

Council of the Faculty of Applied Science & Engineering Minutes of the Meeting of April 15, 2024

MEMBERS PRESENT: Ning Yan (Council Speaker), Chris Yip (Dean), Dionne Aleman, Cristina Amon, Brohath Amrithraj, Philipp Asare, Julie Audet, Gisele Azimi, Jason Bazylak, Chris Beck, Timothy Bender, Evan Bentz, Shlomo Bibas, Helen Bright, Markus Bussmann, Ariel Chan, Arthur Chan, Heba Chehade, Ron Chiong, Alan Chong, Tom Coyle, Christopher Damaren, Michelle Deeton, Stark Draper, Matthew Du, Natalie Enright Jerger, Ade Fakolade, Jennifer Farmer, Ege Feyzioglu, Diane Giang, Sebastian Goodfellow, Allen Grant, Marianne Hatzopoulou, Angela Henshilwood, Ken Hilton, Jane Howe, Albert Huang, Hamed Ibrahim, Rob Irish, Greg Jamieson, Charles Jia, Parker Johnston, Omar Khan, Donald Kirk, Katy Kwong, Antonio Liscidini, Allison MacKay, Heather MacLean, Sam Mantenuto, Kasra Modares, Erika Narimatsu, Don Newton, Karl Peterson, Milos Popovic, Daniel Posen, Adham Ragab, Markus Rittinger, Jonathan Rocheleau, Lisa Romkey, Cindy Rottmann, Michael Sefton, Philipp Seiler, Theodore Soong, David Steinman, Marisa Sterling, Ajay Talbot, Hamid Timorabadi, John Walker, Jim Xu

GUESTS: Katie Allison, Irina Belaya, Sharon Brown, Mojgan Cossaro, Leanne Dawkins, Sonia De Buglio, Carolyn Farrell, Pierina Filippone, Shilpa Gantotti, Devin Gobson, Leslie Grife, Sania Hameed, Christina Heidorn, Katherine Jia, Inho Kim, Maggie Laidlaw, Sherry Lin, Jess MacInnis, Teresa Miniaci, Natalie Ossatchkina, Asma Pathan, Rocky Petinakis, Dan Pettigrew, Zeeshan Rayees, Tom Saint-Ivany, Alex Tichine, Alistair Vaz, Geoff Wichert, Nefeteria Wickham

SECRETARIAT: Silvia Delgado, Rodney Gensell, Alex Schroen, Caroline Ziegler (Secretary)

1. Speaker's Welcome

Interim Council Speaker Ning Yan called the fourth and final Faculty Council meeting of 2023-2024 to order at 12:10 pm, welcoming Council members present in the Michael E. Charles Council Chamber and online. She introduced the Dean and secretariat, acknowledged the land on which the University of Toronto operates, and reviewed protocols for the hybrid meeting.

2. Approval of Agenda

The agenda and reports were distributed on April 4. The slides for the FASE Facility Master Plan discussion and the memorial tribute for Professor Emerita Jane Phillips were distributed on April 12. There was no discussion and on a regular motion duly moved, seconded and carried, the agenda was approved.

3. Adoption of the Minutes of Previous Meetings

No errors or omissions were noted in the minutes of the February 27, 2024 Council meeting and on a regular motion duly moved, seconded and carried, the minutes were approved.

4. Memorial Tribute: Professor Emerita Jane Phillips

Ramin Farnood, chair of the Department of Chemical Engineering & Applied Chemistry, read the following memorial tribute in honour of Professor Emerita Jane Philips.

Be it resolved -

THAT the Council of the Faculty of Applied Science & Engineering record with deep regret the death on March 28, 2024 of Professor Emerita Jane Phillips.

Jane Phillips' U of T Engineering story began as an undergraduate student in the Department of Chemical Engineering & Applied Chemistry. After receiving her Bachelor of Applied Science in 1953, she went on to complete a master's degree in physical chemistry at Bryn Mawr College. Not long after completing her PhD at Johns Hopkins University and working as a postdoctoral fellow at NRC and Queen's University Belfast, Jane returned to U of T Engineering in 1964 as a faculty member in her home department.

Being a woman in engineering during that time was a rarity, and Jane paved a critical path for many who came after her. Her impact is nothing short of inspirational in advancing the role of women engineers, with many firsts to celebrate throughout her journey.

She was the first and only woman professor in our department at the time. By the mid-1980s, she co-founded the Canadian Catalysis Foundation and joined the PEO Council as a Lieutenant Governor's appointee and worked as a member of the complaints and discipline committees. She went on to be elected as the first woman academic PEO president in 1992. Notably, she was a Fellow of both the Chemical Institute of Canada and American Association for the Advancement of Science.

Within U of T, Jane served twice as the Associate Chair within the Department of Chemical Engineering & Applied Chemistry, and was the Associate Dean of the School of Graduate Studies. She was appointed Professor Emerita in 1997 and remained active in teaching and administration, regularly participating in the academic procession. She led the development of ethics within engineering and was involved in early equity, diversity and inclusion efforts as well as Women in Engineering Committees.

She was a selfless supporter and volunteer both within our U of T Engineering community and within the broader engineering profession. In commemoration of her achievements, she received the 2023 Engineering Alumni Medal, the highest honour awarded by U of T's Engineering Alumni Association. Her memory is also preserved in the Faculty's Hall of Distinction in the Sandford Fleming Building.

Her colleagues remember her as a positive person with incredible heart, showing concern and care for all students. The Department of Chemical Engineering & Applied Chemistry will remember Jane as a bright fixture in the Wallberg Building. She will be deeply missed.

Be it further resolved -

THAT this tribute to Professor Phillips be inscribed in the minutes of this Council meeting, and that copies be sent to her family as an expression of the respect and gratitude of the members of this Council.

The Speaker assumed concurrence with these resolutions and Council observed one minute of silence in honour of Professor Emerita Phillips.

5. Report of the Dean

Dean Chris Yip welcomed all to the Faculty Council meeting and updated Council on various issues.

(a) FASE Provostial Review and Self-Study

The FASE provostial review took place in December 2023. The review report is available on the Faculty's website. The vice-dean, strategic's office is compiling information to draft the Dean's administrative response and members are invited to submit feedback via their chair or director. The Dean thanked the vice-dean and her team for leading this initiative.

(b) Convocation

The Office of Convocation will welcome our graduating students in person at the spring convocation. Engineering will have three ceremonies on June 18: the morning ceremony will include graduates from electrical and computer engineering and from materials science and engineering; the afternoon ceremony will include graduates from mechanical and industrial engineering, aerospace engineering, biomedical engineering, and the BME Clinical Engineering Master of Health Science; and the evening ceremony will include graduates from chemical engineering, civil and mineral engineering, engineering science, and the Master of Engineering in Cities Engineering and Management.

(c) Engineering Society Leadership Transition

The 2024-2025 Engineering Society leadership team is comprised of Inho Kim, president; Kat Jia, vice-president, academic; Zayneb Hussain, vice-president, finance; Jennifer Wu, vice-president, communications; and Sean Huang, vice-president, student life. The Dean welcomed the incoming team and thanked them for committing their time and skills to the benefit of our engineering students.

The Dean acknowledged the 2023-2024 Engineering Society leadership team of Archit Bhargava and Parker Johnston, consecutive presidents; Ken Hilton, vice-president, academic; Bo Zhao, vice-president, finance; Renee Slen, vice-president, communications; and Joy Lai, vice-president, student life. He thanked the team for their tremendous contributions this past year, including the SKULE™ 150th anniversary celebration.

(d) QS World University Rankings 2024

Although we may face admissions challenges next year, the Dean was encouraged by the interest he saw in China from potential students in attending U of T Engineering. This is bolstered by our strong reputation as evidenced by our placement in the recently released QS World University Rankings 2024. We remain Canada's top-ranking engineering school and are now in the global top 20. The university placed 17th globally in the broad subject category of Engineering & Technology, an increase from last year's position of 27th and the second consecutive year where the Faculty has improved its ranking. Globally, the university made gains in 21 subjects this year, including an 11-spot rise to 10th place in mineral and mining engineering.

The Dean thanked all for their hard work this past year, especially for the contributions that led to an increase in our scores and reputation.

There was no discussion.

6. Major Curriculum Changes for the 2024-2025 Academic Year

The following item was endorsed by the Executive Committee of Council on March 29 by electronic vote and is recommended for Council's approval by regular motion, requiring a simple majority of members present and voting to carry.

Evan Bentz, chair of the Undergraduate Curriculum Committee (UCC), presented Report 3764, which describes curriculum changes affecting chemical engineering in the 2024-2025 academic year.

At the conclusion of the presentation, the following regular motion was moved and seconded –

THAT the proposed curriculum changes for the 2024-2025 academic year, as described in Report 3764, be approved.

There was no discussion and the motion was carried.

7. Information Reports

The following items were approved by the Executive Committee of Council at its March 26 meeting and are recommended to Council to receive for information.

(a) Engineering Graduate Education Committee Update

Lisa Romkey, chair of the Engineering Graduate Education Committee, presented Report 3766, which lists new courses approved in AER, CIV and MIE.

There was no discussion and the report was received for information.

(b) Undergraduate Assessment Committee Update, 2023-2024

Arthur Chan, chair of the Undergraduate Assessment Committee, presented Report 3765, an update on the committee's activities during the academic year concerning grading practices, policy discussions, and petitions.

There was no discussion and the report was received for information.

8. Other Business

The Speaker thanked outgoing alumni members of Council and outgoing standing committee chairs.

Dean Yip thanked Ning Yan, who is concluding her one-year term as interim Speaker of Council, and presented her with flowers as a token of Council's appreciation.

There was no other business.

9. Recognition of Service and Teaching Assistant Award Presentation

The Speaker congratulated Murray Grabinski of Civil & Mineral Engineering and Michael Stumm of Electrical & Industrial Engineering, who will be retiring this July. The professors were unable to attend the Council meeting.

Dean Yip acknowledged Tom Coyle, who concludes his second term as vice-dean, undergraduate in June, and congratulated Kate Allison, an MASc candidate in the Department of Mechanical & Industrial Engineering, and Katia Ossetchkina, an MASc candidate in the Department of Civil & Mineral Engineering, for each receiving the Faculty's 2024 Teaching Assistant Award.

Ramin Farnood acknowledged Michael Sefton, professor in Chemical Engineering & Applied Chemistry, who will be celebrating his 50th work anniversary in July.

The professors and Teaching Assistant Award recipients received gifts from Dean Yip on behalf of Council. The retiring professors will receive their gifts at a later date.

10. Discussion Item: FASE Facility Master Plan Update

Heather MacLean, vice-dean, strategic and Alistair Vaz, senior planner, University Planning, Design & Construction, updated Council on the FASE Facility Master Plan. Professor MacLean thanked the master planning team, which includes Mr. Vaz; Tom Saint-Ivany, FASE director, facilities & infrastructure planning; and special projects officer, Rochel Burkhardt.

The Facility Master Plan updates the previous master plan developed in 2016 and will respond to significant changes regarding departments, roles, and the transitions made to online and hybrid work arrangements as a result of the pandemic. It will be informed by the self-study created for the December 2023 Faculty external review, address recommendations of the

review team, and provide a foundation for the development of the Faculty's academic plan. The goals of the planning process are to build a comprehensive catalogue and assessment of current space use and future needs; outline renovation and improvement projects to respond to these needs; and identify larger capital investments through additions and new buildings, either through sole sponsorship or through partnership across the University's campuses and various land holdings.

Presenting slides, Mr. Vaz provided an overview of the master planning process, space planning framework, stakeholder consultations and next steps.

The master planning team has completed the *gather and define* stage of the process, cataloguing the space in each of the Faculty's buildings, including Dufferin Lands (Downsview) and Gull Lake Survey Camp.

It is now in the *engage and analyze* phase and making good progress with stakeholder consultations. In person undergraduate student consultations were conducted a week ago and will be followed by a student survey. Some of the feedback gathered so far acknowledged the quality of our spaces, the need to improve air quality, and the availability of informal space. Consultations are planned for the next few months with the Dean's Office and academic units. The team will also hold a number of workshops on topics such as AV and IT infrastructure, universal design and equity, undergraduate labs and fabrication spaces, research labs, open spaces, and climate resilience and sustainability. The consultations and workshops will help the team understand what the Faculty's strategic objectives are, how they have evolved from the last plan, and what the guiding principles should be to measure against.

After the engage and analyze phase, the team will work with the Faculty on the *focus and plan* stage where it will develop space planning strategies and outline opportunities and recommendations. The outcome of this stage will be a draft Facility Master Plan document.

Finally, in the *refine* and *repor*t stage, the planning team will refine the draft document and its short- and long- term goals and targets. The final deliverable will be a Final Report/Master Plan document. The team is unlikely to meet the initial deadline of the summer of 2024 due to the alignment with the academic planning process. Council will be updated as the team works through the remaining process steps.

During discussions, some departments offered to assist in promoting the undergraduate student survey through their undergraduate offices.

It was confirmed that graduate students, teaching assistants and alumni will be included in consultations, and that access to equipment, fabrication and lab space and club and hybrid meeting space will be considered.

Workshops regarding design, health and safety will be held. The planning team was urged to include members of the community who have disabilities in the universal design and equity workshop so they can share their lived experiences. It was also recommended that the review's

guiding principles include universal design and input from Indigenous peoples, and that we should aim to exceed, not just meet, standards.

Members discussed the need to respect the university's heritage when considering renovations to existing buildings. It was pointed out that some historically named buildings are in disrepair. The planning team has not yet begun a specific review of heritage buildings but will develop workshops to review these aspects from the perspective of the Faculty and per university benchmarks such as universal design.

When reviewing Gull Lake, the team will consider the investments made by FASE over the last decade and how the space may evolve in the future. Other groups within the university may be interested in using this space, which could help Engineering offset costs.

Members discussed the need to consult broadly when planning shared service and event spaces, including with academic units. An example of poor planning was given of the elevators being too small in Myhal to accommodate caterers' palettes. Sometimes these spaces are constrained by university rules. The space in Myhal will be audited more closely in a much more detailed parallel study, which could be replicated for other buildings.

The largest allocation of space is for offices held by academic units and the Dean's Office (which is a catch-all for shared services such as the Registrar's Office and information technology). The perception and reality of empty and duplicated space for students and administration will be examined, especially in light of shared or hybrid spaces.

The planning team will work with Facilities & Services to align with the findings of the university's recent maintenance report; for example, it will consider the end-of-life replacement of systems.

In closing, Mr. Vaz encouraged Council members to send him any follow up questions or remarks.

11. Date of Next Meeting

The schedule of governance meetings for 2024-2025 is being developed and will be shared with Council when available.

12. Adjournment

The Speaker wished students good luck with their exams, and all a great summer.

The meeting was adjourned at 1:57pm.

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