014	Chargée de cours, École d'architecture, Université Laval

Recent Honours and Awards

2019	#1 du top 10 des réussites en recherche et innovation de l'Université Laurentienne (2018)

Recent Publications

Sous presse Pinard, E. Senegal and Mali. In Brown, L et Burns, K. (eds.) The Bloomsbury Global Encyclopedia of Women in Architecture. Londres: Bloomsbury.

Sous presse Pinard, E. The consolidation of 'traditional villages' in Pikine, Senegal: Negotiating legitimacy, control and access to peri-urban land. Special Issue "Urban Chieftaincy in African Cities", African Studies.

2019 Piché, D. et Pinard, E. (2019) Genre, villes et développement : regard sur l'Afrique subsaharienne. In Levy, C. et Martinez, A. (eds.) Genre, féminismes et développement – une trilogie en construction, Ottawa: Presses de l'Université d'Ottawa, 367-92.

2017 Vachon, G., Pinard, E., Blais, M., André-Lescop, G. et Rock, C. (2017) Vers des visions partagées. Des outils visuels pour l'aménagement durable des communautés innues de la Côte-Nord. Recherches amérindiennes au Québec, 48(1): 121-136.

Recent Scholarship, Research and Creative Activities

2020- "Chaire UNESCO pour la conception et la construction d'écoles solidaires et durables"
Office of the Vice-President Research, Laurentian University (CDN$30,000)
Fonds de recherche du Québec (FRQ) (CDN$45,000)
Role : Co-titulaire (avec André Casault, Université Laval)

2020 "Running out of time: Setting the pace for future generations". 26th Conference of the International Association People-Environment Studies (www.iaps2020.com) 21-26 juin.
Role: Co-présidente (avec Carole Després, Denise Piché et Sébastien Lord)

2019- "Doing things differently: An atlas of best practices and opportunities for culturally acceptable and sustainable living environments in Nunavik "
Projet - Sentinelle Nord (CDN$469,590)
Role: Collaborator (Co-directors : Geneviève Vachon and Michel Allard, Université Laval)

2018- "Construire sur les traditions : savoir-faire et innovation dans l'architecture vernaculaire, Sénégal et Guinée-Bissau"
Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant. Federal Government of Canada (CDN$74,071)
Laurentian University Faculty Research Fund Grant (LURF) (CDN$5,000)

2018-2020 Apprendre du territoire : conception en collaborative d'un centre de la transmission de la culture innue
SSHRC Partnership Engage Grant. Federal Government of Canada (CDN$24,493)

2015-2020 "Habiter le Nord québécois : Mobiliser, comprendre, imaginer"
Social Sciences and Humanities Research Council (SSHRC) Partnership Engage Grant. Federal Government of Canada. (CDN$2,046,176)
Role: Co-researcher (Director: Geneviève Vachon, Université Laval)

Academic, Professional, and Public Service

2020 Comité d'évaluation, Subventions Développement Savoir CRSH (2019-20)
2018 - Secrétaire, ACFAS-Sudbury
2016 - Membre, Association of Collegiate Schools of Architecture (ACSA)
2010 - Membre, International Association People-Environment Studies

4.4 Current Faculty Resumes

Jean-Philippe Saucier, B.Sc.Arch., MArch.
Maître de conférence

Date de nomination: 2017 (Professeur adjoint) / 2020 (Maître de conférence)
Domaine d'expertise: Architecture, science du bâtiment, enveloppe, développement durable, énergie et confort, design passif, simulation

Affectations d'enseignement récentes

2020-2021
ARCH 1505: Atelier 1: Lieu
ARCH 1515: Atelier 2: Lieu II
ARCH 2306: Design for Climate Change
ARCH 4316: Structures 3: Building Systems
Directeur de thèse: (non-déterminé)

2019-2020
ARCH 4505: Atelier 7: Design Complet
ARCH 4515: Atelier 8: Design Complet II
ARCH 2306: Design for Climate Change
Directeur de thèse: Emilie Renaud / Benoît Lachapelle

2018-2019
ARCH 4505: Design Studio 7: Integrated Design (coordonnateur)
ARCH 4515: Design Studio 8: Integrated Design II (coordonnateur)
ARCH 2306: Design for Climate Change
Directeur de thèse: Julien Vachon

Éducation

2009 Maîtrise professionnelle en architecture (MArch.), Université Laval

2005 Baccalauréat en sciences de l'architecture (B.Sc.Arch.), Profil international, Univ. Laval

Expérience d'enseignement

2016 - 2017. Chargé de cours, Université Laurentienne (ARCH-2505, ARCH-2515)

2015 - 2016 Formateur, Centre de formation en développement durable de l'Université Laval

2013 - 2016 Chargé de cours, Université Laval (ARC-2006, ARC-2003)

2012 - 2013 Contributeur invité, Technologie de l'architecture, Collège Montmorency (221-2A3-MO)

2010 - 2012 Contributeur invité, École d'architecture, Université Laval (ARC-2006)

2009 - 2010 Formateur, Ordre des architectes du Québec

2009 Auxiliaire d'enseignement, Université Laval

Récentes distinctions et prix

2018 Prix d'excellence du Canadian Council for Advancement of Education - Argent (Meilleure initiative de relations avec les donateurs) - Prix décerné à la Fondation de l'Université Laval pour l'œuvre 2 367 l'Odyssée Collective (réalisée par PLUX.5)

2017 Les Mérites d'Architecture (ax-aequo) – Volet œuvre d'art - Prix décerné par la Ville de Québec au projet 2 367, l'Odyssée Collective (conception PLUX.5, réalisation AU Dorure et Bétons Préfabriqués du Lac)

2016 Lauréat sur concours- Œuvre commémorative de la Grande campagne «Laisser une empreinte durable, 350 ans d'excellence» pour La Fondation de l'Université Laval - Réalisation de l'œuvre 2367, l'Odyssée collective Réalisation en tant que PLUX.5

2015 Bourse du Conseil des arts et des lettres du Québec (CALQ) - Bourse de déplacement pour la réalisation de l'installation architecturale TETRA-MAGIQUE, Montpellier, France

2011 Bourse du Conseil des arts et des lettres du Québec (CALQ) - Bourse de déplacement pour la réalisation de l'installation architecturale Ma cour dans ta cour, Montpellier, France

2011 Prix du public - Ma cour dans ta cour - Installation architecturale présentée au Festival des architectures vives, Montpellier, France

2011 Lauréat sur concours - Festival des architectures vives (Montpellier, France) - Réalisation de l'installation architecturale Ma cour dans ta cour - Réalisation en tant que PLUX.5

2007 Lauréat sur concours - Jardins Éphémères, Société du 400e anniversaire de Québec (Québec, Canada) - Catégorie relève de Québec : réalisation de l'installation architecturale La Boîte d'AntiPandore - Réalisé en partenariat avec D. Brassard

Publications récentes

2009 Saucier, JP. & Dubois, MC. (2009) Retrofit of bungalow houses in Quebec to improve energy efficiency and thermal comfort. PLEA (Passive and Low Energy Architecture) 2009: Architecture, Energy and the Occupant's Perspective. Québec : Les Presses de l'Université Laval. Actes de conférence

Service public, universitaire et professionnel

2010 – Prés. Membre co-fondateur du collective de création architecturale PLUX.5
Réalisation des œuvres :
- 2367, l'Odyssée collective - Oeuvre d'art commémorative de la Grande campagne « Laisser une empreinte durable, 350 ans d'excellence». Œuvre permanente, installée au cœur du campus de l'Université Laval.
- TETRA-MAGIQUE - Festival des architectures vives, Montpellier, France (2015).
- Piscine hors-terre - Passages insolites, Québec, Canada (2014). Installation architecturale réalisée en partenariat avec le Collectif de La Fourchette
- Tisse Métis Égal - Métis-sur-Montréal, Montréal, Canada (2012). Installation architecturale commémorant le 50e anniversaire de l'ouverture au public des Jardins de Métis et le 150e anniversaire de la création de la Société de numismatique de Montréal, fondatrice du Château Ramezay - Musée et site historique de Montréal.
- Ma cour dans ta cour - Festival des architectures vives, Montpellier, France (2011). Installation architecturale lauréate du Prix du public.

2019 Inscription au table de l'Ordre des Architectes du Québec

4.4 Current Faculty Resumes

KaaSheGaaBaaWeak
Eladia Smoke, B.E.D., MArch (prof), OAA, MAA
Master Lecturer

Date of Appointment: 2016
Area of Expertise: Indigenous Design, Architectural Practice

Recent Teaching Assignments

2020-2021	ARCH 2505: Studio 3: Landscape ARCH 3006: Indigenous Precedents ARCH 5906: Professional Practice
2019-2020	ARCH 2505: Studio 3: Landscape ARCH 2515: Studio 4: Landscape II ARCH 3006: Indigenous Precedents ARCH 5906: Professional Practice ARCH 5925: Co-op 4
2018-2019	ARCH 2505: Studio 3: Landscape ARCH 2515: Studio 4: Landscape II ARCH 3006: Indigenous Precedents ARCH 3906: Independent Study ARCH 5906: Professional Practice

Education

2008	Master of Architecture (MArch), University of Manitoba
2003	Bachelor of Enviornmental Design (BED.), University of Manitoba

Teaching Experience

2016 - Pres.	McEwen School of Architecture, Laurentian University, Sudbury

Recent Publications (select refereed)

2020	Smoke, Eladia, Fortin, David, and Dalla Costa, Wanda. “The Indigenous Peoples Space: Architecture as Narrative.” Our Voices 2: Decolonization and Architecture. Eds. Kevin O’Brien, Rebecca Kiddle and luugigyoo patrick stewart. Oro: Novato. (forthcoming).
2016	Stewart, Patrick, and Eladia Smoke. “Privileging Indigenous Knowledges.” Plan Canada, Special Edition.
2013	Smoke, Eladia. “How Liple Bears Defied the Odds” Winnipeg Free Press: Sept 29.

Recent Scholarship, Research and Creative Activities (select)

2018	UNCEDED: Voices of the Land. Canada’s official entry to the Venice Biennale. Team Member
2014	Urban Shaman Gallery of Contemporary Aboriginal Art: “Maandaw ‘Igaan Mazinibii’igan” Showcase of Aboriginal Architecture. Coordinator & contributor.

Academic, Professional, and Public Service (select)

Professional

2014-present	Smoke Architecture Inc., Principal Architect
2015-2016	Architecture 49, Thunder Bay ON Title: Architect
2003-2014	Prairie Architects, Winnipeg MB Titles: Architectural Intern,
2002	Harry Miller Designs, Santa Fe NM Title: Designer

University

2017	MSoA Director Search Committee - Chair
2017	MSoA Definition of Scholarly Activity for Tenure Committee
2016-present	MSoA Community Outreach: guest Elders, on-site visits to local First Nations,
2017-2018	MSoA Coordinator for 2nd-year Design Studio (ARCH 2505 & ARCH 2515) (with Jennifer Harvey)
2017-present	Laurentian University: Maamwizing Research Institute (member)
2017-present	MSoA Indigenous Content Committee

4.4 Current Faculty Resumes

Thomas Strickland, B.Arch (prof), MArch (prof), MArch (P-prof), PhD.
Assistant Professor

Date of Appointment: 2015
Area of Expertise: Design, History and Theory of Architecture, Material Culture, History of Medicine.

Recent Teaching Assignments

2020-2021	ARCH 5515: Studio 9: Community building (Option B) ARCH 5086: Material Culture ARCH 3515: Design Studio 2: Place 2 Thesis Supervision (TBD)
2019-2020	ARCH 5086: Material Culture ARCH 3906: Independent Study (Instructor - 4 Students) ARCH 1505: Place I ARCH 1515: Place II Thesis Supervisor (2 students) Secondary Reader (3 students)
2018-2019	ARCH 5086: Material Culture ARCH 1505: Place I (Co-ordinator) ARCH 1515: Place II (Co-ordinator) Thesis Supervisor (2 students) Secondary Reader (5 students)

Education

2012	PhD. History & Theory, McGill University
2006	MArch. (post professional) History & Theory, McGill University
1997	MArch. (professional) Dalhousie University
1995	B.Arch. (professional), Dalhousie University

Teaching Experience

2015 - Pres.	McEwen School of Architecture, Laurentian University, Sudbury (Tenured, full-time)
2015	Azrieli School of Architecture, Carleton University, Ottawa (Full-time)
2014	Azrieli School of Architecture, Carleton University, Ottawa (Part-time)
2014	Concordia University, Montréal (Part-time)
2012 - 2013	Concordia University, Montréal (Limited-term appointment, full-time)
2011 - 2012	Concordia University, Montréal (Part-time)

Recent Publications (select refereed)

2020	Strickland, T and Gaber, T. “The Breathing Grid.” In “Does Architecture Discriminate.” Special issue, The Site Magazine 41,2 (2020): (forthcoming - refereed).

2019 Strickland, T and Schwellnus, M. “Formerly Known as the Glass Ceiling: Engaging Gender Inequity Through Design-Build Pedagogy.” Journal of the Society for the Study of Architecture in Canada 44,1 (2019): 75-84. (refereed)

2016 Strickland, T. “Passive and Active: Public Spaces In McMaster Health Sciences Centre, 1972.” In Healing Spaces, Modern Architecture, and the Body. Eds. Ekici, Didem & Sarah Schrank. London: Routledge, 2016: 203-223.

Recent Honours and Awards (select)

2016 Ontario Public Service Human Resources Award of Excellence in Inclusion for small teams for Pride House TO Sudbury Celebrates (with MSoA, Cambrian Open Studio, Elementary Teachers Federation of Ontario, Fierte Sudbury Pride, and The SPOT).

Recent Scholarship, Research and Creative Activities (select)

2020 Installation, “So Called ‘Public Space’” For Nuit Blanche 2020, Feb. 8, 2020, McEwen School of Architecture, Sudbury (with Hannah Taylor, Emily Hannon and Courtney McCracken)
2019 Installation, “Breathing Grid.” For Nuit Blanche 2019, Jan. 26, 2019, McEwen School of Architecture, Sudbury (with Tammy Gaber)
2018 Installation, “Leave Your Shame Here.” For Nuit Blanche 2018, Jan. 27, 2018, McEwen School of Architecture, Sudbury (with Sonia Ekiyor - Katimi and Alice Malykh)
2017 - 2018 Design co-ordinator, ThunderBird Medicine Lodge, CFI Cultural Safety Lab for Health Sciences North Research Institute (with David Fortin, Terrence Galvin, Eladia Smoke, Eischezsorush Sadiq, Suleman Khan and Carrie Bourassa)
2017 Co-curator. “Mobilities.” For Barcelona International Residence for Artists and Researchers In Urban Creativity, Jiwar Creació i Societat, Oct. 5 - Nov. 14, 2017, Barcelona, Spain (with Mirea Estrada and Pau Matau)
2017 Installation, “Formerly Known As The Glass Ceiling.” For Move: Big Installation Party, Ontario Association of Architects, Sep. 11-13, 2017 (with Chris Baziw, Matthew Hunter, Marina Schwellnus and Jeremy Upward)
2017 Co-Curator/Exhibit Designer, The Noojamada Exhibit: Indigenous Perspectives on Healthy Relationships, Mar. 23 - Apr. 1, 2017, McEwen School of Architecture, Sudbury (with Yaeji Han)

Academic, Professional, and Public Service (select)

University
2020 - 2022 LUFA Board member
2019 Laurentian University Native Education Council, Truth and Reconciliation Task Force
2018 Introduction of Honourary Doctorate, Marianne McKenna
2017, 19 Thesis Defence (Chair)
2016 - 2018 LUFA Board member
2017 - Pres. Member of the Joint Health and Safety Committee
2017,18,19 Student Appeal Committee

Departmental
2017 - 2020 Faculty Success (Chair), Curriculum, and Policy Committees
2019 Sessional Hiring Committee
2017 Director Search Committee
2016,17 Faculty Search Committees

External
2017, 20 External Reviewer, The Journal of Architectural Education
2019 FRQSC: Fonds de recherche du Québec - Société et culture: Jury for projets en Recherche/Creation.

4.4 Current Faculty Resumes

Ted Wilson, B.E.S., B.Arch.
Master Lecturer

Date of Appointment: 2014
Area of Expertise: Architecture

Recent Teaching Assignments

2020-2021	ARCH 0100:	Co-operative Term 1
	ARCH 0300:	Co-operative Term 2
	ARCH 2505:	Design Studio 3: Landscape I
	ARCH 2515:	Design Studio 4: Landscape II
	ARCH 3306:	The Well Tempered Environment
	ARCH 5906:	Architectural Practice
2019-2020	ARCH 3306	The Well Tempered Environment
	ARCH 3316:	Structures 2: Connections
	ARCH 3505:	Northern Building 1
	ARCH 3515:	Northern Building 2
	ARCH 4316:	Structures 3: Building Systems
2018-2019	ARCH 3306:	The Well Tempered Environment
	ARCH 3316:	Structures 2: Connections
	ARCH 3505:	Northern Building 1
	ARCH 3515:	Northern Building 2
	ARCH 4316:	Structures 3: Building Systems

Education

1985	Bachelor of Architecture (B. Arch.) Professional Degree, University of Waterloo
1982	Bachelor of Environmental Studies (B.E.S.), University of Waterloo

Teaching Experience

2014 - Pres.	Faculty, McEwen School of Architecture, Laurentian University, Sudbury
2013 - 2014	Sustainable Design Advisor, Year 2, University of Toronto, John H. Daniels Faculty of Architecture, Landscape and Design, Toronto
2012 - 2013	Instructor, Energy Management and Sustainable Building Technology Program, Durham College, Whitby
2012 - 2013	Sustainable Design Advisor to the Architectural Curriculum Committee, Centennial College, Toronto
2012 – 2013	Sustainable Design Advisor to the Curriculum Development Team, George Brown College, Toronto

Recent Honours and Awards

2019	City of Greater Sudbury Recognition of The Well Tempered Environment Class (ARCH 3306) research contribution to the Revitalization of Laforest Avenue, Flour Mill Neighbourhood, Sudbury
2015	Nomination for Student Choice Teaching Award, Laurentian University (ARCH 3306)

Recent Publications

2020 "Sudbury: So Ready" Municipal World, Susan M. Gardner, editor, vol. 130, no.2 (February 2020), Union, ON p.11

2019 "The Flour Mill – Rediscovering and Revitalizing Place in Sudbury, Ontario" Municipal World, Susan M. Gardner, editor, vol. 129, no. 2 (February 2019), Union, ON p.13

2018 "Reflections on a Northern Future – Spotlight on Community Renewal in Sudbury, Ontario" Municipal World, Susan M. Gardner, editor, vol. 128, no.3 (March 2018), Union, ON p. 9

Recent Scholarship, Research and Creative Activities

2020 Member of MSoA Committee tasked with preparing competition brief for Sudbury 2050 Urban Design Ideas Competition; also selected to sit on the jury

2020 Initiated the MXD program at MSoA; the Program included the set-up and operation by volunteer participation of a recyclable materials depot in the school to reduce waste output and increase awareness of the value of material re-use in the design process

2020 Preparation of preliminary assessment and outline of strategies for the restoration of exterior masonry as part of an ongoing discussion with the City of Greater Sudbury, the local Community Action Network (CAN) for Haute-Ville in Downtown Sudbury, MSoA and the developer for the revitalization of an historically significant Francophone elementary school, in the Haute-Ville neighbourhood (St. Louis de Gonzague building)

2018 – 2019 Advisement through ARCH 3306 The Well Tempered Environment to the City of Greater Sudbury on relocation options for two heritage structures comprising the Flour Mill Museum to O'Connor Park as part of a continuing research program focused on neighbourhood revitalization

Academic, Professional, and Public Service

2019 – Pres MSoA representative to the Greater Sudbury Community Energy and Emissions Plan (CEEP) stakeholder working committee

2018 Facilitator for presentation on the "Four Walls" sustainable building envelope program originating with the Sustainable Built Environments Committee (SBEC) at the Ontario Association of Architects

2017 – 2019 Chair, Sustainable Built Environment Committee, Ontario Association of Architects

2013 – 2017 Member, Sustainable Built Environment Committee, Ontario Association of Architects

4.4 Current Faculty Resumes

Bruce Wrightsman, B.Arch, MArch
Assistant Professor

Date of Appointment: 2019
Area of Expertise: Design/Build, Structures, Wood Construction

Recent Teaching Assignments

2020-2021	ARCH 3316: Structures 2 - Connections ARCH 1505 EL/FL: Coordinator, Design Studio 1: Place ARCH 1515 EL/FL: Coordinator, Design Studio 2: Place
2019-2020	ARCH 5306: Fabrication 1 ARCH 1505 EL/FL: Design Studio 1: Place ARCH 1515 EL/FL: Coordinator, Design Studio 2: Place Thesis Supervision

Education

2005	Master of Architecture (M. Arch.) Post- Professional Degree, University of Texas at Austin Recipient: Honours Certificate of Achievement
1991	Bachelor of Architecture (B.Arch) Professional Degree, Kansas State University

Teaching Experience

2019 - Pres.	Assistant Professor, McEwen School of Architecture, Laurentian University, Sudbury
2013-2018	Assistant Professor, College of Architecture Planning and Design, Kansas State University, Manhattan, Kansas, Structures 1 & 2
2007-2013	Assistant Professor, School of Architecture, Montana State University, Bozeman, MT 2008-2011 Project Director: Hyalite Pavilion Design/Build project
2005-2007	Senior Lecturer, College of Architecture and Planning, University of Colorado, Boulder, Colorado 2005-2007 Project Director: TrailerWrap Design/Build Project

Recent Publications

2018	Wrightsman, Bruce. Skin and Bones: Exploring Structural Performance. Journal of the DesignCommunication Association Edited by M. Saleh Uddin, Kennesaw State University. pp. 106-111
2016	Wrightsman, B. Re-envisioning the Knot: The Neil Astle House: Beyond their Limits. Structures and Architecture Beyond their Limits. Edit by Paulo J. da Sousa Cruz. pp. 1416 – 1422. Published: CRC Press. July 11, 2016. ISBN 9781315730769
2014	Wrightsman, Bruce. Architectural Deliberation – The Hyalite Pavilion. (Chapter 4.2). Architecture Live Projects – pedagogy into practice. Edited by Harriett Harriss and Lynette Widder. Publisher: Taylor and Francis, 2014. pp. 136-141. ISBN: 978-0-415-73352-6 (pbk)
2011	Trailer Wrap Project: Nano House: Innovations for Small Dwellings, Phyllis Richardson. Publisher: Thames & Hudson. October 17, 2011. ISBN-10: 978-0500342732. pp. 042-043.

Recent Scholarship, Research and Creative Activities

2020	Lecture title: Is learning “to make” enough? The latent value hidden in design-build education. RAIC / CCUSA 2020 Virtual Academic Summit on Architecture, July 9, 2020
2017	Neil Astle: Omaha’s Midcentury Modern Man – Omaha Magazine, pp. 24-32.
2017	Wrightsman, Bruce. “Operation: Lightness” Building Technology Educators Society 2017 Conference: Poetics + Pragmatism. Des Moines, Iowa, June 8-10, 2017

Academic, Professional, and Public Service

2013 - Pres.	Building Technology Educators Society (BTES), Member
1992 - Pres.	Member of American Institute of Architects, [AIA]
1992 - Pres.	National Council Architectural Registration Boards, [NCARB]
1999	Licensed Architect – State of Kansas
1995	Licensed Architect – State of Nebraska

Current Faculty Resumes (Sessional Members with Establishment) 4.4

4.4 Current Faculty Resumes

Kemal Alladin, B.A.S., MArch,
Sessional Member (with establishment)

Date of Appointment: January 2018
Area of Expertise: Design/Build, Drawing + Representation, small scale architecture

Recent Teaching Assignments

2020-2021	ARCH 1505-EL: Design Studio I: Place ARCH 1515-EL: Design Studio II: Place ARCH 4526: Architectural Communications ARCH 1007: Sacred Places
2019-2020	ARCH 1505-EL: Design Studio I: Place ARCH 1515-EL: Design Studio II: Place ARCH 4526: Architectural Communications
2018-2019	ARCH 1505-EL: Design Studio I: Place ARCH 1515-EL: Design Studio II: Place ARCH 4526: Architectural Communications ARCH 4515: Design Studio 8

Education

2016	Masters of Architecture (MArch), University of Waterloo. Professional degree.
2014	Bachelor of Architectural Studies (BAS), University of Waterloo. Professional degree.

Teaching Experience

2018 - Pres.	Sessional Member, McEwen School of Architecture, Laurentian University, Sudbury
2019 – Pres.	Part-time Professor, College Boreal Architectural Technologist program, Sudbury ARQ 1024 – Dessin assisté par ordinateur III ARQ 1031 – Dessin assisté par ordinateur IV

Academic, Professional, and Public Service

2020 - Pres	We Live UpHere – UpHere Festival Board of Governor Member
2019 – Pres	Principal of Studio K – Design Studio
2016 – Pres	Inter Architect OAA
2020 Thesis	Second Reader: Jacob Riehl
2019 Thesis	Second Reader: Maxine Blais
2019 Thesis	Second Reader: Michelle Winkworth

Amber Baechler, B.Arch.S., MArch, OAA

Sessional Member (with Establishment)

Date of Appointment: September 2017
Area of Expertise: Architecture

Recent Teaching Assignments

2020-2021	ARCH 3505: Northern Building 1 ARCH 3515: Northern Building 2
2019-2020	ARCH 3505: Northern Building 1 ARCH 3515: Northern Building 2
2018-2019	ARCH 3505: Northern Building 1 ARCH 3515: Northern Building 2 Thesis Second Reader: Sahana Dharmaraj

Education

2012	Master of Architecture (M. Arch.) Professional Degree, Carleton University
2005	Bachelor of Architectural Studies (B.Arch.S.), Carleton University

Teaching Experience

2017 - Pres.	Sessional Member, McEwen School of Architecture, Laurentian University, Sudbury, ON
2010 - 2012	Teaching Assistant, Carleton University, Ottawa, ON
2004 - 2005	Teaching Assistant / Lab Technician, Carleton University, Ottawa, ON

Recent Scholarship, Research and Creative Activities

2017	“Light and the Absence of Light No.2” Architectural Installation: Nuit Blanche – McEwen School of Architecture, Sudbury ON In collaboration with Mark Baechler.
2017	“Cyan-Magenta-Yellow-Green” Invited Architectural Installation: Up Here Urban Art and Music Festival, Sudbury, ON In collaboration with the Northern Ontario Society of Architects. Ontario Association of Architects Grant: $5,000.

Academic, Professional, and Public Service

2017 - Pres.	Amber Baechler Architect
2017 - Pres.	Ontario Association of Architects, Registered Architect
2015 - Pres.	Northern Ontario Society of Architects, Board Member - 2020, Student Portfolio Reviews - 2019, Public Lecture, Networking Event and Pubic Architecture Tour (Grant: $3,950) - 2018, Public Lectures (Grant: $4,400) - 2015-2017, Up Here Architecture Installations (Grant: $12,000) - 2017, Public Lecture, Exhibition and Engagement Activity (Grant: $3,000)
2015 - Pres.	Waters Mennonite Church, Trustee

4.4 Current Faculty Resumes

Roch Belair, B.Arch (prof.), OAA
Sessional Member (with establishment)

Date of Appointment: September 2014
Area of Expertise: Architecture

Recent Teaching Assignments

2020-2021	ARCH 4505: Integrated Design 1 ARCH 4515: Integrated Design 2
2019-2020	ARCH 4505: Integrated Design 1 ARCH 4515: Integrated Design 2
2018-2019	ARCH 4505: Integrated Design 1 ARCH 4515: Integrated Design 2

Education

1984 Bachelor of Architecture (B. Arch.) (with high distinction), Carleton University

Teaching Experience

2014 - Pres. Sessional Member, McEwen School of Architecture, Laurentian University, Sudbury, ON

Professional Experience

2015 - pres.	Roch Belair architect/architecte
2010-2015	PBK Architects INC. / Architecture 49
1995-2010	ANO Architects Inc. (founding partner)
1987-1995	Osburn Cotnam Belair Architects Inc.

Professional Awards

Prix du Président, Collège Boréal,
Recognizing exceptional contribution to the development of Collège Boréal, 1999.
OAA, Award of Architectural Excellence
For Collège Boréal, awarded in 1998/1999
3 Wood Works Awards for various Northern Ontario Projects
Peetabeck Academy, Fort Albany Ontario
Timmins Public Library
Mattawa General Hospital

Academic, Professional, and Public Service

CACB-BEFA, Canadian Architectural Certification Board,
Broadly Experienced Foreign Architect Certification Process. (Assessor)
Member of the Club Richelieu les Patriotes

Jennifer Harvey, B.L.A, M.A.

Sessional Member (with establishment)

Date of Appointment: 2014
Area of Expertise: Landscape Architecture

Recent Teaching Assignments

2018-2020	ARCH 1505: Studio One- Place ARCH 1515: Studio Two- Place
2014-2018	ARCH 2505: Studio Three- Landscape ARCH 2515: Studio Four- Landscape

Education

2019	Masters in the Humanities: Humanities / Social Culture Interpretation and Values, Laurentian University
2000	Bachelor of Landscape Architecture, University of Guelph. Professional degree.
1997	Horticulture and Landscape Technician, Algonquin College

Teaching Experience

2014 - Pres.	Sessional Member, McEwen School of Architecture, Laurentian University, Sudbury 2014-2018 Studios 3 and 4 Landscape 2018-2020 Studios 1 and 2 Place

Recent Publications

2019	Landscapes of Conversion: The Evolution of the Residential School Sites at Wiikwemkoong and Spanish, Ontario. https://zone.biblio.laurentian.ca/bitstream/10219/3229/1/Harvey-%20Final%20Thesis%20March%202019.pdf

Recent Scholarship, Research and Creative Activities

Landscape Architecture Projects:

2020	Therapeutic Garden for the Long Term Care Centre, Espanola Regional Hospital Lajuennesse Residence, Sudbury Ontario Egan and Krueger Residence, Sudbury Ontario Feasibility Study for Youth Centre, Wahnapitae First Nation Feasibility Study for a Recreation Centre, Mohawks of the Bay of Quinte
2019	Kalmo Beach Municipal Park Redevelopment Concept, City of Greater Sudbury Playground Consultation, City of Greater Sudbury Entrance Garden and Monumental Sign, Town of Espanola Emiry Residence

Academic, Professional, and Public Service

2016-2020	Ontario Association of Landscape Architects, PDP reviewer
2019	Save A. B. Ellis Redevelopment Concept (volunteer)
2012	Ontario Association of Landscape Architects- full member with Seal

CACB CCCA

2018 Candidacy Visiting Team Report

Master of Architecture Program
Laurentian University

Visiting Team Report From Previous Visit 4.5

4.5 Visiting Team Report from the Previous Visit

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I. Introduction • CACB Accreditation

The CACB is a national independent nonprofit corporation. The directors are elected from individuals nominated by the Canadian Architectural Licensing Authorities (CALA), the Canadian Council of University Schools of Architecture (CCUSA), and the Canadian Architecture Students Association (CASA). The CACB is a decision-making and policy-generating body. It is the sole organization recognized by the architectural profession in Canada to assess the educational qualifications of architecture graduates (Certification Program) and to accredit professional degree programs in architecture that are offered by Canadian universities (Accreditation Program).

The CACB head office is in Ottawa, Ontario. It adheres to the principles of fairness, transparency, clarity, and ethical business practices in all of its activities.

By agreement of the Licensing Authorities (the councils of nine provincial institutes and associations), the CACB was established in 1976 to assess and certify the academic qualifications of individuals holding a professional degree or diploma in architecture who intended to apply for registration. In 1991, the CACB mandate to certify degree credentials was reaffirmed, and its membership was revised to reflect its additional responsibility for accrediting professional degree programs in Canadian university Schools of Architecture.

Graduation from a CACB-accredited program is the first of three steps (education, experience, and examination) on the path to licensure.
The CACB only accredits *Programs* that are intended by their institution to be professional degrees in architecture that lead to licensure. Professional accreditation of a *Program* means that it has been evaluated by the CACB and substantially meets the educational standards that comprise, as a whole, an appropriate education for an architect.

The CACB only awards accreditation to professional degree *Programs* in architecture. A CACB-accredited professional *Program* in architecture is defined as the totality of a student's post-secondary education culminating in a designated professional university degree, which may be a bachelor of architecture (BArch) or a master of architecture (M. Arch) degree.

The *Programs* include:

- a minimum of five years of post-secondary study culminating in a master of architecture degree, which follows a *pre-professional* bachelor's degree, except in Quebec, where the minimum is four years of professional studies following two years of CEGEP;
- a minimum of six years of post-secondary study culminating in a master of architecture degree, which follows a bachelor's degree in any discipline and includes a minimum of three years of professional studies in architecture; or
- a minimum of five years of post-secondary study culminating in a bachelor of architecture degree.

In keeping with the principal of outcome-based *Accreditation*, the CACB does not restrict the structure of a professional *Program* and/or the distribution of its coursework.

The accreditation process requires a self-assessment by the institution or *Program*, an evaluation of the self-assessment by the CACB, and a site visit and review conducted by a team representing the CACB. The process begins at the school with the preparation of the Architecture Program Report (*APR*). The *APR* identifies and defines the program and its various contexts, responding to the *CACB Conditions and Procedures for Accreditation*. The *APR* is expected to be useful to the planning process of the school, as well as documentation for the purposes of accreditation.

Upon acceptance of the *APR* by the CACB Board, an accreditation visit is scheduled. The CACB's decision on accreditation is based upon the capability of the program to satisfy the Conditions and Procedures for Accreditation, including the ability of its graduating students to meet the requirements for learning as defined in the Student Performance Criteria. During the visit, the team reviews student work and evaluates it against these requirements. The team also assesses the effectiveness and degree of support available to the architectural program through meetings with the institution's administrators at various levels, architecture and other faculty, students, alumni, and local practitioners.

At the conclusion of the visit, the Visiting Team makes observations and expresses compliments and concerns about the program and its components. It also offers suggestions for program enrichment and makes recommendations, which, in the judgment of the team, are necessary for the program's improvement and continuing re-accreditation. Following the visit, the team writes the following VTR, which is forwarded with a confidential recommendation to the CACB. The CACB then makes a final decision regarding the term of accreditation.

Terms of Accreditation

Term for Initial Accreditation
Programs seeking initial *accreditation* must first be granted candidacy status. The maximum period of candidacy status is six years.

Programs that achieve initial *accreditation* at any time during the six-year candidacy will receive an initial three-year term, indicating that all major program components and resources are in place. Some additional program development may be necessary and/or deficiencies may need to be corrected. Additionally, to be eligible for CACB certification, students cannot have graduated from the *Program* more than two years prior to the initial *accreditation*.

Terms for Continuing Accreditation

a) Six-year term: Indicates that deficiencies, if any, are minor and that a process to correct these deficiencies is clearly defined and in place. The *Program* is accredited for the full six-year period.

b) Six-year term with a "focused evaluation" at the end of three years: Indicates that significant deficiencies exist in meeting the requirements of the CACB Conditions and Terms for Accreditation; consideration of these deficiencies will form the basis of a focused evaluation. The *Program* is required to report on its particular deficiencies during the third year.

c) Three-year term: Indicates that major deficiencies are affecting the quality of the *Program*, but the intent to correct these deficiencies is clear and attainable. The *Program* is accredited for a full three-year period. If the *Program* receives two consecutive three-year terms of *accreditation*, then the *Program* must achieve a six-year *accreditation* term at the next *accreditation* visit. If the *Program* fails, it will be placed on a two-year probationary term. If the *Program* fails to achieve a six-year term at its subsequent *accreditation* visit, then its *accreditation* shall be revoked.

d) Two-year probationary term: Indicates that CACB deficiencies are severe enough to seriously question the quality of the *Program* and the intent or capability to correct these deficiencies is not evident. A *Program* on probation must show just cause for the continuation of its *accreditation*, and at its next scheduled review, the *Program* must receive at least a three-year term or *accreditation* will be revoked. If the two-year probationary term is following the sequence described in "c," the *Program* must receive at least a six-year term or its *accreditation* shall be revoked.

e) Revocation of accreditation: Indicates that insufficient progress was made during a two-year probationary term to warrant a full three-year or six-year *accreditation* term. Notwithstanding, the foregoing *accreditation* of any *Program* can be revoked at any time if there is evidence of substantial and persistent non-compliance with the requirements of the CACB Terms and Conditions for Accreditation.

Term for Reinstated Accreditation

Should the accreditation of a *Program* lapse or be revoked, the procedures for reinstatement shall be the same as those applicable to initial candidacy. The term of reinstated *accreditation* is the same as the term of initial *accreditation*. If the *Program* is successful in achieving *accreditation* at any time during the six-year candidacy, the *Program* will receive a three-year term of *accreditation*.

II. Summary of Team Findings

1. Team's General Comments

The preparation for, and communication around, the Candidacy Visit for Laurentian University – McEwen School of Architecture (MSoA), followed CACB protocol and was specifically structured through an adherence to the following documents: CACB Procedures for Accreditation, CACB Conditions and Terms for Accreditation, and CACB Visiting Team Chair's Protocol.

The agreed upon Candidacy Visit Agenda, appended within this document in its final (revised) version, was followed in its entirety save for the following requested changes:

1. Replacing a planned lunch with selected faculty for a meeting with support staff (Monday March 12, 2018, 1pm)
2. Replacing an out-of-school lunch date with an eat-in working lunch (Monday March 12, 2018)

The Architecture Program was responsive and timely in submitting material and addressing questions around the visit and the necessary preparations, as well as attentive to the on-going requests from the Visiting Team during the visit.

The Visiting Team wants to acknowledge the exceptional preparation for the Candidacy Visit, the quality of the Team Room, and professional attitude of its hosts during the visit. The visit and the evidence gained in its duration surpassed the expectations of the Team.

To this end, the Visiting Team wishes to thank Dr. David Fortin, Dr. Terrance Galvin, the faculty, support staff, and students of the MSoA.

The following is a list of additional material requested by the Visiting Team:
Laurentian University Collective Agreement
Laurentian University Admissions 2017 Undergraduate Programs, Credit Transferability, page 13.
McEwen School of Architecture Transfer Credit Policy
McEwen School of Architecture Transfer/Previously-Earned Credit Chart
IT Budget Calculations
Questions/Clarifications Requested March 11, 2018 (and subsequently provided in a timely manner):

1. Reference CACB Conditions and Terms for Accreditation, 4.2 Student Progress Evaluation. Please clarify the Program's procedure for evaluating transfer credits for incoming students.
2. Reference CACB Conditions and Terms for Accreditation, 3.11 Professional Degrees and Curriculum. Please clarify how the Program is meeting the requirement that no more than 60% of a student's required post secondary education is devoted to Professional Studies. Besides the 8 electives, please list the courses that are General Studies.
3. Reference CACB Conditions and Terms for Accreditation, CACB Perspective C Architecture Education and Registration. It is our understanding that the co-op program is part of the Program's strategy for meeting this perspective. Please clarify how the student experience is evaluated during these co-op sessions.
4. Reference CACB Conditions and Terms for Accreditation, 3.2 Program Self-Assessment. The APR states that during the Program's Faculty Retreat, a new Strategic Plan was

developed outlining 6 goals. Please clarify how the Program will provide an assessment of the degree to which it is fulfilling its mission and achieving its strategic plan.

5. Reference CACB Conditions and Terms for Accreditation, 3.8 Information Resources and Information Technology. Please provide an update on the cataloguing of Library of Congress NA or Dewey 720 – 729 titles towards meeting the minimum requirements.
6. Reference CACB Conditions and Terms for Accreditation, 3.8 Information Resources and Information Technology. In terms of Information Technology Resources, please clarify the Program's action plan as well as demonstrating sufficient funding to execute the action plan.

2. Conditions for Accreditation "met" and "not met": a summary

	Met	Not Met
1. Program Response to the CACB Perspectives		
A. Architecture Education and the Academic Context	[x]	[ ]
B. Architecture Education and the Students	[x]	[ ]
C. Architecture Education and Registration	[x]	[ ]
D. Architecture Education and the Profession	[x]	[ ]
E. Architecture Education and Society	[x]	[ ]
2. Program Self-Assessment	[x]	[ ]
3. Public Information	[N/A]	[NA]
4. Social Equity	[x]	[ ]
5. Human Resources	[x]	[ ]
6. Human Resource Development	[x]	[ ]
7. Physical Resources	[x]	[ ]
8. Information Resources and Information Technology	[x]	[ ]
9. Financial Resources	[x]	[ ]
10. Administrative Structure	[x]	[ ]
11. Professional Degrees and Curriculum	[x]	[ ]

3. Program's Progress since the previous site visit

The CACB Eligibility Visit took place in Sudbury from May 17 – 19, 2017. The Visiting Team, made up of Thérese Leblanc (CACB President), Dr. Anne Bordeleau (CACB Director), and Mourad Mohand-Said (CACB Executive Director), indicated in their VTR that the Program was well positioned to continue with its accreditation process, and therefore recommended the granting of Eligibility Status to the MSoA. The Eligibility Visiting Team articulated no key concerns in their assessments, and therefore, no key progress items were to be addressed by the Program outside of an expected evolution in preparation for the Candidacy Visit.

4. Program Strengths

The Program's Vision, Mission, and Strategic Plan are ambitious, relevant, inclusive and connected to the aspirations of Laurentian University. In particular, its tricultural mandate and instruction in both English and French, commitment to a design/build culture, and integrated Co-op Program, set the table for curricular excellence and a generous and robust student experience.

The Program and its facilities are grounded in the culture, landscape, and social fabric of Sudbury and Northern Ontario, and exist as a catalyst and model for the redevelopment of downtown Sudbury. In this capacity, the MSoA is a valued ambassador of Laurentian University for these stakeholders and is well positioned to effect positive change in the city and its surrounding communities.

The students are fundamentally invested in the vision of the Program and cite numerous advantages of studying at the MSoA. The students chose the Program based on its commitment to environmental stewardship, design/build opportunities, the Co-op Program, and the informative field trips. As well, the Program's connection to the community, as a place of learning and dialogue with the multiple contexts that influence design and the profession, is appreciated. The students are articulate, and value the relationship between critical thinking, design thinking, and making.

The support staff are committed to the aspirations of the Program and embrace their critical roles in fulfilling its mandate. They are energetic, collegial, and are considered as extremely valuable resources by the students and faculty.

The Faculty are motivated, passionate, invested, and dedicated to the mission of the Program. Their commitment has been tested by the challenges of creating a new school, while the opportunity afforded through this creation has sharpened their conviction to the potential and value of instruction and research. The faculty's responsiveness to the needs of the students was universally acknowledged.

The Laurentian University leadership, including Dr. Osman Abou-Rabia, Dr. David Lesbarrères, and VP Academic & Provost Serge Demers, are fundamentally committed and fully supportive of the Program's aspirations, as well as its fulfillment of accreditation requirements.

The Integrated studios demonstrate an impressive synergy of technical and creative thinking, coordinated in a studio setting, and stimulated by professional experience and design/build knowledge sets.

The full integration of the Co-op Program into the curriculum, as not only a learning experience around professional practice, but also cultivating critical reflection and action, is to be applauded.

The workshops and fabrication labs are key assets for the productive relationship of making and design thinking. They are coordinated, thoughtfully designed, and well appointed, providing students and faculty alike the resources needed to fulfill the program's design/build program, studio learning outcomes, and faculty research aspirations.

The library is a key amenity that has developed into a cultural, social and research nexus. The librarian and her team are committed and resourceful, developing a critical mass of books, periodicals, and references that service faculty research and student learning.

Fundamental to the success and development of the Program, is the enviable support of the Sudbury community for the School and its mandate. This synergistic relationship is manifest in cultural and social exchanges, and a shared vision for the school's catalytic effect on city building.

Finally, the Visiting Team acknowledges the leadership, vision, and unwavering commitment of Founding Director Dr. Terrance Galvin to the creation and construction of an inclusive and progressive school of architecture founded on the opportunities of Northern Ontario.

5. Causes of Concern and Team's recommendations

CACB Condition 3.11 Professional Degrees and Curriculum requires that a student's education be structured around a balance between Professional Studies, General Studies, and Electives, with a proportion of no more than 60% dedicated to Professional Studies. Currently, the curriculum features 62.5% of the courses dedicated to Professional Studies, and the Visiting Team requests that the Program address this concern during the next step towards accreditation.

The Program's well-considered pedagogy outlines a constructive relationship between design thinking and making. Early in the delivery of courses, student design explorations commence with hand drawing and making, and progressively move towards the integration of digital ideation, exploration, and fabrication. The Visiting Team sees a problematic gap between the expectations for student digital production and the formal delivery of instruction dedicated to the development of digital skills. The Visiting Team acknowledges that the profession, including Co-op Program participants, seeks both critical thinkers as well as graduates versed in a variety of digital platforms.

III. Compliance with the Conditions for Accreditation

1. Program Response to the CACB Perspectives

Programs must respond to the relevant interests of the constituencies that make up the CACB: educators (CCUSA) and regulators (CALA), as well as members of the practicing profession, students and interns, and the general public.

General Team Comments:

The McEwen School of Architecture offers a comprehensive curriculum that responds to the five CACB Perspectives. The response to these Perspectives is evidenced within a program that includes professional practice courses, integrated design studios, field trips, design-build and fabrication labs, and co-op education programs, all centered around social awareness, diversity, and environmental and sustainable issues within the geographical and cultural context of the North. The strong community commitment as well as the potential for collaborative architectural education, is manifested in the physical design of the facility and program of the MSoA. The unique building design facilitates the interaction between students, faculty, visiting professionals, community members, and its tricultural mandate within the design studio and other public spaces. The McEwen gift to the school, announced in 2016, and used for both the completion of the building and for programs intended to enhance the student experience, is a key asset for the school. Taken as a whole, the MSoA structures and delivers a progressive and ambitious vision of architectural education.

A. Architecture Education and the Academic Context

The program must demonstrate that it both benefits from and contributes to its institutional context.

Met	Not Met
[x]	[ ]

Team comments:

The Visiting Team found evidence of a symbiotic relationship between the Program and the University, manifested in a number of ways. Meetings with Dr. Fortin and Dean Osman Abou-Rabia reinforced that the Program benefits from full support of the Institution as well as contributes to the institution through its ambitious tricultural vision, and legible presence of Laurentian University in downtown Sudbury. Dean Osman Abou-Rabia described the MSoA as the second largest venture for the University, and is fully committed to the success of the school and its objective of accreditation. Discussions with the faculty members revealed a commitment to a collaborative interaction between the MSoA and other programs of the University, as well as intensive community outreach and engagement. There are synergies between the MSoA and various university departments and their faculty, including the key topics of climate change, sustainability, and northern ecology. The Program is currently developing the faculty position of Graduate Coordinator, with potential teaching release, in order to more fully engage and benefit from being part of the Faculty of Graduate Studies, including the facilitation of graduate student funding.

B. **Architecture Education and the Students**

The program must demonstrate that it provides support and encouragement for students to achieve their full potential during their school years and later in the profession, and that it provides an interpersonal milieu that embraces cultural differences.

Met	Not Met
[x]	[ ]

Team comments:

Students have the opportunity to achieve their full potential through a comprehensive and well-integrated Co-op Work Program, interactive studios, field trips that immerse them in local cultures, an architectural practice course that bridges to the profession, and a design/build initiative that engages diverse communities. Guest lecturers, architects, engineers, environmental professionals, First Nation Elders and visiting sessional instructors/studio critics expose the students to a variety of environmental sustainability, cultural and professional issues and international contexts. The MSoA, in conjunction with Laurentian University, offers students different programs and counseling to address diverse student needs. Finally, the Program's tricultural mandate engages and celebrates inclusivity and diversity in cultivating worldviews.

C. **Architecture Education and Registration**

The program must demonstrate that it provides students with a sound preparation for the transition to professional life, including internship and licensure.

Met	Not Met
[x]	[ ]

Team comments:

The local society of architects and the practicing Architects in the region are fully involved in the MSoA through their participation in studio and course reviews, employment of Co-op students and meetings at the school. In addition, Arch 5616 - Architectural Practice, covers ethics, both Indigenous and western, diversity, project management, contracts, liability, professional judgment and legal issues. The Canadian Handbook of Practice and the Intern Architect Program are used as reference documents in the course.

D. **Architecture Education and the Profession**

The program must demonstrate how it prepares students to practice and assume new roles within a context of increasing cultural diversity, changing client and regulatory demands, and an expanding knowledge base.

Met	Not Met
[x]	[ ]

Team comments:

Professional ethics as a topic is present in much of the Program's courses, including the Program's response to environmental sustainability. Courses such as Arch 2326 - Architecture and Ecology, Arch 1007 - Sacred Places, and Arch 2306 - Design for Climate Change, demonstrate an ethical environmental, cultural and social approach. Students in the Co-operative 2 Arch 0300 program are required to undertake a research assignment as part of their placement in order to develop in-depth knowledge about a range of architectural

practices. The requirement is to research and document three practices different in scale and type, from small to large. Finally, Arch 5616 - Architectural Practice, covers collaborative roles and responsibilities of associated disciplines in architectural practice.

E. Architecture Education and Society

The program must demonstrate that it equips students with an informed understanding of social and environmental problems and that it also develops their capacity to help address these problems with sound architecture and urban design decisions.

Met	Not Met
[x]	[ ]

Team comments:

The new downtown facility immerses the MSoA program in social awareness and urban design issues and is designed as an event space, a place of social interaction facilitating the students' involvement with the wider community. A diverse public lecture series, and plans for external public exhibitions, reinforce this awareness within the student body. Sudbury, as well as its broader communities, defines the spaces and sites for the majority of the studio projects, grounding the students' design education in social, cultural, environmental, and physical contexts.

Arch 1006 - Design Thinking, addresses critical thinking and judgment related to architectural design and urban design issues and decisions. The Integrated Design Studios also develop complex thinking through design decisions. Social issues, gender equality, and diversity are presented in Course 5616 – Architectural Practice. This is undertaken through readings, guest lectures, research and assignments. Arch 5525- Indigenous Design and Arch 3006 – Indigenous Precedents, present to the students an understanding of leadership and advocacy through indigenous design. Elders-in-residence deliver lessons and guide students in First Nation and Métis principles based on cultural precedents, traditions and environmental issues.

There are extensive environmental courses including Landscape Studios I and II (Arch 2505 and Arch 2515), as well as Arch 2326 – Architecture and Ecology, and Arch 2306 – Design for Climate Change, which connect climate change and ecological issues to architecture and urban design. Northern Building Studios (Arch 3505 and Arch 3515) present environmental issues of design and geographical challenges regarding building design in the north.

2. Program Self-assessment

The program must provide an assessment of the degree to which it is fulfilling its mission and achieving its action plan.

Met	Not Met
[x]	[ ]

Team comments:

A Strategic Plan, developed during the program retreat in June 2017, and outlining 6 future goals for 2018 – 2022, is a strong articulation of the Program's research and pedagogical goals. Each of the goals of the Strategic Plan features relevant metrics defined to measure the Program's success in meeting its objectives.

Prior to the development of the Strategic Plan, the Program also developed a series of surveys to engage and receive feedback on its curriculum and learning context from its stakeholders. This feedback was reflected in the development of the 2017 Strategic Plan.

3. **Public Information**

The program must provide clear, complete, and accurate information to the public by including in its academic calendar and promotional literature the exact language found in the CACB 2010 Conditions (Appendix A-1), which explains the parameters of an accredited professional degree program.

Met	Not Met
[NA]	[NA]

Team comments:
The CACB Condition 3 does not apply to this Program as it has not yet achieved Candidacy Status or Initial Accreditation at this time.

4. **Social Equity**

The accredited degree program must provide a summary of provincial and institutional policies that augment and clarify the provisions of the Charter of Rights and Freedoms as they apply to social equity.

Met	Not Met
[x]	[ ]

Team comments:

Social Equity is defined, communicated, and legislated through the university's *Collective Agreement*, *Procedures for Hiring and Interviewing Faculty*, and the *Employment Equity Form*. The University also has a web presence that describes social equity and its relevance to the university community.

Additionally, the Program advocates for social equity, inclusivity and diversity through its tricultural mandate, its instruction in two languages, presence of Elders within the school culture, and promotion of hiring faculty that are multi-lingual. The diversity of both the faculty and student body is a direct result of the University and Program's social equity procedures.

5. **Human Resources**

The program must demonstrate that it provides adequate human resources for a professional degree program in architecture, including a sufficient faculty complement, an administrative head devoting not less than fifty percent of his/her time to program administration, administrative and technical support staff, and faculty support staff.

Met	Not Met
[x]	[ ]

Team comments:

As the Program has evolved and expanded to meet its enrolment target of 400 students, the related and necessary contingent of faculty and support staff has been hired. Currently, with a student enrolment of 293 students, the Program has 13.5 FTE (including the director at 50% teaching), 1

FTE Librarian, 5 Design Studio Sessional Instructors, 2 Adjunct Professors, and 7.5 support staff (including 1 multi-media position at 50%).

According to Laurentian University's *Collective Agreement*, FTE faculty are required to commit 40% to teaching, 40% to research, and 20% to an administration load. As well, the Director is given a 50% reduction in teaching load in order to dedicate 50% of their time for Program Administration.

It is critical to note that an accredited architectural education requires the *delivery of a given set of educational experiences*, and therefore, assessing and providing the number of faculty simply based on student numbers is not accurate and can lead to unsustainable teaching loads and a poor student experience. Equally important, the CACB defines the studio ratio of student to faculty as a maximum of 15:1. Moving forward with the growth of the program, it is the Visiting Team's assessment that 4 new faculty positions are required to meet the accreditation requirements of the Program.

It is important to underline that the MSoA has the responsibility to manage its tricultural mandate, the Co-op Program, and the design/build initiative. These key program facets require an enormous degree of support, in addition to what is considered the delivery of a conventional accredited architectural education. This means additional support staff is critical to meet the administrative load of these key curricular initiatives. The Visiting Team is aware that 4 new positions have been requested in order to meet CACB accreditation requirements (4.5 FTE required at full capacity of 400 students). As well, additional support staff have been requested by the Program, including a second Co-op Coordinator (who could share other administrative loads such as the management of admissions) and a permanent Digital Fab Lab Technologist. It is the Visiting Team's assessment that these positions are critical for the Program to meet its curricular mandate.

Finally, in order to develop a critical mass of French language design culture in the school, the Visiting Team recommends exploring an idea that was suggested during its meeting with the MSoA faculty. The creation of a rotating French speaking design chair has the potential to bring architectural scholars and designers to the school, catalyzing architectural discourse in supporting, supplementing, and animating the current delivery of French architectural education.

6. **Human Resource Development**
Programs must have a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the program.

Met	Not Met
[x]	[ ]

Team comments:

It is the *Collective Agreement* (July1, 2017 to June 30, 2020) that structures the majority of opportunities for faculty at Laurentian University and the MSoA. In addition to the *Collective Agreement*, other opportunities for faculty include available funding such as start-up grants for all full time tenure-track faculty, as well as $5,000 grants for small-scale research projects. Each faculty member writes and submits to the Dean, for review and assessment, an Annual Report outlining their research, teaching and administrative contributions, towards defining a trajectory for promotion and tenure. The development of the new Collective Agreement (Scholarly Activity 5.15.22, page 61-62) features key definitions of research that are in keeping with design and creative research. The formal acknowledgment of this research allows the faculty at the MSoA to be well positioned for assessment and promotion. In addition to university policies around faculty

development, the MSoA is in the process of writing and obtaining approval for a constitution that will outline program-specific policies around human resources development.

In terms of student growth opportunities both within and outside the Program, these are most fully developed through the University's student societies, both in English and French, as well as the MSoA's Laurentian Architecture Student Association. These societies offer a diverse set of student events and experiences. MSoA graduate students currently have access to 10 Graduate Teaching Assistantships, as well as funding for research travel and attending conferences. With the advent of the position of a Graduate Coordinator at the MSoA, there will exist a strong advocacy for graduate student support from the Faculty of Graduate Studies.

7. Physical Resources

The program must provide physical resources that are appropriate for a professional degree program in architecture, including design studio space for the exclusive use of each full-time student; lecture and seminar spaces that accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space.

Met	Not Met
[x]	[ ]

Team comments:

In addition to the review of the architectural drawings provided in the Supplemental Material section of the APR, touring and observing the facilities confirmed the exceptional physical resources of the MSoA. Alongside the 65,000 sq.ft studio space, classroom spaces, lecture hall, the performance atrium, and the student exhibition/critique room, the new facilities offer a generous and well-appointed state-of-the-art digital fabrication technology and workshop space. Taken as a whole, the facilities offer the students and faculty a full compliment of resources from which to explore and deliver design.

8. Information Resources and information technology

The architecture librarian and, if appropriate, the staff member in charge of visual resource or other non-book collections must prepare a self-assessment demonstrating the adequacy of the architecture library. For Information Technology Resources, the program must also provide the information technology infrastructure and corresponding staff support in order to effectively contribute to the delivery of the curriculum, as well as supporting activities of staff and faculty.

Met	Not Met
[x]	[ ]

Team comments:

The Architecture Library is housed in the CLT wing of the new building, and it was designed to house up to 7,000 books. The Library is approximately 4,850 square feet and is an ample size. It is the only room in the entire complex of architecture buildings that is carpeted, and interestingly, the carpet has a pixelated graphic of the Sudbury impact basin. The Library's exhibits and events, including Lunch & Learn sessions and the featuring of students' design work, makes the space dynamic and welcoming.

Despite the fact that the library hasn't yet reached the required number of catalogued Library of Congress NA or Dewey 720-729 volumes (currently they have 3405 volumes of this type), the

Visiting Team is confident that the Library's Collection Development Policy and related acquisition budget, places it in a good position to reach the CACB collection objective.

This confidence is based on the Library's expenditure history, which shows a constant progression in the budget over the years: 2015-2016: $34,215.16, 2016-2017: $43,297.77, and 2017-2018 (projected): $57,622.72.

The administrative structure of the architecture library is such that it is considered a branch library of the main Laurentian University Library and Archives.

The current Architecture Librarian is a seasoned academic librarian. She holds an MLS degree from Syracuse University (NY) and a Graduate Diploma in Theology from Regent College (BC) and has worked in higher education administration at five institutions in both the United States and Canada prior to coming to Laurentian University. She attends most School of Architecture faculty meetings and is considered a part of the School's educational team. As a member of the Laurentian University Faculty Association (LUFA), the Architecture Librarian has faculty status; as such, 40% of her work is devoted to research/writing, 40% to administration, and 20% to governance. The Librarian has a full-time support staff.

Information Technology Services are very much in evidence throughout the building with a dedicated IT Staff. They operate with autonomy within MSoA and are supported by Laurentian's on-campus IT personnel.

Students, faculty and staff have access to on-site support that includes installing and maintaining software and hardware in the computer labs and teaching spaces, maintaining operations of network, AV, and computer and printing equipment on site, and providing technical support for faculty/staff office computers, as well as student computers in regards to benefitting their learning experience.

The computer resources appear to be adequate for student needs with a total of 35 workstations in the Computer Facilities. In addition to the Computer Lab, students have access to the Conference Room, the Fabrication Lab, the Laser Cutter room, the Photo Lab, and other spaces adequately equipped with IT and network technology and software.

The Program has started building a Data Centre in the Penthouse that will act as a backup of all Laurentian University's critical services and will provide the infrastructure to implement a Render Farm.

Finally, the MSoA has an action plan for its IT infrastructure with a related annual budget of $142,000. This plan and operating budget was confirmed by Mr. Luc Roy, Head of Information Technologies at Laurentian University (refer to additional information requested). The action plan and related budget are reasonable for the support of the Program's activities.

9. **Financial Resources**
Programs must have access to sufficient institutional support and financial resources.

Met	Not Met
[x]	[ ]

Team comments:

A review of the last 4 years of MSoA's operations budget (refer to submitted additional information) suggests that the Program has received sufficient institutional support in order to deliver its curriculum and programming. In 2016, the Program institutionalized a Student Travel Fee to help recuperate the substantial costs of travelling to remote studio and community engagement locations, and thereby offset a small budgetary deficit.

The substantial gift from Rob and Cheryl McEwen has allowed the creation of a fund to be utilized to promote student experience in the north, indigenous outreach and development, student scholarships, guest speakers, and working with wood and other hybrid technologies in the design field. This fund was operationalized in January 2018. The APR indicates other funds being raised for similar enrichment and student scholarships, while Laurentian University is also supporting graduate students through Graduate Teaching Assistantships and Graduate Fellowships, which also help in the delivery of courses.

Finally, there are on-going discussions between the Program and the University regarding a cost-share of the revenues generated by the rental space within the MSoA's building.

10. Administrative Structure (Academic Unit & Institution)

The program must be part of, or be, an institution accredited by a recognized accrediting agency for higher education. The program must have a degree of autonomy that is both comparable to that afforded to the other relevant professional programs in the institution and sufficient to assure conformance with all the conditions for accreditation.

Met	Not Met
[x]	[ ]

Team comments:

The MSoA is part of the Faculty of Science, Engineering and Architecture, which is part of Laurentian University as an accredited institution and member of Universities Canada. The Director of the School reports to the Dean, who, in turn, reports to the VP Academic and Provost. The school is in the process of articulating its own governance structure, understood at Laurentian University as a constitution. The MSoA's constitution will formalize how it operates as an extension of Laurentian University.

The MSoA is given its own financial budget, which is based on the Program's student numbers. From this budget, the Program needs to manage and deliver its curriculum. This has positioned the school to be entrepreneurial from a financial point of view. It is clear to the Visiting Team that the MSoA has the sufficient autonomy in order to assure the conformance with the conditions for accreditation.

11. Professional Degrees and Curriculum

The CACB awards accreditation only to first-professional degree programs in architecture. These include:

- *Master of Architecture degree with a related pre-professional bachelor's degree; requirement, typically amounting to five or six years of study;*

- *Master of Architecture degree without a pre-professional requirement, consisting of an undergraduate degree plus a minimum of three years of professional studies.*
- *Bachelor of Architecture degree requiring a minimum of five years of study, except in Quebec, where four years of professional studies follows two years of CEGEP studies;*

The curricular requirements for awarding these degrees must include three components: general studies, professional studies, and electives that respond to the needs of the institution, the architecture profession, and the students respectively.

Met	Not Met
[x]	[ ]

Team comments:

The professional degree framework at the MSoA is the 4 + 2, consisting of a four year undergraduate BAS and a two year graduate MArch.

Within this framework, the Program must deliver professional studies, general studies, and electives. The MSoA offers 8 courses (3 credits each) as electives, all within the timeframe of the BAS program. In its current curriculum, the Program's professional studies account for 62.5% of the curriculum, slightly over the CACB mandated maximum of 60%. The Program is to review and revise its curriculum to ensure it provides the correct number of elective and general studies opportunities.

IV. Appendices

Appendix A: Program Information

The following is condensed from the Program's Architecture Program Report

1. Brief History of Laurentian University

Laurentian University (LU) was incorporated on March 28, 1960. Laurentian is officially a bi-lingual and tricultural university, located on the traditional territory of the Anishinaabe peoples of Atikameksheng (Whitefish) First Nation. The city and region of Sudbury, Ontario offers unique cultural, recreational, and educational opportunities. Historically a world leader in nickel mining, Sudbury is now the major retail, economic, health and educational centre for Northeastern Ontario. The city and the campus are situated on the Canadian Shield where major industries include timber and mining. Sudbury lies in the Robinson-Huron Treaty territory.

Laurentian's campus is a beautiful 765-acre site on the edge of Lake Ramsey. Students and faculty enjoy an incomparable natural environment, surrounded by five of Sudbury's 330 freshwater lakes, a mixed boreal forest and breathtaking nature trails. All this in the heart of the city, 10 minutes from the city's downtown core. The University is nearing the completion of a $51 million dollar transformation that is updating its infrastructure and teaching facilities, including 25,000 sq ft. of construction devoted to classrooms, teaching labs, new student gathering spaces, a vibrant Welcome Centre and a new Indigenous Sharing and Learning Centre.

Celebrating its 50th anniversary in 2010, Laurentian University has become one of the fastest growing universities in Canada, its enrolment having gone from 6,000 to almost 10,000 in the past decade (6,510 full-time + 3,000 part-time students). Laurentian has the best post-graduation employment rate in Ontario: 95% of LU graduates find jobs within six months of graduating, and 97% are gainfully employed following completion of their studies.

The University also has an impressive research track record, having secured more than $250 million in research income in the past decade. Since 2005, Laurentian has opened new schools of Medicine and Architecture, in each case a first in over 40 years. In 2015, Laurentian was one of five university collaborators in prize- winning neutrino research led by Dr. Arthur McDonald at Sudbury's SNOLAB, which received the 2015 Nobel Prize in Physics.

The McEwen School of Architecture was built in the heart of downtown Sudbury, intentionally placed there as a catalyst for urban revitalization, adding another layer of meaning to the project of the School of Architecture. This revitalization will add over 450 students, faculty, and staff to the downtown core. Ironically, the School's conference room looks across the road to The Grand Theatre where the Laurentian University of Sudbury/Université Laurentienne de Sudbury began before building the current campus in the 1960s.

2. Institutional Mission

Laurentian University's slogan is AMBITIOUS. BOLD. DRIVEN.
The University has a Purpose Statement in place of a Mission Statement to:

"Offer an outstanding university experience, in English and French with a comprehensive approach to Indigenous education, that prepares students as agents of change by stimulating them to ask new questions, to challenge what we know, and so empower them to create innovative solutions for future local and global issues."

3. Program History

The community's initial vision for a School that would respond to the particular economics and cultures of the north was in place from 2007. What makes the School's curriculum unique (i.e. cutting-edge) in Canada is its tricultural mix of students and faculty (Francophone, FNMI, and Anglophone), beginning with our first year. As well, the incorporation of Elders-in-residence, focused courses in wood design, a unique co-op program in industry as well as in related design fields, and the continuous focus on indigenous architecture and indigenous knowledge all contribute to an architectural education that studies the local (Sudbury and environs) as well as the global (First Nations, Scandinavia, Germany).

For example, Dr. Tammy Gaber's student ice hut project was recognized with an Honourable Mention at the "International VELUX Awards 2014" ceremony in Vienna in the fall of 2014. Students have already had the opportunity to go with faculty members on structured travel-study trips to Bergen, Norway (where they won First Prize at the Bergen International Wood Festival in 2016) and Dinkelsbühl, Germany, which contribute towards becoming part of a global "Northern" network in design and architecture.

Within its first two years, the School of Architecture has been actively engaged in "Community Responsiveness" by being very active in the downtown community as well as partnering with several community groups in the Greater Sudbury area including: Rotary Park, Dynamic Earth, Wahnapitae First Nation (WFN), and Kivi Park. Community design partnerships in other northern communities include: Riversedge Developments (Mill Square) in Sault Sainte Marie, Powassan & District Union Public Library in Powassan, Maison Boréal Inc. aging-in-place housing in Chapleau, and a community design centre in Henvey Inlet First Nation. Each of these community partnerships is consistent with the mandate of the School of Architecture, to educate students from the north, particularly Northern Ontario, as well as to partner with local groups in order to respond - through real design studios - to a variety of community needs and resiliencies.

The renaming of the School from Laurentian Architecture Laurentienne (LAL) to the McEwen School of Architecture occurred in 2016. As a result, all of our earlier references to LAL have been rebranded accordingly. In fact, the School project was first titled the Northern Ontario School of Architecture (NOSoA) by the community, followed by Laurentian Architecture Laurentienne (LAL) once it was endorsed by the University, and finally McEwen School of Architecture, voted on by the LU Board of Governors. References to all three names may be found in early literature and promotion materials, including on-line documentation.

4. Program Mission

The Project Mission, from the School of Architecture's "Project Charter" (2012), stated:
The Laurentian University School of Architecture, or, Laurentian Architecture Laurentienne (LAL), is the first new architecture school to open in Canada in over 40 years. LAL will become a ground-breaking academic institution that, through activism, research, and engagement, will develop new knowledge and innovation positively altering the way people of northern communities live, learn and grow.

The Project Steering Committee also engaged in writing an "LAL Sustainability Manifesto" to guide the design of the building as well as inform the School's pedagogy. That document states:

The mission of the Laurentian School of Architecture (LAL) is, first and foremost, to educate succeeding generations of architects to engage in the design of sustainable buildings and communities within the geographic and cultural context of the North. Through this process of exploration and discovery, the school shall foster an ongoing dialogue with its civic and academic community so that ideas about sustainability reflect emerging realities.

In both cases, it has been clear from the onset that the mission of the School is to educate and promote northern culture, particularly that of Northern Ontario. This marked the original vision of the School by the wider community; it is a vision that has guided us in the formation of the curriculum as well as in the formation of community partnerships in the School's first four years. This mission is also supported by the Francophone and Indigenous peoples that are part of the School, the city and the wider region. We conceive of the McEwen School of Architecture as a "gateway to the north," from Sudbury to the shores of Hudson Bay and beyond.

The philosophy of the McEwen School of Architecture (MSoA) is founded upon pride of place. This philosophy embraces the resiliency of northern people and the unique beauty of the northern Ontario landscape. Located at the crossroads of the City of Greater Sudbury in the downtown core, the McEwen School of Architecture marks Canada's first new architecture curriculum in over 45 years. The McEwen School of Architecture is an unfolding experiment in emerging pedagogies and diverse cultures. Our unique architecture program highlights design and culture for northern Ontario with an emphasis in developing expertise in wood.

The study of Architecture generally raises our awareness of the holistic and aesthetic nature of the design of the built environment. Laurentian's Bachelor of Architectural Studies (BAS) undergraduate program focuses on four main areas: Design, Culture, Technology and Professional Practice. Architecture students take electives on the main Laurentian University campus, while Design Studio and other mandatory BAS courses are held at the McEwen School of Architecture's downtown site. Design Studio courses challenge students' creativity through the application of practical building solutions for northern climates, taking into account cultural sensitivities, diverse histories and community profiles. Our French, English, Métis, and Anishinabek faculty and student body is unique to Laurentian's tricultural mandate; conducting design studios in both French and English. As well, working with Elders-in-residence and guests who are First Nations and Métis, provides a further array of cultural and educational perspectives. Finally, the four architecture buildings that comprise our downtown facility (costing over 30 million) complete an innovative complex that is both intentionally didactic and environmentally sustainable. The buildings are our first teaching tools and their design has influenced the formation of the School's curriculum.

5. Program Action Plan

Building upon our existing pillars of RESPECT, INCLUSION and COMMUNITY, by 2022 the McEwen School of Architecture aspires to:

- Create an internationally recognized architectural "Hub" as an umbrella for teaching, research and community engagement;

4.5 Visiting Team Report from the Previous Visit

- Establish leadership in Design-Build culture, hands-on active learning, and collaborative research-creation;
- Strengthen our capacity for "Community responsiveness" in northern and remote environments through community partnerships;
- Become the leading architecture school in Canada for indigenous design;
- Become the leading architecture school in Canada in new wood technologies in the boreal forest region;
- Enrich Francophone culture by remaining the only School of Architecture outside of Québec to offer design studios, electives and co-operative placements in French.

Appendix B: The Visiting Team *(names & contact information)*

VISITING TEAM

Marc Boutin Educator **CHAIR**
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Cell: (613) 697-0835
Email: mmohandsaid@cacb.ca

Appendix C: The Visit Agenda **(attach final site visit Agenda)**

Saturday, March 10, 2018

PM (downtown Sudbury)

4:00 pm	Visiting Team arrival & check-in at the Radisson Hotel, downtown Sudbury (MSoA will arrange pick-up of VT Members arriving in Sudbury airport at 16:06)
6:00	APR review and assembly of issues and questions (at Radisson Hotel)
7:00	Short meeting with MSoA Director, Dr. David Fortin (at MSoA) + Introduction to the Team Room and "Welcome Package" (key access, etc.)
8:00 pm.	Team only dinner – Durham Social Restaurant, 78 Durham St.

Sunday, March 11, 2018

AM (downtown Sudbury)

8:30 am	Visiting Team working breakfast, Radisson Hotel Restaurant
10:00--11:00	Entrance meeting with MSoA Director, Dr. David Fortin at McEwen School of Architecture
11:00--11:45	Continued review of APR in Team Room
11:45--12:20	Tour of the McEwen School of Architecture facilities with Dr. Terrance Galvin

PM (at MSoA)

12:30--1:45 pm	Visiting Team lunch with Program Administrators at Hardrock 42 Gastropub,117 Elm St.
2:00 – 3:30	Entrance Meeting with MSoA Faculty
3:30--4:30	Entrance Meeting with Dean of the Faculty of Science, Engineering, and Architecture, Dr. Osman Abou--Rabia (MSoA Telegraph Conference Room)
4:30--6:00	VT Working Session in Team Room
6:30	Team only dinner – Hourglass Restaurant, 183 Cedar Street
8:00 pm	VT Working Session in Team Room

Monday, March 12, 2018

AM (at LU campus & MSoA)

8:00--9:00 am	Visiting Team working breakfast with MSoA Director
9:00--10:00	Meeting with VP Academic & Provost, Dr. Serge Demers
10:30--11:30	School-wide meeting with all MSoA students

11:30--1:00 pm	Deliberations and development of draft CVTR

PM (at MSoA)

1:00-2:00	Meeting with Support Staff, lunch in Team Room
2:15-3:00(campus)	Meeting with Dean, Faculty of Grad. Studies (FGS), Dr. David Lesbarrères
3:00--5:00	Deliberations and continued development of draft CVTR
5:00	CACB Reception with faculty, administrators, local practitioners and coop employers
6:30 pm	Team only dinner, Oscar's Restaurant, 86 Durham Street

Tuesday, March 13, 2017

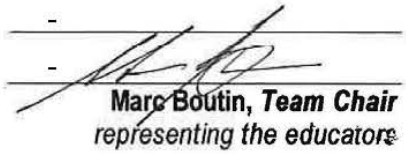
AM (at LU campus)

8:30	Check out at Radisson Hotel (leave baggage at the hotel)
9:00	Team breakfast & exit meeting with MSoA Director, Dr. David Fortin (Radisson)
10:00	Exit meeting with Dean of the Faculty of Science, Engineering, and Architecture, Dr. Osman Abou-Rabia
11:00	Exit meeting with VP Academic & Provost, Dr. Serge Demers

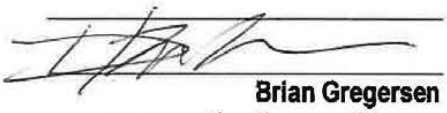
PM

12:00	Visiting Team departures from Radisson Hotel (lunch at airport) (MSoA will coordinate taxi to Sudbury airport for 1:35 pm flight)

V. Report Signatures



Marc Boutin, *Team Chair*
representing the educators



Brian Gregersen
representing the practitioners

Mourad Mohand-Said
representing the CACB-CCCA