

U of T Engineering by the Numbers 2017–2018



145

years since the Faculty was established in 1873

7

degrees offered, including 2 undergraduate and 5 graduate degrees

25+

multidisciplinary research centres

18

buildings make up the Faculty's footprint, including the new Myhal Centre for Engineering Innovation & Entrepreneurship

U of T Engineering Community

5,298

undergraduate students (ch.1)

2,415

graduate students (ch.2)

260

faculty (ch.9)

322

administrative and technical staff (p.9)

50,000+

alumni worldwide (ch.7)

100+

countries our students and faculty call home (ch.1)

Research & Innovation

120

chairs and professorships (ch.3)

400+

industrial research partners worldwide (ch.3)

\$35.3M

in Tri-Agency funding (ch.3)

8

NSERC CREATE grants (ch.3)

140+

spinoff companies since 1980 (appendix F)

27

new projects awarded through Dean's Strategic Fund (ch.11)

Transdisciplinary and Experiential Education

9

undergraduate programs and 8 Engineering Science majors (ch.1)

19

undergraduate minors and certificates (ch.9)

3

cross-Faculty Collaborative Specializations for graduate students (ch.2)

10+

MEng emphases (ch.2)

12,880

applicants to undergraduate studies (ch.1)

1,065

undergraduates in first year (ch.1)

40.2%

women in first year of undergraduate studies (ch.1)

93.2%

mean entering average of incoming Ontario students (ch.1)

160+

partner universities offering study-abroad opportunities (ch.9)

100+

student-run engineering clubs and teams (appendix A)

300+

companies hired 779 undergraduate students through the Professional Experience Year Co-op Program (ch.4)

Message from the Dean

It is my privilege to present our 2018 Annual Report of Performance Indicators, highlighting our achievements and initiatives over the 2017–2018 academic year — the first of our *Academic Plan 2017–2022*.

Our Faculty reached a significant milestone this spring with the opening of the Myhal Centre for Engineering Innovation & Entrepreneurship, which maximizes prime space on campus for research collaboration and active, experiential learning both inside and outside the classroom. The support we received from the province, the University and our students, donors and alumni demonstrates their confidence in our Faculty to continue on its impressive trajectory as Canada's top-ranked engineering school, and among the best in the world. The Faculty's newest building launches the next era in engineering education and research, and embodies the collaborative spirit of our community, fostering greater interaction among students, staff, faculty, alumni and partners in industry and government. Its technology-enhanced active learning spaces, prototyping facilities and flexible design studios will spark impactful collaborations, initiatives and startups. The Myhal Centre also features dedicated space for clubs, teams and musicians that enrich our student experience — from the Skule™ Orchestra to the Human Powered Vehicles Design Team, which this year won the World Human Powered Speed Challenge in Battle Mountain, Nevada.

The Myhal Centre houses multidisciplinary research institutes and centres, such as the Centre for Global Engineering, the Troost Institute for Leadership Education in Engineering, and the Institutes for Sustainable Energy, Robotics & Mechatronics and Water Innovation. Through these and others, we leverage our strengths in strategic areas, including sustainability, human health and data analytics, to improve the quality of life for people around the world and to create technologies and products that drive economic and social prosperity. This year, we also launched the Institute for Studies in Transdisciplinary Engineering Education and Practice (ISTEP), which brings together people and programs from across — and beyond — our Faculty to support the development of engineering pedagogies among faculty, and to foster professionalism, effective communication, leadership, global fluency and lifelong learning among our students.

In 2017–2018 we further expanded opportunities for our students to customize their degree paths and collaborate across disciplines. We welcomed the first students into our undergraduate minor in Advanced Manufacturing



and certificate in Forensic Engineering, and launched an MEng emphasis in Analytics. This fall, we will launch our Engineering Science major in Machine Intelligence — the first of its kind in Canada — as well as our undergraduate minor in Music Performance and certificate in Music Technology, created in collaboration with the Faculty of Music.

U of T Engineering strives to create an inclusive community that embraces and celebrates all perspectives, and we continue to strengthen diversity among our students, staff and faculty. For the second year in a row, more than 40% of our incoming undergraduates were women, and we are on track to maintain a similar percentage in September 2018. We are advancing Engineers Canada toward its objective of 30% female representation among newly licensed engineers by 2030. We are also leading in the calls to action made by U of T's Truth and Reconciliation Steering Committee. Through our Eagles' Longhouse and the appointments of Dean's advisors on Indigenous and Black inclusivity initiatives, we aim to ensure that our Faculty and our profession reflect the rich diversity of the society we serve.

I take tremendous pride in all that we have accomplished together this past year. We know there is still more to be done, and our Academic Plan 2017–2022 lays out an ambitious vision for deepening our culture of excellence, inclusion, innovation and creativity over the next five years.

Cristina Amon, Dean

Faculty Leadership, 2017–2018

Dean

Cristina Amon

Vice-Dean, Graduate Studies

Julie Audet

Vice-Dean, Undergraduate

Thomas Coyle

Vice-Dean, Research

Ramin Farnood

Associate Dean, Cross-Disciplinary Programs

Bryan Karney

Vice-Dean, First Year

Micah Stickel

**Director, University of Toronto
Institute for Aerospace Studies**

Christopher Damaren

**Director, Institute of Biomaterials
& Biomedical Engineering**

Warren Chan

**Chair, Department of Chemical Engineering
& Applied Chemistry**

Grant Allen

Chair, Department of Civil & Mineral Engineering

Brent Sleep

**Chair, The Edward S. Rogers Sr. Department of
Electrical & Computer Engineering**

Farid Najm

Chair, Division of Engineering Science

Deepa Kundur

**Chair, Department of Materials
Science & Engineering**

Jun Nogami

**Chair, Department of Mechanical
& Industrial Engineering**

Markus Bussmann

Assistant Dean, Administration

Lisa Camilleri

Chief Financial Officer

Brian Coates

Executive Director, Communications

Catherine Riddell

Faculty Registrar

Don MacMillan

Note: To view the full organizational chart, please visit: www.uoft.me/FASEleadership.

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Summary of Academic Plan Goals, 2017–2022

The Academic Plan defines our Faculty's priorities and objectives for a five-year period. Over the course of our last plan from 2011 to 2016, we made tremendous progress toward achieving, and in many cases surpassing, our ambitious goals.

On December 12, 2017, the Faculty approved the Academic Plan 2017–2022 (www.uoft.me/FASEAcademicPlanning), which outlines our strategic goals in key areas as described in this section.

In December 2018, we will issue our first report on progress and achievements under this plan.

Transformative Teaching and Learning

Admission to our programs is highly competitive and we attract some of the brightest students from across Canada and around the world. Through both curricular and co-curricular activities, we enable these students to develop a strong technical foundation as well as key engineering competencies such as leadership, communication, entrepreneurship, multidisciplinary collaboration and global fluency.

Over the next five years, we will:

- Establish U of T Engineering as a global leader in pedagogical development and teaching innovation in engineering education.
- Continue to develop rich opportunities for experiential learning and professional development for undergraduate and graduate students, including interdisciplinary fluency and working effectively and collaboratively across cultures.
- Further integrate active learning pedagogies into curriculum delivery to encourage lifelong learning and knowledge creation.
- Prepare students with the technical and transdisciplinary competencies necessary for them to identify, learn and apply these along with engineering practices to resolve global challenges, create new technologies and contribute to the prosperity of society.
- Leverage the Myhal Centre for Engineering Innovation & Entrepreneurship's state-of-the-art facilities, as well as instructional technology tools, to further enrich our student experience through active learning, engineering design, prototyping and collaborative, multidisciplinary projects.
- Attract diverse, outstanding students from a wide range of backgrounds; and leverage all types of diversity to promote inclusivity and create opportunities to experience working collaboratively across cultures.
- Ensure U of T Engineering remains a leader in the promotion and support of research training for graduate and undergraduate students.

Student Experience

We are dedicated to providing an unparalleled experience that speaks to the diversity and international outlook of our students, while enhancing our culture and pursuit of excellence. Through comprehensive support systems for academic advising, mental wellness and healthy lifestyles, we ensure that our students are prepared to thrive — academically, personally and professionally.

Over the next five years, we will:

- Create a Centre for Engineering Student Success — a “one stop” point of access for information, resources and assistance.
- Encourage all undergraduate students to participate in a significant co-curricular experience and enhance programs to further undergraduate professional development; increase the number and diversity of PEY Co-op positions, summer research internships and international experiences.
- Improve the quality, accessibility and delivery of academic advising services.
- Leverage and create resources, and develop policies and procedures to support mental wellness, assist students in need and promote healthy lifestyles.
- Build on the pilot professional development program for PhD students, expand to all graduate students and promote industrial interactions.
- Encourage participation and support co- and extra-curricular student activities, such as the competitive student design teams and other student clubs and groups.
- Ensure that infrastructure (space and IT) supports are in place to facilitate collaboration and innovation within student teams and clubs.
- Support deeper engagement and community among graduate and undergraduate students, in addition to enhanced faculty-student interaction across undergraduate and graduate programs.
- Equip students, staff and faculty with the competencies necessary to navigate cross-cultural communications and interactions, thereby creating an enriching, inclusive environment where everyone will excel and flourish.

Innovative Research and Entrepreneurship

Our vibrant research community is defined by creativity, multidisciplinary collaboration, innovation and entrepreneurship. The world-class research we produce addresses critical challenges and creates new technologies in a wide variety of fields, from human health to sustainability to smart cities. Maintaining our track record of excellence in research, we continue to attract the most talented students and professors from around the world.

Our goals for research and entrepreneurship fall into four subcategories:

Research Excellence

- Increase our support for transformative cross-disciplinary collaborative research that inspires innovation.
- Continue fostering multidisciplinary collaborative research and education so it becomes an integral part of our culture.
- Lead impactful multi-institutional research collaborations in strategic areas that will address local and global needs, in addition to creating new technologies that will act as an engine of prosperity and economic development.
- Create a vibrant research ecosystem, which is nurturing, collaborative and inclusive, with centres/institutes focusing on impactful priority areas.
- Expand our mentorship programs for early-career researchers.
- Increase our reputation and visibility, and be recognized for excellence and the impact of our contributions.

International Outreach

- Enhance our impact through international institutional

and industry research co-operation that addresses global challenges.

- Increase our leadership and participation in internationally significant and impactful projects.
- Develop/expand faculty and research student international mobility programs (e.g. Named Opportunities for Visiting Professors) and highly qualified personnel (HQP) international exchange capacity to educate and prepare the next generation of global leaders.

Industry and Entrepreneurship

- Strengthen our research impact via the translation of basic discovery to application through increased industry partnerships and support for entrepreneurship initiatives.

Infrastructure and Space

- Create a forward-looking plan for our research space and infrastructure renewal, both in quality and quantity.
- Devise and implement a sustainable model for research support and for the operation of major research infrastructure.

Influence, Collaboration and Partnerships

Partnering with organizations, industrial collaborators and peer institutions locally and worldwide enables us to create outstanding opportunities for knowledge exchange between the Faculty and industry through student internships and multidisciplinary initiatives. How effectively we connect with these stakeholders has an important impact on our ability to attract the brightest students and faculty members, address complex engineering challenges and create new technologies for global prosperity.

Over the next five years, we will:

- Inspire and influence education and learning in science, technology, engineering and math (STEM) for K-12, while enhancing the student experience for undergraduate and graduate students.
- Create connections within our community to enrich the City and the University.
- Strengthen the relationship with alumni and increase interactions between alumni and current students.
- Foster a stronger sense of community with alumni and donors who volunteer and provide philanthropic support to the Faculty.
- Continue nurturing cross-disciplinary collaborations with other University of Toronto faculties.
- Develop strategic partnerships with key institutions and industry (local, national and international).
- Increase the Faculty's impact through advocacy to — and support from — government agencies and industry; contribute to shaping the Canadian and global research agenda by influencing federal and provincial R&D priorities.
- Raise the profile of the Faculty by actively participating in and providing leadership to professional societies, editorial boards and external research committees.
- Provide outstanding leadership and influence for excellence in education.
- Monitor and measure the impact of the Faculty's outreach, collaboration and partnerships.

Organization and Strategic Resources

We effectively and strategically use our resources — financial, physical and human — to advance our innovation in research, support faculty and staff, and create an extraordinary learning environment for our students. Strategic investment, such as the creation of the Myhal Centre for Engineering Innovation & Entrepreneurship, has put us in an excellent position, and our goals for the future build on this achievement, leveraging its extraordinary spaces to enhance our impact in research and education.

Over the next five years, we will:

- Expand opportunities for staff development to address the evolving needs of our Faculty, to provide appropriate tools to increase effectiveness and to create innovative approaches for staff advancement.
- Emphasize diversity and cross-disciplinary strategic research themes when recruiting faculty and become a magnet for world-class talent.
- Continue to enhance teaching and design facilities, improve laboratory and research space and provide co-curricular space for undergraduate and graduate students.
- Strengthen our network of faculty, staff, students and alumni for the betterment of the Faculty and our broader community.
- Continue to increase the quality of our communications and key messaging, and increase the Faculty's visibility to target audiences.
- Create a base level of IT services across the Faculty and enhance professional development for staff and faculty in the use of new technologies.
- Ensure operating budgets, capital plans and fundraising continue to align with our academic mission and priorities, and invest strategically for the future.

Comparison of U of T Engineering with Ontario and Canada, 2017–2018

The table below compares U of T Engineering metrics against those of engineering Faculties in Ontario and across Canada for 2017–2018. Within Canada, we awarded 7.3% of all undergraduate engineering degrees, 10.0% of all engineering master’s degrees and 10.7% of all engineering doctoral degrees this past year.

Our internationally renowned scholars have received the single largest proportion of major awards (21.3%) and Natural Sciences and Engineering Research Council (NSERC) engineering funding (10.0%) in 2017–2018, despite comprising only 6.2% of Canada’s tenured and tenure-stream engineering professors.

	U of T Engineering	Ontario	U of T % of Ontario	Canada	U of T % of Canada
Undergraduate					
Enrolment (FTE)	4,553	36,521	12.5%	81,172	5.6%
% Women	32.0%	22.7%		23.9%	
Degrees Awarded	1,116	7,127	15.7%	15,283	7.3%
% Women	25.1%	21.4%		20.6%	
Master's (MEng, MAsC and MHSc)					
Enrolment (FTE)	1,246	7,319	17.0%	16,926	7.4%
Degrees Awarded	676	3,494	19.3%	6,781	10.0%
% Women	25.6%	25.0%		25.4%	
Doctoral (PhD)					
Enrolment (FTE)	840	3,718	22.6%	10,576	7.9%
Degrees Awarded	178	796	22.4%	1,660	10.7%
% Women	26.4%	23.0%		23.4%	
Faculty					
Tenured and Tenure-Stream	234	1,593	14.7%	3,760	6.2%
% Women	20.1%	15.5%		14.8%	
Major Awards					
Major Awards Received	16	33	48.5%	75	21.3%
Research Funding					
NSERC Funding for Engineering	\$32.3M	\$136.4M	23.7%	\$321.4M	10.0%

Note: Unlike data contained in the rest of this report, enrolment (Full-time Equivalent, or FTE) and degrees awarded are based on the 2017 calendar year. Faculty data is current as of November 2017. NSERC research funding is based on the 2017–2018 grant year (April to March).

Comparison of U of T Engineering with St. George Campus and University of Toronto, 2017–2018

The following chart compares U of T Engineering with the University of Toronto based on key metrics for 2017–2018. Since our activities are concentrated on the St. George campus, we also present our relative metrics where available.

	U of T Engineering	St. George Campus	Engineering % of Campus	University of Toronto	Engineering % of U of T
Student Enrolment					
Undergraduate	5,298	38,555	13.7%	65,991	8.0%
Professional Master's (MEng and MHSc)	899	8,057	11.2%	8,601	10.5%
Research Master's (MAsc)	670	3,150	21.3%	3,287	20.4%
Doctoral (PhD)	846	5,933	14.3%	6,279	13.5%
All Students	7,713	55,695	13.8%	84,158	9.2%
Degrees Awarded					
Undergraduate	1,052	7,997	13.2%	12,642	8.3%
Professional Master's (MEng and MHSc)	490	3,718	13.2%	4,038	12.1%
Research Master's (MAsc)	226	1,288	17.5%	1,350	16.7%
Doctoral (PhD)	165	918	18.0%	966	17.1%
Total Degrees	1,933	13,921	13.9%	18,996	10.2%
Faculty and Staff					
Professoriate	260			3,075	8.5%
Administrative and Technical Staff	322			7,224	4.5%
Research Funding					
Sponsored Research Funding	\$80.6M			\$487.8M	16.5%
Industry Research Funding	\$8.6M			\$20.6M	41.4%
Space					
Space (NASMs)	70,933	648,072	10.9%	847,988	8.4%
Revenue					
University-wide Costs	\$70.4M			\$551.5M	12.8%
Total Operating Revenue	\$222.0M			\$2,095.6M	10.6%

Note: Student enrolment is shown as of November 1. Degrees awarded are based on the 2017–2018 academic year. Professoriate includes tenured, tenure-stream and teaching-stream faculty members. Administrative and technical staff includes full- and part-time staff. Research funding is based on the 2016–2017 grant year (April to March). Space is measured in Net Assignable Square Metres (NASMs) and includes the footprint of the Myhal Centre for Engineering Innovation & Entrepreneurship, which officially opened in April 2018. Revenue is based on the 2017–2018 U of T fiscal year (May to April).

Myhal Centre for Engineering Innovation & Entrepreneurship

On April 27, 2018, the U of T Engineering community celebrated the official opening of the Myhal Centre for Engineering Innovation & Entrepreneurship and the remarkable leadership of Dean Cristina Amon. This moment also marked the success of our ambitious philanthropic campaign and launched a new era for engineering education and innovation — one with multidisciplinary collaboration and active, experiential learning at its core. →



Myhal Centre: A bold commitment to engineering innovation

Named in honour of George Myhal (IndE 7T8), his wife Rayla and their family, the building embodies key engineering qualities such as collaboration across disciplines, experiential learning, leadership and entrepreneurship. It includes flexible, technology enhanced active learning spaces, fabrication facilities to support both curricular and co-curricular design projects, and dedicated space for student clubs and teams.

The Myhal Centre was designed by University of Toronto alumnus Robert Davies of Montgomery Sisam Architects in Toronto, in association with Peter Clegg of Feilden Clegg Bradley Studios in England. It features interactive classroom technologies, open-concept spaces for leading-edge laboratories and collaborative spaces for students, faculty, alumni and staff. It is home to leading multidisciplinary research centres and institutes as well as design, fabrication and prototyping facilities. The building offers one of the finest teaching and research environments of any engineering school in the world, fostering entrepreneurship and collaboration among exceptional students and faculty at Canada's #1-ranked engineering school and one of the world's best.

“The Myhal Centre is where tomorrow’s engineering solutions, technologies and industries will be born. Its state-of-the-art facilities will spark new multidisciplinary collaborations, foster rich learning experiences and create further opportunities to enhance how we develop the next generation of global engineering leaders.”

– Cristina Amon, Dean, Faculty of Applied Science & Engineering

Spotlight on the Myhal Family

When Dean Cristina Amon (centre) envisioned this state-of-the-art space in the heart of U of T's St. George campus, George Myhal (right) and his wife, Rayla (left), were immediately taken with the idea, and quickly became two of the project's most ardent champions. To rally support from the broader U of T Engineering community and government, George Myhal took the lead as the chair of the Dean's Campaign Executive Committee.

George credits his professional successes, in part, to the educational opportunities afforded to him after his family emigrated from western Ukraine. When he and Rayla thought about the best way they could give back, it seemed natural to choose U of T Engineering.



The Myhal Centre exceeds many of the Tier 2 Toronto Green Standard performance measures for sustainable site and building design

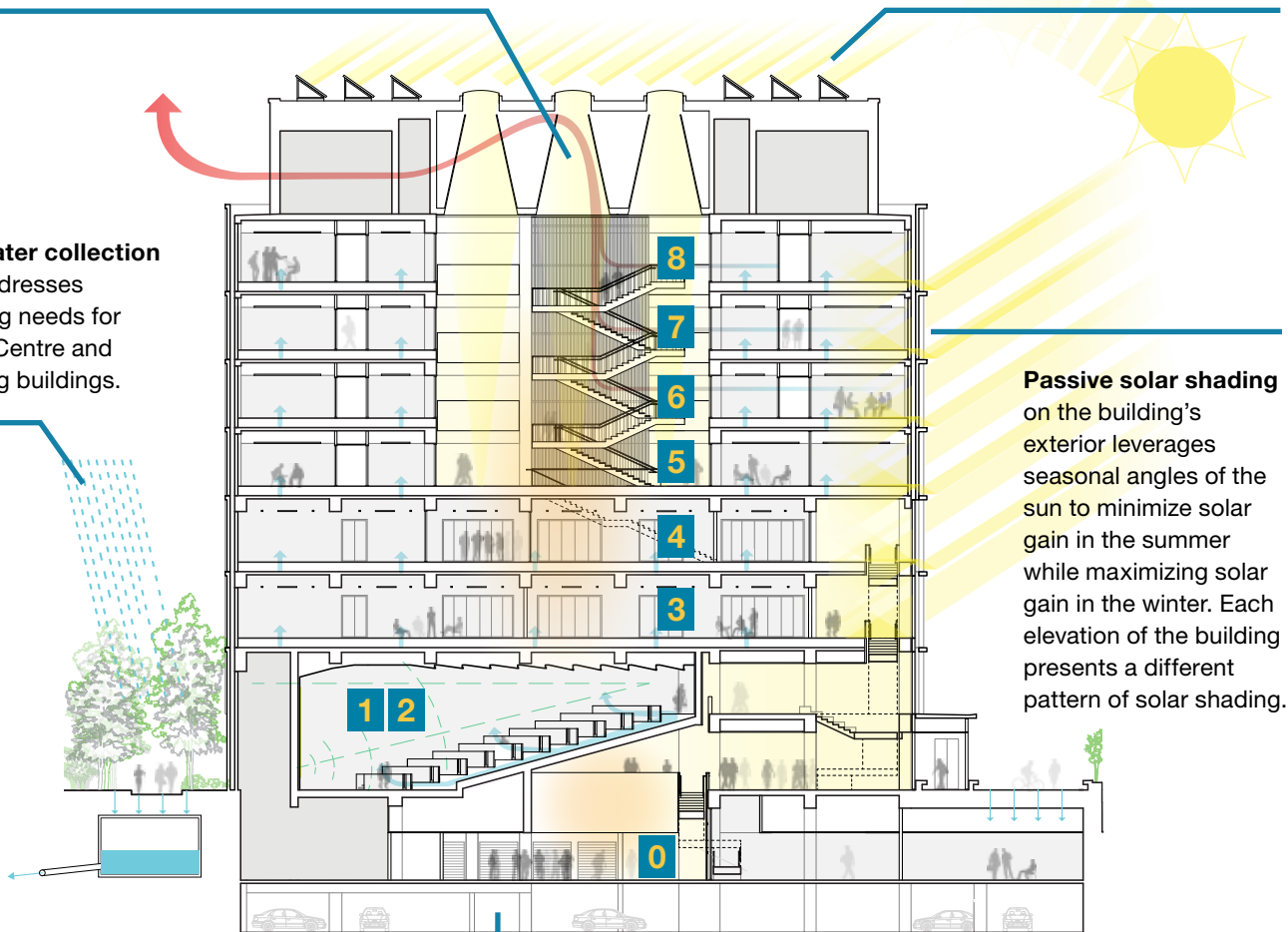
The **advanced air-delivery system** distributes conditioned air from under-floor ducts, conserving cool air when needed and dispelling warm air in the summer.

Rooftop photovoltaic cells harness the sun's energy, generating 70 kWh of electricity annually. Skylights draw natural light deep into the building, reducing dependence on artificial lighting.

The **rainwater collection system** addresses landscaping needs for the Myhal Centre and surrounding buildings.

Passive solar shading on the building's exterior leverages seasonal angles of the sun to minimize solar gain in the summer while maximizing solar gain in the winter. Each elevation of the building presents a different pattern of solar shading.

The **underground parking level** accommodates cars and bicycles.



“U of T Engineering offers an outstanding education. The new building will enable world-class research and education, providing a rich environment for collaboration and excellence. This is critical for 21st-century engineers who are driving innovation in industry, government, academia and beyond. This space will inspire a very bright future for us all.”

– George Myhal (IndE 7T8)

Features of the Myhal Centre by **Level**

0 Versatile student club space

- The **Engineering Society Arena** houses flexible facilities that serve the engineering student clubs, including open work areas, fabrication studios, project storage and meeting rooms.
- The music room provides Skule™ musicians a sound-buffered space to practice. It also supports the undergraduate music performance minor and music technology certificate.
- The **Stewart Blusson Visualization Laboratory** for large data analytics makes use of immersive screen technology.
- A 64-seat computer teaching lab facilitates software instruction.

1 2 World-class event space and auditorium

- The 468-seat **Lee & Margaret Lau Auditorium** is a marquee facility that optimizes audience engagement through group seating, multiple-screen projection and theatre-quality lighting. It contains a number of features to encourage active learning and nimble transitions between lecturing and student interaction, including a data communication system that enables students to share content with the instructor and one another. Several of the auditorium benches and tables are named in honour of alumni, faculty, staff and donors.

3 Technology Enhanced Active Learning Rooms

- Five technology enhanced active learning (TEAL) rooms reside here, each designed to accommodate several scenarios through flexible seating and multiple flat-panel screens:
 - **Singapore Malaysia Alumni TEAL Room**
 - **Taiwan Alumni TEAL Room**
 - **Hong Kong Alumni TEAL Room**
 - **Estate of John Edgar McAllister TEAL Room**
 - **Brookfield TEAL Room**
- Two studios facilitate design innovation: **Fung Family Design Studio** and the **Ron Venter Design Studio**.

4 Design, fabrication and prototype facilities

- This floor features a number of design studios, including the **Dorothy Szymaszek Design Studio**, **John H. Weber 7T9 Design Studio**, **William C. Bowman Design Studio** and others.
- The design studios surround a supervised fabrication facility, which includes a rapid prototyping space. The design of this floor enables students to move seamlessly between fabrication facilities and their respective working groups.

5 Multidisciplinary design and robotics

- This level is home to the **U of T Institute for Multidisciplinary Design & Innovation** and **Institute for Robotics & Mechatronics**.
- Supported by an anonymous donor, the **revealed atrium** begins on Level 5. This dramatic, four-level atrium provides exceptional study and event space.
- The atrium is bounded by the **Heuckroth Learning Commons**, the **Bill Buckley Quiet Study Space** and the **Norris Walker 5T7 Robotics Laboratory**, a two-storey space for drone testing and research.
- Level 5 houses the **Sidney Cooper Project Room**, **James Peers Project Room** and the **Juhan Kalmet Meeting Room**.

6 Industry collaboration and The Entrepreneurship Hatchery

- **The Entrepreneurship Hatchery** (supported by Gerald and Geraldine Heffernan) provides space, equipment and mentorship to student entrepreneurs.
- The **Ajax Alumni Attractor** is an on-campus home for alumni collaborations.
- The **Professional Master's Student Lounge** (supported by Richard Venn) provides a space for MEng students to congregate.
- The Faculty's **Office of Advancement and Alumni Relations** resides on this floor, with space supported by the U of T Engineering Class of 5T3.

- This level contains a number of project rooms:
 - **Adediran Otegbade Project Room**
 - **Dave Liu & Lauren Wu Project Room**
 - **Hatch Project Room**
 - **Wildcat Project Room**
 - **Calgary Alumni Meeting Room**
 - three **Richard Venn Meeting Rooms**

7 Global engineering and leadership education

- Features dedicated space for the **Centre for Global Engineering** (supported by Paul Cadario), the **Troost Institute for Leadership Education in Engineering** (supported by Bill and Kathleen Troost) and the Institute for Studies in Transdisciplinary Engineering Education & Practice. Level 7 is designed to catalyze the next generation of global engineering leaders.
- Several spaces on this floor facilitate collaboration and innovation:
 - **Claire M.C. Kennedy Meeting Room**
 - **C. William Daniel Second Mile Meeting Room**
 - **Frank Milligan Meeting Room**
 - **Murray Metcalfe Project Room**
 - **John E. Akitt Project Room**

8 Dr. Woo Hon Fai Innovation Floor

- The **Dr. Woo Hon Fai Innovation Floor** is named for alumnus Henry Wu's late father who was an influential leader in Hong Kong's business landscape.
- This floor is home to the **Institute for Sustainable Energy**, the **Institute for Water Innovation**, four project rooms, two meeting rooms, the interactive **Dr. Woo Hon Fai Informal Study Space** and the adjacent terrace, which offers a spectacular view of U of T's iconic front campus.
- Level 8 houses project rooms and research areas that facilitate collaboration with industry and academic partners.



Groundbreaking Ceremony, June 2015



Topping Off, May 2017

↑ The platform party including, from left: Ernesto Diaz Lozano Patiño, Engineering Society President (2015-16); Professor Emeritus Ron Venter; Judy Goldring, Chair of the Governing Council; Meric Gertler, U of T President; Michael Wilson, U of T Chancellor; Dean Cristina Amon; George Myhal (IndE 7T8); and Mauricio Curbelo, Engineering Society President (2013-14).

↗ Dean Cristina Amon, centre, and representatives from Montgomery Sisam Architects, Bird Construction and a small group of faculty and staff held a “topping-off” ceremony in May 2017 for the Myhal Centre, following the completion of the building’s uppermost level.

→ Left to right: Professor Jason Bazylak, Dean Cristina Amon and Elder Kim Running Bear McDougall participated in a smudging ceremony for the Myhal Centre in October 2017.



Smudging Ceremony, October 2017



Visit from Governor General and Premier, February 2018

↑ The Myhal Centre received strong support from the provincial government. In February 2018, Premier Kathleen Wynne visited the Myhal Centre and met with students on the Blue Sky Solar Racing team. Later that month, Wynne invited alumna and Governor General Julie Payette (ECE MASc 9T0) to meet with the students and Dean Cristina Amon as part of Payette’s first official visit to Ontario (pictured).



Official Opening, April 2018

↑ Claire Kennedy (ChemE 8T9), Chair of Governing Council, centre, declares the Myhal Centre officially open. She was joined by (from left) U of T Chancellor Michael Wilson, George and Rayla Myhal, Dean Cristina Amon, President Meric Gertler, Engineering Society President Jonathan Swyers (2017-18), as well as more than 200 members of the U of T Engineering community to celebrate the building’s opening on April 27, 2018.

TIME CAPSULE

During the official opening of the Myhal Centre, Faculty and University leaders sealed a time capsule into a wall on Level 1. The capsule is to be opened in 2073 to celebrate the 200th anniversary of engineering education at the University of Toronto. Below are some of the items in the time capsule, each of which represents the traditions and excellence of the U of T Engineering community today.



← Postcard from the Governor General

An inspirational message to future engineering students from Governor General Julie Payette. Payette is an astronaut, musician, athlete — and a U of T Engineering alumna.



↗ Leather Jacket

This iconic garment is worn by many engineering students. Jackets are personalized with the wearer's year, program and patches representing their co-curricular involvement.



← Métis Fire Bag

The fire bag represents the ingenuity and resilience of the Métis people. This bag contains a message from the Eagles' Longhouse, our Indigenous Initiatives Steering Committee. Formed in 2018, the Eagles' Longhouse strives to enhance U of T Engineering's relationship with Indigenous peoples.

→ Tissue Scaffold

This state-of-the-art tissue scaffold engineered in the lab of Professor Milica Radisic (IBBME, ChemE) allows cells to adhere to microscopic biowires at the bottom of each well. These biowires, seeded with specific cell types such as heart or liver, could be implanted in damaged organs or tissues to allow regeneration and repair.



← Iron Ring

Worn by many Canadian-trained engineers, the Iron Ring symbolizes the obligations and ethics associated with the engineering profession. A tradition originating in 1922, the ring is presented to graduating students in a closed ceremony known as *The Ritual of the Calling of an Engineer*.



↘ Microscissors

Developed in the Microrobotics Lab led by Professor Eric Diller (MIE), these prototype microscissors are 2 cm long and made of stainless steel blades connected by a superelastic nitinol wire. They can be controlled by a single magnetic field to manipulate microscale objects.



← Telehex

Invented by entrepreneur Peter Wen (MechE 1T8) during his first year as an undergraduate student, the TeleHex is a unique ultra-light, ultra-compact tool that uses telescoping parts to automatically fit the appropriate key into the sockets that adjust several bicycle parts. Wen designed and launched his product through The Entrepreneurship Hatchery.



← City of Toronto Drinking Water

A vial of Toronto tap water collected from the Drinking Water Research Group's lab.

