



**Council of the Faculty of Applied Science & Engineering**  
**Minutes of the Meeting of October 23, 2020**

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**PRESENT:** Javad Mostaghimi (Speaker), Chris Yip (Dean), Ravi Adve, Dionne Aleman, Grant Allen, Danita Allick, Thanoshan Ariyanayagam, Philip Asare, Julie Audet, Gisele Azimi, Mary Bellissimo, Tim Bender, Evan Bentz, Evan Beri, Raymond Bhushan, Helen Bright, Eric Bryce, Markus Bussmann, Eric Chan, Warren Chan, Margaret Chapman, Andrew Chen, Shou Chen, Hai-Ling Cheng, Alan Chong, Will Cluett, Tom Coyle, Jim Davis, Ibrahim Djebel Ameli, Khuong Doan, Feras Elsaid, Natalie Enright Jerger, Greg Evans, Saima Fancy, Jennifer Farmer, Ramin Farnood, Isabelle Ferrara, Diane Giang, Alec Gilvesy, Michael Guerzhoy, Piyush Gupta, Bezawit Haile, Krisztina Harmath, John Harrison, Marianne Hatzopoulou, Glenn Hibbard, Muktar Homam, Mark Jeffrey, Kyle Juliao, Mahzabin Karim, Bryan Karney, Elias Khalil, Omar F. Khan, Andrew Kidd, Dawn Kilkenny, Inho Kim, Penny Kinnear, Donald Kirk, Dana Kokoska, Christopher Kousinioris, Deepa Kundur, Antonio Liscidini, Tianyi Lyu, Melissa Ma, Don MacMillan, Saf Mahmood, Paul Malozewski, Elham Marzi, Mirjana Mijalkovic, Paul Milgram, Emily Moore, Dominic Mortimer, Shashank Motepalli, Farid N. Najm, Shivani Nathoo, Jun Nogami, Graeme Norval, Jeffrey Packer, Daman Panesar, Vlad Papangelakis, Joseph C. Paradi, Chul Park, Karl Peterson, Nelly Pietropaolo, Milos R. Popovic, Daniel Posen, Scott Ramsay, Lisa Romkey, Scott Sanner, Mubashir Shaikh, Shamim Sheikh, Patricia Sheridan, Daniel Shi, John W. Simpson-Porco, Brent Sleep, Micah Stickel, Ken Tallman, Mindy Thuna, Marianne Touchie, Chris Twigge-Molecey, Samantha Unger, Tony Vanvari, Chirag Variawa, Guan Ying Wang, Branden Wesseling, Bernard Wong, Victor Xin, Renee Yan, Michael Zachepylenko, Yu Zou

**GUESTS:** Marwan Abdelrahman, Chris Brown, Sharon Brown, Mikhail Burke, Leanne Dawkins, Elliot De Angelis, Sonia De Buglio, Marlyn de los Reyes, David Duong, Pierina Filippone, Zahir Firoze, Roger Francis, Shilpa Gantotti, Adam Gierlach, Darlene Gorzo, Stella Gregorski, Cathy Grilo, Rosemary Guido, Christina Heidorn, Gregory Hum, Phuong Huynh, Aarabhi Krishnakumar, Zachary LaPointe, Joanna Lau, Jess MacInnis, Teresa Miniaci, Marit Mitchell, Don Newton, Estelle Oliva-Fisher, Awale Omar, Shannon Osborne, Santino Pannoza, Dan Pettigrew, Zeeshan Rayees, Mark Rittinger, Saif Rjaibi, Ingrid Schvarczkopf, Marisa Sterling, Fahim Talukder, Alex Tichine, Taufik Valiante, Allison Van Beek, Geoff Wichert, Nefeteria Wickham

**SECRETARIAT:** Anna Limanni, Alexander Schroen, Allison Van Beek, Caroline Ziegler (Secretary of Council)

## **1. Speaker's Welcome**

Faculty Council Speaker Javad Mostaghimi called the first meeting of 2020-2021 to order at 12:10 pm. He welcomed members and guests, acknowledged the University's use of traditional land and reviewed protocols for the virtual meeting. There were no questions.

## **2. Approval of Agenda**

The agenda and majority of reports were distributed on October 19. A companion document to Report 3670 Revised, a corrected Report 3663 Revised, and a memorial tribute to Professor Emeritus Van Hurdle were distributed on October 22.

The agenda was revised to place Report 3670 Revised earlier in the proceedings as the presenter had to leave the meeting early. The order of Reports 3666 and 3669 were reversed so that Report 3669 came first.

There was no discussion and on a regular motion duly moved, seconded and carried, the agenda was approved as revised.

## **3. Introduction of New Faculty**

New faculty members were introduced by their respective Chairs or Directors: Philip Asare (Studies in Transdisciplinary Engineering Education & Practice), Michael Guerzhoy (Engineering Science), Elias Khalil (Mechanical & Industrial Engineering), Omar Khan (Biomedical Engineering), and Margaret Chapman, Mark Jeffrey and John Simpson-Porco (Electrical & Computer Engineering).

## **4. Creation of the Professional Experience Co-op Program**

Tom Coyle, Vice-Dean Undergraduate, presented Report 3670 Revised, a proposal to replace the Professional Experience Year (PEY) Internship Program with a new Professional Experience Co-op Program. Professor Coyle also shared a companion document which briefly sets out implementation plans for the program.

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

THAT the creation of the Professional Experience Co-op Program, as described in the major modification proposal attached to Report 3670 Revised, be approved effective September 2020.

Several faculty and students expressed their support for the proposed program, including the Dean and the President of the Engineering Society. It was also reported that many students opposed the program.

The motion carried.

## **5. Adoption of the Minutes of the Previous Meeting**

No errors or omissions were noted in the minutes of the April 29, 2020 Council meeting and on a regular motion duly moved, seconded and carried, the minutes were approved.

## **6. Memorial Tribute**

Brent Sleep, Chair of the Department of Civil & Mineral Engineering, read the following tribute in memory of Professor Emeritus Van Hurdle.

Professor Hurdle was born on December 27, 1935, in Pocatello, Idaho, but grew up in the smaller nearby town of Blackfoot. After finishing high school, he majored in physics at Berkeley for one year then switched to civil engineering.

After graduation from Berkeley, he worked as a surveyor for the California Division of Highways (now Caltrans) for a few months, principally on the scenic Highway 1 in the Big Sur area, then spent two years in the US Army Corps of Engineers, where he was stationed in Germany with the 79th Engineer Battalion (Construction). While in the 79th, he supervised various construction projects, the largest of which was a helicopter parking pad near Hanau, Germany, and took part in the cleanup after an extremely damaging earthquake in Agadir, Morocco. After his required military service was over, he worked again for the California Division of Highways' San Luis Obispo district, then earned a master's degree in civil engineering at the University of California's Institute of Transportation and Traffic Engineering. After completing his degree, he again worked for the California Division of Highways' San Luis Obispo district.

In San Francisco, Professor Hurdle spent several years designing highways, then after obtaining his license as a Professional Engineer, became involved in "freeway operations". During this time, he conducted a study of the operation of a segment of Interstate Highway 580 in Oakland, California, that led to a truck ban, making it the only Interstate Highway in the US where trucks were not allowed – and was in charge of conducting the first "Functional Classification" study of the San Francisco Bay Area. He was also chairman of the San Francisco district's "Safety Review Committee", which reviewed all plans for state highway projects as well as the finished projects for safety hazards and spent a good deal of time observing rush hour operation of the area's freeways.

At the end of 1968 Professor Hurdle returned to Berkeley's Department of Civil Engineering to work on a PhD program - a program that included only two Civil Engineering courses in two years of course work, the rest being in Statistics and Operations Research. Until starting work on his dissertation, he worked half time for the California Division of Highways, reviewing all state highway projects in the Bay Area for traffic handling capacity, a job that involved a considerable amount of redesign of signalized intersections.

His dissertation, done under the supervision of Gordon Newell, dealt with bus scheduling, though he maintained an interest in traffic engineering, the area to which he returned for most of his later research work. After finishing his PhD in 1971 he worked as a research engineer at UC

Berkley's Institute of Transportation and Traffic Engineering, doing mainly teaching, but continuing his research into public transit planning.

In 1975, Professor Hurdle moved to Toronto with his family, taking a teaching position at the University of Toronto's Department of Civil Engineering. During his years there, he taught undergraduate courses in Transportation Operations, Traffic Engineering Surveying, Probability Theory and Mathematics (2nd year), as well as graduate courses in Highway Design, Queuing Theory and Stochastic Aspects of Transportation. He was also involved in teaching at his Department's Gull Lake Camp and was in charge of the camp for several years.

At the University of Toronto Professor Hurdle's research efforts were almost entirely devoted to highway traffic issues, with the exception of a small amount of work on public transit planning, and a single paper on highway design, a leftover from his days as a working engineer, where developing new methods of analysis was not considered research but just part of the job. Starting in the early 1970's and for many years he was an Associate Editor of "Transportation Science", the transportation journal of the Operations Society of America. He also devoted a great deal of time to the Transportation Research Board Committee on Highway Capacity and Level of Service, the committee responsible for preparing and publishing the "Highway Capacity Manual".

In 2001 Professor Hurdle retired from the University of Toronto, though he taught Traffic Engineering to fourth year students one additional time after formal retirement. He thoroughly enjoyed his years of retirement, spending time in California and the West and in Europe.

By regular motions duly moved, seconded and carried, it was resolved that Council record with deep regret the death of Professor Hurdle on June 1, 2020, and that this tribute be inscribed in the minutes of this meeting with copies sent to Professor Hurdle's family as an expression of Council's respect and gratitude.

Council observed one minute of silence in honour of Professor Emeritus Van Hurdle.

## **7. Business Arising: Committee Appointments**

The Speaker presented Report 3761, an update on 2020-2021 appointments to Faculty Standing Committees and the Academic Appeals Board since the April 29, 2020 meeting.

There were no questions, and the report was received for information.

## **8. Report of the Dean**

Dean Yip welcomed all to the Council meeting.

### **(a) Pandemic Planning**

The Faculty's remote access guarantee will remain in place for the Winter Term. Many changes have been put in place on campus to ensure those who visit can move through our buildings

with physical distancing. It is U of T policy for the university community to wear non-medical masks or face coverings indoors in common-use spaces, and the university is offering every student, faculty member, staff member and librarian two free non-medical cloth face masks.

**(b) Recruitment and Admissions**

We welcomed 1,390 new first year students to our programs for 2020-2021, exceeding our goal and reflecting the keen interest in U of T Engineering despite the fact that we are currently virtual. Almost 500 students are international (visa), representing citizenship from 49 countries. Twenty-seven percent come from studying outside of Canada, in institutions across 58 countries. Over 37 percent are female, and over 35 percent are international. This is an amazing achievement; thank you to all who were involved.

**(c) Virtual Convocation**

The Fall Virtual Convocation Ceremony will be on Saturday, November 21 at 12:00 pm. All are encouraged to live-stream the event and celebrate our graduates.

**(d) Impact Report 2020**

In September, we published *Impact Report 2020*. This reimagined annual report provides an at-a-glance overview of the current state of our Faculty. Also published was *By the Numbers 2020*, a complement to the *Impact Report* that delivers detailed data and statistics that underpin our achievements. Hard copies have been delivered to all departments and institutes, and both reports are available to download from the Faculty's website.

**(e) Facilities and Infrastructure**

The Wallberg Building roof-top Sustainable Research Laboratory (S-Lab) will be a new, purpose-built facility at the gateway to the St. George campus, designed to foster bold experimentation and act as a catalyst for accelerating research and training activities around key cross-disciplinary sustainability issues. The project has concluded design development and is at the 50 percent construction documents stage. We should know if the CFI application is successful by the end of November.

The Gull Lake Survey Camp Bunkhouse Project is a joint Faculty-CivMin initiative for a new 96-person bunkhouse that includes a washroom and shower facility, a common room and a new septic system. The project was awarded this spring and construction has started, with delays associated with groundwater sampling and testing due to the presence of heating-oil contaminated water in the basement of an old house that was demolished to make way for the bunkhouse.

In collaboration with the Faculty of Arts & Science and the Provost, the Faculty has acquired space on the third and fourth floors of the soon-to-be-completed mixed-use condominium project at 203 College Street to house the Experiential Learning Hub. This space will accommodate the Engineering Career Centre's Professional Experience (PE) Co-op Program, the Engineering Summer Internship Program (ESIP), the Arts & Science Office of Experiential Learning & Outreach Support (ELOS), and Student Life's Career Exploration Centre, as well as

hoteling space for career-related staff from UTM and UTSC. The project is expected to be complete and available for student career services in early 2022.

Divisional Human Resources will move into the Bahen Centre once renovations to BA3008 and BA3012 have been completed. In addition to accommodating the HR suite of offices, the renovation project will provide offices for the Faculty's Assistant Director, Student Experience & Teaching Development, the new Mental Health Programs Officer, and the Faculty Health & Safety Advisor. Construction is expected to be complete by the end of the year.

During discussions, Dean Yip stated that we do not know when students will return to campus because this is dictated by the pandemic, although we hope we will be back in person for normal academic operations in September 2021. He elaborated on the comprehensive public health measures the university is taking to protect students, faculty and staff from COVID-19.

The following reports were endorsed by the Executive Committee of Council at its October 5 meeting and are for Council to consider for approval by regular motion. They require a simple majority of members present and voting to carry.

**9. Creation of the CRANIA NeuroModulation Institute as an Extra-Departmental Unit, Type C (EDU-C)**

Ramin Farnood, Vice-Dean Research and Chair of the Research Committee, presented Report 3653 Revised. The establishment of the CRANIA NeuroModulation Institute as an EDU:C in our Faculty will unite disparate neuromodulation education streams and disciplines and cultivate research, education and scholarly interest in this field.

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

THAT the Faculty establish the CRANIA NeuroModulation Institute (CNMI) as an Extra-Departmental Unit, Type C (EDU-C) as described in Report 3653 Revised, effective November 1, 2020.

There was no discussion and the motion carried.

**10. Proposed Changes to Course Evaluation Divisional Items**

Ken Tallman, Chair of the Teaching Methods & Resources Committee, presented Report 3663 Revised, a proposal to change the Faculty's Divisional Item 3, and Subset Items for Lab-Based, Lecture-Based, and Project-Based Courses.

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

THAT the following change to the Faculty's Divisional Item 3, as described in Appendix 1 to Report 3663 Revised, be approved effective October 2020.

- Remove Div. 3: "The course expanded my understanding of the ethical and

environmental issues concerning engineering in society.”

- Replace with X-1: U of T Course Evaluation Item Bank: “Compared to other courses, the workload for this course was:

Members discussed the relevance of Divisional Item 3 to the CEAB’s graduate attributes. This had been considered by the committee, however, a survey indicated that many faculty and students felt that Item 3 is not relevant to many courses and should be optional.

The motion carried.

A second regular motion was moved and seconded –

THAT the following change to the Faculty’s Subset Items for Lab-Based, Lecture-Based, and Project-Based Courses, as described in Appendix 1 to Report 3663 Revised, be approved effective October 2020.

- Remove Subset Items for Lab-Based, Lecture-Based, and Project-Based Courses.
- Replace with modified Subset Lecture-Based Item: “The course instructor delivered the course material in a clear and organized manner.”

A member suggested the committee consider other approaches when reviewing Course Evaluation Divisional Items in the future.

The motion carried.

### **11. Rules for Composition of Final Marks for Lecture Courses during COVID-19**

Daniel Posen, Chair of the Examinations Committee, presented Report 3669. To maintain consistency in the COFM of courses offered by the Faculty in a remote delivery mode, two new categories (individual mastery and collaborative work) are proposed.

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

THAT the proposed changes to the rules for Composition of Final Marks for Lecture Courses, as described in Report 3669, be approved.

Professor Posen confirmed that the change will apply for this remote learning period only. When COVID-19 is no longer an issue, the former rules will be re-instated.

The motion carried.

### **12. Maximum Final Assessment Grade when Accommodating for Missed Term Work**

Daniel Posen, Chair of the Examinations Committee, presented Report 3666 Revised, a proposal that will allow for courses delivered remotely due to COVID-19 to accommodate valid term work

petitions by transferring the weight of a missed term assessment to the final summative assessment (among other potential accommodations).

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

THAT changes to the maximum final assessment grade, as described in Report 3666 Revised, be approved.

There was no discussion and the motion carried.

### **13. Reports and Recommendations of Standing Committees**

The following reports were approved by the Executive Committee of Council at its October 5, 2020 meeting and are presented for Council's information.

#### **(a) Examinations Committee: Clarification of Policy for Mandatory Assessments**

Daniel Posen, Chair of the Examinations Committee, presented Report 3667, a proposal to clarify "reasonable notice" in the Academic Regulations requirement that provides that instructors may request that credit for a course be withheld in the event that a student has not completed a major piece of session work.

There were no questions and the report was received for information.

#### **(b) Examinations Committee: Changes to Rules for Undergraduate Course Assessments During Remote Course Delivery due to COVID-19**

Daniel Posen, Chair of the Examinations Committee, presented Report 3668, a proposal describing several changes to course assessments for Fall 2020 to help alleviate the uncertainty brought about by COVID-19. These include communicating details of the final summative assessment, increased flexibility regarding multiple choice questions on final, and guidance regarding exams written outside of Eastern Time for students located in different time zones.

There were no questions and the report was received for information.

#### **(c) Undergraduate Curriculum Committee: Inclusion of Sustainable Energy and Environmental Engineering Minors in the U of T Sustainability Scholar Program**

Bryan Karney, Associate Dean, Cross-Disciplinary Programs, presented Report 3664, a proposal to include our undergraduate Minor in Sustainable Energy and Minor in Environmental Engineering in the University of Toronto's Sustainability Scholars Program, which recognizes students pursuing studies in the area of sustainability with a U of T transcript notation. In order to add these minors to the Sustainability Scholars program, the title of the minors in the calendar entry and the notations on students' transcripts will now read "Sustainable Energy Minor (U of T Sustainability Scholar)" and "Environmental Engineering Minor (U of T Sustainability Scholar)", respectively.



There were no questions and the report was received for information.

**(d) Engineering Graduate Education Committee: Information Update**

Julie Audet, Vice-Dean, Graduate and Chair of the Engineering Graduate Education Committee, presented Report 3662. New APS, CHE and MSE courses were approved by the committee, as were minor modifications to CHE1134: Advances in Bioengineering, and to the Mechanical & Industrial Engineering MEng program.

There were no questions and the report was received for information.

**14. Other Business**

The Engineering Society's Vice-President, Academic thanked the Speaker and Council for the presentations and for the opportunity to participate in discussions. She looks forward to having more student representation at future meetings.

There was no other business.

**15. Date of Next Meeting**

The next meeting of Faculty Council is on December 2, 2020.

**16. Adjournment**

The meeting was adjourned at 2:00 pm.

/cz