

MOMENTUM

MOHAWK COLLEGE COMMUNITY MAGAZINE

FALL 2018

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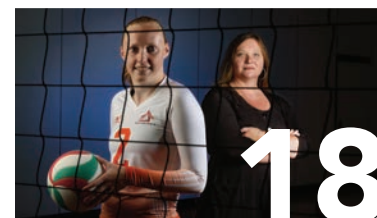
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ABOUT: Mohawk College educates and serves 32,500 full-time, part-time, apprenticeship and international students at three campuses and City School locations at the Eva Rothwell Resource Centre, the Central Public Library and the City School mobile unit in Hamilton, Ontario. Mohawk is among the top 25 colleges in Canada for applied research activity and has been named among Canada's greenest employers for 5 years and ranked third in North America for associate colleges for the Advancement of Sustainability in Higher Education's 2018 Sustainable Campus Index. **VISIT:** mohawkcollege.ca or mohawknewsdesk.ca to learn more. **COVER:** Image of Mohawk's Paul Armstrong, Vice President Academic and Hamilton Health Sciences' John Parker, Director of Interprofessional Development. **LOCATION:** McMaster Children's Hospital, Hamilton, Ontario.



LEARNING. LIVING. LEADING.

THE JOYCE CENTRE FOR PARTNERSHIP & INNOVATION

Mohawk opened The Joyce Centre for Partnership & Innovation this fall. The building incorporates leading-edge energy harvesting and conservation technologies and techniques and at 96,000 square feet, a living lab for an additional 1,000 students in Engineering Technology programs.

FROM THE PRESIDENT

If you want to go fast, go alone.

If you want to go far, go together.

This African proverb perfectly captures our approach to partnerships and collaborations at Mohawk College. Building and strengthening connections with employers is a strategic priority for Mohawk. By going together, our students will go far in their careers.

Our college is truly fortunate to be working with more than 1,000 partners, from startups and non-profits to mid-size companies and our region's largest employers. Our partners create amazing opportunities for our students to apply their skills and gain invaluable experience through placements, co-ops and internships. At any one time, there are dozens of partners working with our students and faculty on applied research, capstone and community projects. Our partners serve on Program Advisory Committees and our Board of Governors, helping to ensure we remain relevant and responsive to the needs of employers and the communities we serve. And our partners put our graduates to work, offering incredible career opportunities close to home, across the country and around the world. Whatever the collaboration, we always look for opportunities that will benefit both our students and our partners.

This issue of *Momentum* celebrates our mutually beneficial and hugely successful partnership with Hamilton Health Sciences, which has Ontario's largest hospital-based workforce and is among Canada's top health care research institutions with an international reputation for excellence. As you will read in this issue's cover story, Hamilton Health Sciences' partnership with Mohawk extends far beyond providing clinical placements for students in our health programs. And we are working together to create new and expanded opportunities for even more students who are passionate about building stronger and healthier communities.

This issue also features a story about a student-designed app that offers peace of mind to parents who have newborns in neo-natal intensive care, an overview of Mohawk's newest applied research centre focused on energy and power, and an inspirational profile of new graduate Natasha Mando. You will also learn about our 50-year plan to renew, grow and evolve our campuses. Our newly opened Joyce Centre for Partnership & Innovation – which is Canada's largest and our region's first zero carbon institutional building – offers a preview of what is in store for students and college partners. ■■■

Regards,

Ron J. McKerlie





Julia Hansen, Manager of Planning & Programming Services

CAMPUS MASTER PLAN TO PROVIDE A LONG-TERM VISION FOR THE FUTURE

A plan must consider the future of everything from architecture to energy

A new campus master plan will guide the development of Mohawk College past its 100-year anniversary in 2067.

“Our campus master plan will make sure all opportunities and possibilities are explored and maximized over the long term,” said Julia Hansen, who was hired in March 2017 to guide the plan, which covers Mohawk’s Fennell, Stoney Creek and McMaster campuses.

The new campus master plan will replace one from 2006 that guided Mohawk’s ambitious renewal of labs, classrooms and student spaces, along with the transformation of the main campus with the construction of the David Braley Athletics & Recreation Centre, the Cummings Library & Collaboratory, McKeil School of Business, and most recently The Joyce Centre for Partnership & Innovation.

The 2018 campus master plan draft vision, underscored by eight principles, calls for a campus that is – “a welcoming and vibrant place of education” and “learner-centred, transformative and future ready.”

The campus will support walkability, recreation, accessibility, sociability, diversity and healing and

will “develop as a key city destination and a hub for the community.”

Creating the master plan, which covers immediate, short-term and 50-year build-outs, has involved much consultation with students, faculty, staff and the community, said Hansen.

Mohawk has expressed its interest in property to the north of the Fennell Campus that has been declared surplus by Infrastructure Ontario.

“Opportunity for any new land makes it even more important to bring guidelines and frameworks to future campus development... We are the stewards of this land.”

Hansen expects to bring the draft plan to the Board of Governors in February 2019 for approval. Once implemented, all new capital projects, additions and renovations will be examined through the plan’s framework.

“Mohawk is already a leader and the timing is right to step back and think about things with a broader perspective and over longer timelines,” said Antonio Gomez-Palacio, a principal in master plan consultants DIALOG. “This is about creating a vision of a great campus.” ■■■

RETROFIT AIMS TO UPDATE AGING BOILER SYSTEM

Mohawk College will renew its central plant heating system at the Fennell Campus to significantly move the needle on the realization of its ambitious plan to reduce greenhouse gas (GHG) emissions.

The system generates hot water, which is distributed via the campus district energy network and used for building heating and hot water. Heating water through burning of natural gas accounts for close to 100 per cent of Mohawk’s annual direct carbon footprint and utility budget. Mohawk is targeting a 10 per cent reduction in direct GHG emissions by renewing the campus-wide heating system.

The retrofit projects include installing high-efficiency boilers, pumps and motors, along with electrical battery storage, building automation systems and real-time energy monitoring metres.

Mohawk’s new plant design also includes a proposed electric boiler that would allow better matching of supply of heated water with the demand for heat, and dynamic switching between electrical and gas fuel sources.

“Together, the improvements will achieve GHG reductions well beyond otherwise small inconsequential gains possible under the current heating system,” said Steve Jankus, Energy & Automation Systems Specialist.

Battery storage will allow for charging during the evening, when electrical rates are lower, or over the weekend, when surplus solar-generated power is available. That energy will offset the campus’s daytime electrical demand, saving a projected \$250,000 in utility costs.

Steve Jankus, Energy & Automation Systems Specialist

“The integration of the new central plant boilers, battery storage and control system with The Joyce Centre for Partnership & Innovation solar photovoltaic and the proposed electric boiler will serve as a living lab that will allow our students, academics and operations staff to better understand the relationships between fuel type usage, system efficiencies and greenhouse gas reduction,” said Tony Cupido, Chief Building & Facilities Officer.

The college has been a leader in campus sustainability since its first environmental management plan in 2007. A new Environmental Management Plan (EMP) is under development but Mohawk is committed to a minimum reduction of 80 per cent (11,000 tonnes) in direct GHG emissions by 2050. ■■■



Wayne Ostermaier, Dean of the Marshall School of Skilled Trades & Apprenticeship and Apprenticeship Engagement Specialist Louise Stallings

PILOT PROJECT FOCUSES ON APPRENTICESHIPS

Mohawk to provide extra support for apprentices and those who hire them

A pilot project aims to make Mohawk College a one-stop province-wide resource and advocacy centre for apprentices.

Mohawk trains between 2,700 and 3,000 apprentices in 17 trades each year, making it one of the largest training delivery agents in the province.

"We set a goal with this project three-and-a-half years ago to provide support to apprentices from start to finish, to help them secure registration and to complete their required levels of training," said Wayne Ostermaier, Dean of the Marshall School of Skilled Trades & Apprenticeship.

The Province of Ontario recently implemented a new strategy to strengthen the apprenticeship system. Mohawk has taken a leadership role to help apprentices navigate the apprenticeship system successfully through the addition of team member Louise Stallings, Apprenticeship Engagement Specialist.

"We as a college felt it was important to provide extra support to apprentices, similar to what we offer to our full-time students," said Ostermaier.

"Our vision is to be a community hub that supports the apprenticeship system and to make services

more accessible and timely. The idea is to function as a heart for services."

That approach is the first of its kind. The hub system will also support employers, many of them small or medium-sized operations without dedicated resources for apprentices.

Apprentices must complete a required number of On-the-Job Training Hours along with School Training Hours to successfully complete their apprenticeship.

During the eight-week in-class training at Mohawk, Stallings visits classrooms to answer questions, helps apprentices to access resources, and offers one-on-one guidance.

"We want to strengthen, connect and empower apprentices," said Stallings.

"It's important to remember that an apprenticeship can be a building block to other career paths like opening a business or trades management."

The college is also focused on raising awareness about apprenticeships among youth, women and Indigenous communities. ■■■

"I DON'T WANT DEAF PEOPLE TO THINK THEY CAN'T DO IT."

Nursing graduate is a trailblazer and inspiration to others

Natasha Mando refuses to let the fact she is Deaf stand in the way of her dreams. She recently graduated from the Practical Nursing program at Mohawk College, receiving the Leadership Accessibility Award for 2018.

As the winner of that award, she is described as a "proactive student who demonstrates leadership qualities in her determination and drive to be successful in her program and is an inspiration to others."

There were some challenges, including using a stethoscope.

"There always has to be the first person to do something. I knew I could be that trailblazer so I was not going to give up," Mando said through a sign language interpreter.

"I don't want Deaf people to think they can't do it. I want to inspire Deaf people and inspire others to work with Deaf people as a team."

She found an answer to the stethoscope challenge in a Colorado-based company called Thinklab. It produces stethoscopes for hearing impaired clinicians, including one Mando used, that displays the sound of a patient's heart and lungs visually.

She practised extensively with her instructors to learn to interpret what the sounds of crackles and wheezing look like in colour and shape on the display. She also learned to take blood pressure readings by watching the movement of the needle.

Mando says she found great support from her instructors and on her clinical placements at Hamilton Health Sciences' Juravinski and General hospitals.

"The staff were so great to me, especially at the General. My preceptor started learning American Sign Language right away. I felt very welcomed and included," she said.



Natasha Mando

She saves particularly glowing appreciation for Barbara Toohey, Mohawk's faculty lead for the Practical Nursing program.

"She was so supportive of me and always had my back."

Mando, 27, says life as a Deaf person in a hearing family and a hearing high school made her a master at communicating through gesturing and body language. That was especially handy with hearing-impaired patients or those who didn't speak English. "Anyone who has faced barriers understands each other."

"I really pushed myself to get the most out of my clinical placements and had to learn to step out of my comfort zone in order to provide the best care for the patients I was working with."

She has previously explored early childhood education, accounting and health, wellness and fitness programs at Mohawk but truly found her path in nursing, she said. Mando has passed her nursing exams and is now awaiting her licence.

Mando was a confident advocate for herself, said Maria Riva, Associate Dean of Nursing, and that helped faculty find ways to adapt to her needs.

"As much as it was a learning path for her, we also learned. As a team, we embraced it. She's moving on to the next chapter of her life and we are very proud that we could be part of her journey." ■■■

MORE THAN JUST HEALTH CARE

Mohawk and Hamilton Health Sciences expand learning opportunities for students from non-health care programs

Mohawk College health care students have been gaining critical clinical experience at Hamilton Health Sciences (HHS) sites for decades. They are now joined by students doing placements in hospitals from a range of other programs, including business, computer programming, marketing and media.

Over the last couple of years, the two organizations have been taking a systematic look at broadening the experiential learning partnership beyond traditional health care disciplines.

The possibilities are limitless, says Paul Armstrong, Mohawk's Vice President Academic.

"HHS is a large, complex organization and one of the biggest employers of Mohawk graduates. The breadth of experience that HHS can offer our students is very wide. We have joined with HHS in

applied research projects over the last five to six years and as we grow our capacity, HHS has needs and problems that we can help solve," he said.

Close to 3,000 students in 35 programs do placements each year at HHS. Their work adds up to close to 188,000 hours annually and Mohawk students report extremely high satisfaction rates about their experiences at HHS.

"We count on HHS and other partnerships to provide placements for so many of our core programs that require experiential learning opportunities. That's really core to what we do," said Lori Koziol, Dean of the School of Health.

Sometimes Mohawk approaches HHS when it is developing curriculum that requires a placement. Other times, HHS comes to the college with a challenge it thinks Mohawk could help tackle, she said.

"It's a very robust, collaborative partnership. Both sides are very open-minded and open to innovative opportunities."

That is opening a wide range of emerging opportunities in fields of study not traditionally associated with a hospital.

"We've been very proud of what we've been able to provide in quality experiential learning," said John Parker, Director of Interprofessional Development at HHS. "It's a two-way benefit. Students are provided what we think is a world-calibre experiential learning opportunity and as they learn in clinical settings, they are contributing to our staff's efforts in delivering quality care."

The students bring fresh new perspectives, says Parker. "Health care students bring great value and we knew non-health care students could make similar contributions. We are very energized by the results of some pilot projects over the last two years in areas such as computer programming, business analytics and public relations."

None of this would be possible without one of Canada's best teams of HHS clinical educators, managers and staff, said Parker. Staff across HHS were asked to identify challenges that students could

Paul Armstrong, Mohawk's Vice President Academic, John Parker, Director of Interprofessional Development at Hamilton Health Sciences and Lori Koziol, Mohawk's Dean of the School of Health

help solve to improve quality of care and patient experience. Parker was flooded with ideas.

One of them was training for hospital staff around the handling of toxic agents such as chemotherapy drugs and radioactive isotopes.

The project, led by Barb Scott RN, Mary Millo RN, Caroline Fellows-Smith RN and Diana Zelinski of HHS Interprofessional Development, saw Mohawk computer programming students develop a gaming-based app to help staff apply the regulations and optimize compliance in a more engaging way.

Providing a diversity of experiences opens eyes to the possibilities in health care, says Parker.

"When they applied for computer programming, not one of them had considered health care as a possible sector for employment."

Digital media students have produced a number of video productions for HHS, including one that highlights an innovative collaboration with Mohawk in which registered practical nurses employed at HHS can study to become registered nurses while still working full time. This project was led by Dianne Norman, HHS Manager Student Affairs.

"The digital media students created a documentary focusing on one student. It's extremely professional and highly polished and we have been showing it over and over again. We are very proud to show it," said Parker.

This semester, computer programming students will work with the infectious disease teams at HHS and St. Joseph's Healthcare, under the direction of Dr. Eva Piessens, to create an app that will consolidate a number of databases into one point of entry. It's a huge project that will have the potential to save critical time and resources when diagnosing and treating infectious diseases, said Parker.

"Mohawk is very nimble and always willing to try something new... The college comes to mind automatically when I think about new opportunities. It's a big part of the community that is wrapped around HHS."

HHS will partner with animation students to create a video focused on preventing blood clots after surgery, a project that will be led by Charissa Cordon RN, HHS Chief of Nursing Practice.

"There is great interest around it. The finished project is a huge opportunity to reduce risk," said Parker.

Altogether, 12 projects are underway across HHS and across a wide spectrum of programs. "Innovative discussions are ongoing with Mohawk to leverage the model very strategically. We have not tapped the full potential."

There are so many opportunities that a strategy is required to focus on priorities, said Kristen Krull, Vice President of Quality and Performance and Chief Nursing Executive.

"We have to be purposeful around what we want to support and focus on," she said.

"We are a sophisticated and complex organization. We can meet learner needs in a wide variety of ways.

We are exploring how to bring different disciplines together so that people of different thinking and backgrounds come together to push the limits."

Mohawk and HHS are also working on a structure to govern the commercialization of products, technology or innovation that results from joint projects and to streamline the connection of HHS with Mohawk students.

"We are looking at creating a different understanding of how we want to work together in the future," Krull said.

"Mohawk is very nimble and always willing to try something new... The college comes to mind automatically when I think about new opportunities. It's a big part of the community that is wrapped around HHS."

Both organizations are focused on breaking down barriers and injecting themselves more into the community, said Armstrong. "So we are exploring what else we can be doing together."

Senior leaders of Mohawk and HHS spent a full day together "in a forward visioning process to define the art of the possible," said Armstrong. A steering committee and working group oversees the institutional partnership, which also includes professional development and mentorship opportunities for staff at both organizations.

"We would not exist the way we do or make the impact we do without HHS. The work we do with them is so critical and the fellowship we have with them is truly a pleasure."

The partnership only benefits from the connections at the senior leadership level between the two organizations, led by former Mohawk President Rob MacIsaac, who is now President and CEO of HHS, and Ted Scott, HHS's Vice President Research & Chief Innovation Officer, who held a similar role at Mohawk.

"Rob fully understands the College and its capabilities and Ted oversees solutions-based research that is new to the hospital sector," said Armstrong. "The relationship runs very deeply, including Brenda Flaherty (now retired Executive Vice President and Chief Operating Officer) and Kirsten Krull. It confirms we have the right people to continue to grow the relationship and take even more risks." ■■■

Heston Tobias

HOSPITAL PLACEMENT LANDS BUSINESS GRADUATE A JOB IN HEALTH CARE

Heston Tobias was tasked by Hamilton Health Sciences (HHS) to find a smoother path for Mohawk's non-health care students to hospital placements and it earned him a full-time job.

Tobias was on a placement during his graduate program in Business Analysis at Mohawk and worked under Dianne Norman, Manager of Student Affairs and Academic Relations at HHS.

"HHS brings in students from many post-secondary schools throughout Canada and for the ones from clinical backgrounds, it's straightforward to find a match. But for people like me, from non-clinical backgrounds, it's a bit more difficult," said Tobias.

Norman believed students with diverse skill-sets could be useful in clinical settings but that a process was needed to assess needs and gaps and how they could be addressed. Tobias, after countless interviews with people from across HHS, built the framework for an algorithm.

"It could be that the neurology department has a problem that needs a business analyst but they might not even know what a business analyst is," said Tobias.

"Dianne, and John Parker gave me so much confidence to spearhead this project. I was exposed to the culture of HHS. Everyone was so willing to talk to me. I realized I wanted to land a job here."

Parker says Tobias, who holds an English degree and a masters in cultural studies and critical theory, both from McMaster, did a "remarkable job" on the project.

A week after his graduation from Mohawk he was hired by the HHS HITS eHealth Team as a Transformation Change Analyst. He's part of a group that creates and implements e-health solutions across the Local Health Integration Network.

"That just shows the value of these experiential learning experiences," said Parker. ■■■



Karen Beattie

MOHAWK-DESIGNED APP HELPS EASE ANXIETY FOR NICU PARENTS

App draws on parents' experiences

Karen Beattie knew there was a way to prepare parents for what to expect in the neo-natal intensive care unit (NICU). She had been in their shoes with her son Freddy, who was born at almost 29 weeks, weighing just 830 grams. Freddy spent 87 days in McMaster's NICU four years ago and is now a feisty, active little boy.

"It was a frightening and overwhelming environment," said Beattie, a Director of Research in Rheumatology and an Associate Professor at McMaster. She shared her story with a group of Mohawk software development students who began the work of developing an app geared to NICU parents.

Freddy started in Level 3, where the most critical babies are cared for, before advancing to Level 2.

"It was busy and noisy, especially in Level 2. The first time my husband went there, he didn't want to go back."

Emotional parents are given a lot of information from a range of health care professionals, said Beattie. "For me, it was all a blur."

Parents who don't speak English as a first language or have different levels of education would face even more challenges, she said. "It is so scary and intimidating. If the app can make it easier, that's a whole lot better for families."

The yet-to-be-named app allows parents to document and track information, link to helpful resources and frequently asked questions, track NICU educational events and explore pictures and explanations of the equipment and procedures found in the NICU.

"The partnership with Mohawk has been a really rewarding experience... We often have nursing students in the NICU or respiratory therapy students but this opened our eyes to the chance to tap into other students."

"They could access the information before their baby is in the NICU. That would have been very reassuring for me ahead of time," said Beattie.

For two-and-a-half years, Beattie has served as a volunteer parent advisor to the NICU team and has helped enact a number of projects aimed at improving the family experience. One of the ideas was the app. Clinical educator Maddie White took the idea to John Parker who reached out to his connections at Mohawk.

"The partnership with Mohawk has been a really rewarding experience," said White, a graduate of the Mohawk-McMaster Bachelor of Science in Nursing program. "We often have nursing students in the NICU or respiratory therapy students but this opened our eyes to the chance to tap into other students."

Mohawk's software development students listened to parents and staff to understand what was needed

and then built and tested an app that would work within the hospital's IT environment. It can be modified to adapt to changing technology.

The first group of Mohawk students who built the foundation for the app are now graduated and a second cohort will finish it this year. Professor Joe Varrasso, who oversees the third-year Software Engineering Project course, says it's an innovative, humanitarian app and he's grateful the graduating students "have generously allowed us to use their work and continue with the project."

Former software development student Gurpreet Punj, who worked on the app with four others, says it was "inspiring" to learn about the human need for the app. "It really got us motivated."

"That we could make something that would benefit sick babies and their parents feels amazing," added Wanming Hu. ■■■



Gurpreet Punj, Nenad Skocic and Wanming Hu



Research Team: Tim Fricker, Pamela Ingleton, Michelle Turan, Melissa Gallo, Bobbijo Sawchyn (Not in picture: Nicole Redmond, Megan Waltenbury, Wayne Poirier)

BECOMING A LEADER IN STUDENT SUCCESS

Centre focuses on how to increase graduation rates at Ontario colleges

Mohawk College is delving into what determines student success and how postsecondary institutions can ensure more students graduate, in the one-of-a-kind College Student Success Innovation Centre (CSSIC).

"We believe we can lead the province in student success research and share that knowledge broadly," said Dean of Students Tim Fricker.

Mohawk set a goal to improve retention and graduation rates a number of years ago that permeated every aspect of the college, he said. Many strategic initiatives met with significant success, including a shift in approach to probation letters and student goal-setting. The next step was figuring out what worked and why in order to bring real evidence to decisions and practices that can eventually be rolled out to other colleges.

"We were looking at who's staying, who's leaving, how can we can boost success."

If early red flags are responded to quickly with targeted interventions, it can turn a student's

experience around and set them on a path to success, said Fricker.

"Those who are most at risk often register late, have barriers in their way or come from marginalized populations. There is an equity piece here. We want to support faster those needing help the most. This is the right thing to do because it levels the playing field."

After Mohawk secured a number of research grants through the Higher Education Quality Council of Ontario, the Ministry of Training Colleges and Universities awarded \$650K to create a student success research centre. The CSSIC opened in April 2017.

"I couldn't have dreamed big enough to imagine such a centre at the college," Fricker said, crediting Dr. Wayne Poirier, Vice President, Student & Alumni Services, for the concept.

"If you have a program to improve student success, we want to try it. We are seeking out answers to problems by testing solutions scientifically." ■■■



Jomar Gacoscos

THE POSSIBILITIES ARE ENDLESS

A look at where Mohawk is going with augmented and virtual reality

Jomar Gacoscos is focused on bringing augmented and virtual reality (AR/VR) into health care settings to improve patient care and outcomes.

A graduate of Mohawk's Occupational Therapist and Physiotherapy Assistant program, Gacoscos is working on two AR projects this fall with Hamilton Health Sciences.

One aims to streamline the return-to-work process for patients, while the other will help prevent falls in hospitals and the community.

He's been interested in coding since high school and did it mostly as a hobby until a placement at the Regional Rehabilitation Centre at HHS while studying at Mohawk.

"I saw huge demand for technology in the assessment and treatment of occupational therapy patients, like using virtual reality to test reflexes. To see therapy and technology converge in that way motivated me to develop my tech skills," he said. "It's amazing how much Mohawk is investing in AR/VR innovation."

His mentor Stewart Muirhead, owner of 3D Agency, recommended Gacoscos to Tracey Kadish, Mohawk's Associate Dean Business and

Media Graduate Studies, Applied Research and Entrepreneurship. Mohawk has secured 22 Ontario Centre of Excellence technology vouchers valued at \$10,000 per company for various projects including AR and VR projects.

Kadish was immediately impressed by Gacoscos, who has also helped a Niagara winery create a location-based AR experience.

"He's so engaged and passionate about the technology."

The college has hosted demonstrations for business leaders who may not understand the uses of AR and VR or how Mohawk can help with prototypes and market applications.

"The possibilities really are endless. It's useful in any sector, education, supply chain, manufacturing, health care, training, retail, anything you can think of," said Kadish.

"I am excited about this and want to bring this new craft to the students so that we can nurture with the skill-sets needed to work in this field."

In Fall 2019, Mohawk will launch a new Virtual Reality Multimedia graduate program. The program will be the first of its kind in Canada. ■■■

TAKING THE ROAD LESS TRAVELLED

Dean of Engineering Technology & Aviation took an unusual path to his role at Mohawk College

David Santi had settled into a nice life in Arizona doing business consulting when Mohawk College urged him to take on the role of Dean of Engineering Technology & Aviation.

"My answer was, 'I will find you someone to do it.'"

But thanks to the urging of his wife, he changed his mind.

"She pointed out that this is a place I can proudly finish my career."

Now, just over a year into his post, Santi knows he made the right choice.

"I've gotten more out of being here than Mohawk will ever get," he said. "This is a place that has all the pieces in place. The people are so smart and they want to work together because they are all focused on students."

Santi had worked extensively with faculty, deans and college leaders during his 25-year career at ArcelorMittal Dofasco, including creating a first-of-its-kind apprenticeship program and a retraining program for 600 laid-off employees.

"I almost felt like I worked here at times. I selfishly used Mohawk over my entire corporate career."

Mohawk identified the first priority being guiding the planning and development of The Joyce Centre for Partnership & Innovation. He's also tasked with setting a vision and structure for the department and growing industry connections.

Santi grew up in Hamilton and Burlington and studied forestry and mobile equipment at Sanford Fleming College. He did an apprenticeship before going to Western University for technological studies and teachers' college. He couldn't land a full-time teaching job.

So he took a job in the maintenance department at Dofasco, where both his father and grandfather had long careers. Santi soon found himself working on quality and process improvement projects in the midst of downsizing. Then human resources seconded him.

"I went kicking and fighting. In some ways, I wasn't sure if it was the end of my career or the beginning of a new one."

Turns out it was a beginning. He is a voracious reader of organizational and leadership books and talked his boss into letting him examine companies that were leading in adapting to change.

"I realized we had to do things differently. I learned that it all had to be built around a highly skilled, competent workforce."

Santi then went to work for Suncor Energy in Calgary, where he was made Director of Learning and Competency Development.

"The CEO said to me that every time he turned around something didn't work or something was going wrong. It all came down to someone not knowing how to do their job."

Mohawk's Dean of Engineering Technology & Aviation David Santi

Santi, a father of three daughters, says his route to becoming a dean hasn't been traditional, but his strength is building partnerships. He wants to bring jobs to Hamilton, especially in aerospace.

"I love Calgary but if I were opening a business, Hamilton would win hands down."

Why did you take this job at Mohawk?

My time in Calgary showed me how exceptional Mohawk is in terms of connection to industry, the partnership with McMaster and its commitment to sustainability. When I went to Suncor, the college out there didn't get me. They didn't understand what I wanted. I thought all colleges were like Mohawk. I learned they aren't. I flew Mohawk people to Calgary to help solve problems.

You've been in your role just over a year. What is the biggest challenge?

There is so much we could do, so it's trying to balance the opportunities and understand what ones we should go after. We can't be everything to everybody but it's hard to say no. Attracting

the right faculty is critical, too. If we can do that better than anyone else, then everything else is easy.

What does The Joyce Centre for Partnership & Innovation represent for Mohawk?

There will be a lot of zero carbon buildings in the next 10 years and we can inform the world with the data we collect here. And our academic programs will ensure competency in building these buildings. People said this building was impossible. I want more impossible. Mohawk took a big risk on new technology that had never been tried on this scale in Canada and showed we were up to the challenge.

Is there anything that has surprised you so far about Mohawk?

At a table of deans and vice presidents, there are no big egos. It's amazing to say that, but it's true. I don't think there is anything we can't do.

What's next for you?

The only job I haven't been able to figure out, but I need to, is the job called retirement. It stresses me out. I'm not sure what it means to not be adding value. ■■■



Varsity volleyball athlete Amye Pellow and Michelle Ball, Director of Student Engagement and Athletics

WHY ATHLETES CHOOSE MOHAWK

Excellent coaches and great facilities give Mohawk the competitive edge

Varsity volleyball athlete Amye Pellow was considering three colleges and three universities as she neared graduation from her London, Ontario high school.

She was focused on nursing and all six schools had excellent academic and athletic programs. Pellow chose Mohawk College because it stood out as the best fit.

"It just drew me right in," said the second-year Bachelor of Science in Nursing student. "I definitely made the right decision. Athletically, I couldn't be happier and academically, I'm 100 per cent sure I made the right choice for me."

The David Braley Athletics & Recreation Centre, which opened about five years ago, offers state-of-the-art amenities to all of Mohawk's athletic programs, says Michelle Ball, Director of Student Engagement and Athletics. It includes a fitness centre, multi-purpose studio, indoor track, and three full-size gyms.

"When Mohawk has a similar academic program to another college, athletes will look at the facilities available. We know the centre has influenced decisions to attend here."

Mohawk's varsity sports roster includes 14 teams: basketball (men and women), volleyball (men and women), soccer (men and women), golf (co-ed), badminton (co-ed), cross-country (co-ed), curling (co-ed), indoor soccer (men and women), rugby (men), and softball (women).

About 180 varsity athletes suit up to represent the Mohawk Mountaineers in the Ontario College Athletic Association (OCAA). "I think we are really fortunate because we have an excellent varsity program at Mohawk," said Kevin Duffy, head coach of the women's basketball team. "I can tell you that whenever I invite parents or rep teams to see our team, they are impressed with the quality of athletics and facilities at Mohawk."

The women's basketball team has earned OCAA medals five straight years and Mohawk has recently fielded strong teams in volleyball, softball and men's basketball, and earned individual medals in golf and curling over the last several seasons.

Ball says one-quarter of Mohawk's athletes have averages above 85 per cent. "Our success isn't just on the court or the field but in the classroom. Our athletes are here for school first."



Mohawk's Energy and Power Innovation Centre's core team: Mariano Arriaga, General Manager, Rubaid Khan, Research Coordinator and Benson Lam, Technical Lead at the Caroline Substation Lab.

THIS IS GOING TO BE EPIC

IDEAWORKS' energy innovation centre to be the go-to place for new ideas

Mohawk College is powering up its capabilities in sustainable energy with the Energy & Power Innovation Centre (EPIC).

EPIC collaborates with industry partners on applied research projects related to sustainable energy integration, prototype testing, power protection and control.

The Energy & Power Management Lab at the Fennell Campus will soon move to its expanded home in the newly opened The Joyce Centre for Partnership & Innovation.

"It will allow for more equipment, more learning and collaboration space," said Mariano Arriaga, General Manager of EPIC.

From The Joyce Centre lab, students and faculty will be able to remotely monitor and partially control some of the equipment at the other labs, along with all the geothermal, solar and rainwater sensors in the building.

"It will be the go-to place for information regarding zero carbon buildings," said Arriaga, who came to Mohawk in June from the University of Waterloo where he was a post-doctoral fellow researching the integration of energy storage systems in the electrical grid.

Earlier this year, EPIC opened the Energy and Power Utilities Lab in the former Caroline Street substation. The fully equipped substation, leased from Alectra Utilities, will be used for simulations run by students, training, workshops and certificate programs for industry partners, as well as applied research.

EPIC's third facility at the Stoney Creek Campus for Skilled Trades includes an off-grid house powered by solar energy and batteries. There, students work with industry partners on a range of applied research projects.

"It's a sandbox place where industrial partners can test their operations or pilot innovation. It's the go-to place for new ideas," said Arriaga.

EPIC is one of three innovation centres at Mohawk through applied research hub IDEAWORKS. Arriaga says there is also an opportunity to collaborate with the other two, MEDIC and the Additive Manufacturing Innovation Centre.

Energy reliability, efficiency and storage are critical to everything from the smallest home to the biggest factory, says Arriaga. "There is so much potential for EPIC to work with utilities, manufacturers, small-to-medium businesses and universities. We are doing strategic planning right now to prioritize the sectors and specific projects to undertake."



Kim Gutt, Executive Director, Sustainable Hamilton Burlington with Sandi Stride, CCCM's Executive Director at the launch of Sustainable Hamilton Burlington's new Business Climate Action Toolkit.

THERE'S A CLIMATE FOR CHANGE AT MOHAWK'S CENTRE FOR CLIMATE CHANGE MANAGEMENT

Centre aims to be catalyst for action

The Centre for Climate Change Management (CCCM) fosters Mohawk College's expertise in education and applied research to drive action on climate change, says Executive Director Sandi Stride.

"There is so much great research that is happening. We are focused on applying those solutions, and being a catalyst for action."

The first pillar of the CCCM is facilitating and hosting the Bay Area Climate Change Office, a collaboration between the City of Hamilton, the City of Burlington and Mohawk.

"Both cities have already done a lot of work and we are building on that foundation," said Stride. "All the partners have made a very strong commitment to this."

After extensive consultation, CCCM created an engagement plan that was finalized in June. A Bay Area Climate Change Council has recently been formed and is tasked with developing a first-year work plan.

The second pillar is sharing knowledge with industry through Sustainable Hamilton Burlington. That includes offering an online Climate Change

Management for Business course and experiential learning opportunities.

The third pillar is converting Mohawk's leadership on campus carbon management into an online toolkit that will be made available to all colleges.

"We've done extensive engagement on that project to understand barriers and opportunities and where colleges need tools. We expect it to be available in early 2019."

Stride says the CCCM will also serve as a conduit between Mohawk and local startups in green technology that need help with proof-of-concept and prototyping.

The CCCM will move into the top floor of The Joyce Centre for Partnership & Innovation, Mohawk's new zero carbon building, later this year.

"It gives us a chance to bring everyone together in a forward-thinking collaborative space. That suits our vision for the CCCM perfectly, which is to be partners with industry and community partners. That is the spirit of The Joyce Centre and Mohawk's strategic direction." ■■■



Lisa Syms, Accessible Media Production graduate student, Jennifer Curry Jahnke, Professor/Coordinator Accessible Media Production graduate program and Adam Spencer, Professor Accessible Media Production program, Industry Professional – Head of Accessibility Services, Accessibil-IT

HOW ACCESSIBLE IS YOUR CONTENT?

New program fulfills a growing need in Ontario and beyond

Mohawk College is the only college in Ontario, possibly North America, to offer a graduate certificate program in Accessible Media, as the province and much of Canada and the world moves towards a barrier-free world for people with disabilities.

The program, which teaches Canadian and global accessibility standards, will begin for a second group of students in January.

"We need to start graduating people who understand accessible content," said instructor Karen McCall, who taught accessible document design. A growing number of employers are requiring that new hires be equipped to build accessible content, she said.

Much of the digital content on the web is not accessible for those with low or no vision or with hearing loss. By 2021, the Accessibility for Ontarians with Disabilities Act requires that everything on the web be accessible. That requires captioning for video and making content compatible with assistive devices, for instance.

"It was a rigorous program and I got a lot out of it," said graduate Andrea Jelic. "It's an up-and-coming career and these skills will be needed."

The eight-month program mixes once a week on-campus classes with online learning. Courses are delivered in three-week modules, culminating in a capstone project, and all students did one or two field placements.

"We had more employers asking for placements than we had students. There is a lot of demand out there," said Program Coordinator Jennifer Curry Jahnke.

Adam Luyk's e-learning support role in Mohawk's McKeil School of Business has expanded to include accessibility components now that he has finished the Accessible Media program. He now trains Mohawk staff and faculty to create accessible documents and audits courses for accessibility.

"I never thought about accessibility before taking this program. I didn't understand the issue and it was an eye-opening experience for me. It has changed my perspective." ■■■

Mohawk student Ravi Patel says Campus to Community makes him feel connected to his college and his adopted home.

Right: Landscaping and fall cleanup at Eva Rothwell Centre (top), Food Drive delivery at Eva Rothwell Centre's Emergency Food Pantry (bottom).

LEARNING TO MAKE A DIFFERENCE

Program demonstrates power of volunteering to students

Mohawk students have the desire and the ability to help out in the community and the college is focused on helping them do just that. The Campus to Community initiative has resulted in more than 400 student volunteers contributing to local non-profits and charities since the program began in September 2016.

The students benefit from strategic volunteering that has been vetted and facilitated by the college, says Program Liaison Claire Webber. It gives them valuable experience on their resumes and credit on their Co-Curricular Records (CCR), which highlights all aspects of a college experience that don't appear on a transcript. It also allows for networking and a foot in the door for their careers.

"The overall goal is to create meaningful connections between Mohawk students and the Hamilton community through direct volunteering outreach," said Webber. "Volunteering can be daunting for students but this makes it easier."

Ravi Patel, an international student from India studying mechanical engineering, says Campus to

Community makes him feel connected to his college and his adopted home. He volunteers at Ronald McDonald House where he hosts a weekly games night. "It's a really wonderful experience. I love spending time with kids. They have so much fun and it makes families happy."

He's also volunteered for a food drive and a landscaping improvement project at the Eva Rothwell Centre. Though he first volunteered to get credit on his CCR, Patel says he now does it because of the personal satisfaction it brings.

The program is part of Mohawk's strategic plan for student success and engagement and supported by Glen and Heather Steeves. It began as a pilot with three non-profit partners and has now grown to 12. The aim is to expand the roster of volunteer organizations each year to 24 by 2021. ■■■

Mohawk will seek its next group of community partners beginning in spring 2019. Visit mohawkcollege.ca/campustocommunity.



Ravi Patel



Brittany Hersey, Student Lead and Sam Campanella, Director, Eva Rothwell Centre

Campus to Community partners

- Ronald McDonald House Charities of South Central Ontario
- Eva Rothwell Centre
- Habitat for Humanity Hamilton
- Neighbour to Neighbour Centre
- Wesley Urban Ministries
- Stewards of Cootes Watershed
- Mission Services of Hamilton
- Special Olympics Hamilton
- Boys and Girls Clubs of Hamilton
- Native Women's Centre
- St. Peter's Residence at Chedoke
- North Hamilton Community Health Centre

BRINGING LOCAL HISTORY TO LIFE

A future app will use augmented reality to engage people in the history of Hamilton thanks to Mohawk software development students and faculty.

The project is the latest for Mohawk students through collaborative innovation hub CityLAB. The CityLAB model is to take recommendations for projects from city staff who then work with teams of students from Mohawk, McMaster University and Redeemer College University on solutions.

The app concept is an interactive scavenger hunt using layers of digital storytelling to bring history to life.

History is not only found in books or museums, it's throughout the city, says Nancy Prochuk, Exhibit Program Coordinator with Hamilton Civic Museums. Sewer covers dating back to the 1800s tell the story of the waterworks of the city. Roads link back to walking routes of Indigenous peoples as they tracked animals.

"We are really dreaming big," said Prochuk. "We want people to look at the city we love and relate to it on a deeper level. Hamilton history is fascinating."

Andrew Spearin, an HTML and CSS Instructor in Mohawk's Software Development program, says students will decide the platform to use, design the user experience and be part of matching the technology to the storytelling. They will also gain experience working with a client and users.

"I think the biggest value in this for students is working with very new technology in augmented reality. It's an opportunity to be on the cutting edge of mobile technology and really dive into the latest thing."

The app is a great example of a CityLAB endeavour, says Patrick Byrne, CityLAB Project Manager.

"It's experimenting with new ideas and there's excitement around that. There is an opportunity to showcase something that can be a prototype for other applications."

Under CityLAB, Mohawk students have also carried out a transportation assessment for future development at piers 7 and 8 and renovated CityHousing units. ■■■



MOHAWK HAPPENINGS HIGHLIGHTS

1 The Joyce Centre for Partnership & Innovation wins Sustainability Award from Alectra Utilities. **2** Canada’s Minister of Environment and Climate Change Catherine McKenna tours The Joyce Centre. **3** The Joyce Centre becomes Canada’s first institutional building to receive Zero Carbon Building – Design Certification. **4** Mohawk Professor Rochelle Ivri one of 10 Canadians appointed to become Citizenship Judge. **5** ACCEPT Camp welcomes adults living with Autism. **6** Mohawk completes another CityHousing reno project. **7** Spring Convocation sees more than 6,000 graduate. **8** Mohawk thanks ArcelorMittal Dofasco for investing in The Joyce Centre. **9** Mohawk thanks the Government of Canada for investing in The Joyce Centre. **10** The Community Garden opens at Fennell Campus. **11** Mohawk celebrates this year’s nine outstanding Alumni of Distinction. **12** Author and futurist Jesse Hirsh addresses June 26 Corridor Summit. **13** Merriam Music donates rare Shigeru Kawai piano to music program. **14** 2018 Mohawk Awards of Excellence winners (l-r) Kevin Browne, Maria Bracalenti and Wendy Lawson with President Ron McKerlie.



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9:30 am – 12:30 pm

Institute for Applied Health Sciences at McMaster

SATURDAY NOVEMBER 3

10 am – 1 pm

Fennell Campus

All Programs

THURSDAY NOVEMBER 8

5 pm – 8 pm

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