



**Minutes of the Faculty Council Meeting of
October 25, 2016 at 12:10 p.m.
Michael E. Charles Council Chamber (GB 202)**

PRESENT

Doug Reeve (Speaker)
Hanin Afzal
Dionne Aleman
Grant Allen
Cristina Amon (Dean)
Giselle Azimi
Alexander Baker
Joe Baptista
Mansoor Barati
Jason Bazylak
J. Christopher Beck
Olga Bondarev
Chris Bouwmeester
Esmeralda Bukuroshi
Markus Bussmann
Wilfred Cho
Alan Chong
Tom Coyle
Ayesha David
Jim Davis
Khuong Doan
Stark Draper
Jeff Dryden
Hannah Eng
Greg J. Evans
Carolyn Farrell
Marie Floryan
Jason Foster
Mark S. Fox
Marina Freire-Gormaly
Stefano Girardo
Billy Graydon
Krisztina Harmath
Marianne Hatzopoulou
Fay Huang
Calvin Yu Huynh
Lauren Ip
Charles Q. Jia

Solmaz Karamikamkar
Jade Khiev
Dawn Kilkenny
Mark Kortschot
Frank Kschischang
Elias Kyriacou
Chi-Guhn Lee
Keryn Lian
Antonio Liscidini
Don MacMillan
Milan Maljkovic
Brenda McCabe
Farid Najm
Jun Nogami
Graeme Norval
Doug D. Perovic
Rafael Quintero-Bermudez
Savannah Sarosiak
Shoshanna Saxe
Jane Seo
Ali Sheikholeslami
Jeffrey Siegel
Craig A. Simmons
David Sinton
Brent Sleep
Samantha Stuart
Micah Stickel
Kenneth Tallman
Steven Thorpe
Deborah Tihanyi
Hamid Timborabadi
Marianne Touchie
Shahrokh Valaee
Chirag Variawa
Dawn Virginillo
Henry Xu
David Yang
Danny Zhang
Joanna Zhou

REGRETS

Edgar Acosta
Evan Bentz
Joan DaCosta
Mim Haque
John Harrison
Bryan Karney
Samuel McCulloch
Jeffrey Packer
Noah Poplove
Linda Ren
Mohammed Reza
Molly Shoichet
Jean Zu

GUESTS

Helen Bright
Chris Brown
Sharon Brown
Piyapong Buahom
Dani Couture
Christina da Rocha-Feeley
Jennifer Dixon
Carol Finlay
Monica Franklin
Surath Gomis
Leslie Grife
Cori Hanson
Mike Klassen
Jennifer Lancaster
Susan Lee
Patrick Marquis
Anthony Morra
Estelle Oliva-Fisher
Catherine Riddell
Alex Tichine
Victor Xin
Caroline Ziegler (Secretary)

1. Speaker's Welcome and Adoption of Agenda

Council Speaker Doug Reeve thanked and welcomed members to Faculty Council. As this was the first meeting of the 2016-2017 academic year, he invited those present to stand up by constituency group and introduce themselves.

The agenda and meeting package were distributed on October 16, 2016.

On a motion duly moved, seconded and carried, it was resolved –

THAT the agenda be adopted.

2. Introduction of New Faculty Members

Brent Sleep, Chair of the Department of Civil Engineering, introduced his new faculty members, Shoshanna Saxe and Marianne Touchie.

Micah Stickel, Chair, First Year, introduced new faculty member, Chirag Variawa.

Farid Najm, Chair of The Edward S. Rogers Sr. Department of Electrical & Computer Engineering, introduced his new faculty member, Hamid Timorabadi.

Several other new faculty members not in attendance will be introduced at the December 1, 2016 Council meeting.

3. Adoption of Minutes of Previous Meetings

No errors or omissions were noted on the minutes of previous meetings. On regular motions duly moved, seconded and carried, it was resolved –

THAT the minutes of the meeting of February 29, 2016 be approved.

THAT the minutes of the meeting of April 12, 2016 be approved.

4. Memorial Tribute to Ursula Franklin

The Speaker welcomed Monica Franklin and thanked her for attending the reading of the memorial tribute to her mother, University Professor Emerita Ursula Franklin.

Doug Perovic of the Department of Materials Science & Engineering read the following memorial tribute in honour of Professor Franklin.

Be it resolved THAT –

The Council of the Faculty of Applied Science & Engineering record with deep regret the death on July 22nd, 2016 of Ursula Martius Franklin.

Ursula Martius Franklin died peacefully at the age of 94 surrounded by family and friends. With Ursula's passing, Canada lost one of its most accomplished scientists and educators and one of its most renowned feminists and social activists.

Ursula Maria Martius was born in Munich on September 16, 1921, the only child of Albrecht Martius, a Lutheran archeologist, and Ilse Maria Martius (née Sperling), a Jewish art historian.

While studying mathematics and physics in Berlin she was removed from her studies towards the end of the Second World War and interned in a forced labour camp at the age of 22. She spent the rest of the war repairing buildings, forced to work outside in the cold and suffering from frostbite to her feet and legs. This damaged the lymphatic drainage system of her legs and left her in constant pain that afflicted her throughout her life.

After the war, she received her PhD degree in experimental physics at the Technical University of Berlin in 1948. Although her interests were deeply rooted in history, literature and law, she chose to study physics and math because as Ursula said: "the only things that could not be censored were mathematics and physics."

Following her PhD, Ursula won a scholarship, immigrated to Canada, and became a postdoctoral student at the University of Toronto in 1949. Soon after her arrival, Ursula met her husband-to-be Fred Franklin, also a German immigrant and an engineer. They joined the pacifist Society of Friends (the Quakers) and were married in 1952.

Ursula worked as a senior scientist at the Ontario Research Foundation from 1952-1967 specializing in the study of metals and alloys. During these years she also conducted what is possibly her greatest research accomplishment with the widest international impact. With nuclear research and testing moving forward at great speed, Ursula's devout pacifism as a Quaker pushed her to investigate whether radioactive isotopes produced by atmospheric weapons tests were being absorbed by humans. Like a real-life tooth fairy she collected many baby teeth from family, friends and colleagues and detected large quantities of strontium-90, an isotope known to significantly increase the risk of cancer of the blood and bones. Contrary to previous thought that radioactive fallout from weapons tests remained in the upper atmosphere, Ursula's work led to the Partial Nuclear Test Ban Treaty signed by 135 countries outlawing nuclear detonations on land, in the atmosphere and in space.

Following the creation of a new Centre for Materials Research, Ursula rejoined the University of Toronto in 1967 as the first woman professor in the Department of Metallurgy and Materials Science and only the second female professor in the Faculty of Applied Science and Engineering.

Interestingly, at that time our Faculty Council meetings were held at Hart House, which was not open to women. Dr. Franklin had to get special dispensation to attend until Hart House finally opened its doors to women in 1972. Ursula always championed women who were younger than her in the fields in science and engineering and beyond.

During her years in Engineering at U of T, Ursula employed her expertise in physics, metallurgy and materials science and her knowledge of how materials have been used throughout history to pioneer her ground-breaking work in the field of archeometry – the analysis of archeological artifacts using modern materials science techniques. Through hundreds of publications, Ursula elucidated the cultural heritage of past civilizations by explaining how tools used in certain ways shaped human organization, culture and mindsets.

Prof. Franklin often spoke about the need to safely return to the earth all that we ‘borrow’, long before subjects such as life-cycle design, green manufacturing and sustainability became commonplace in engineering curricula.

In 1984, she was the first woman to be named University Professor at the U of T, a prestigious honour granted only to faculty of the highest standing.

Following her retirement from Engineering in 1989, Ursula embarked on her second career at U of T as a senior fellow at Massey College, where she worked from her office for most of her last 25 years. As one of the world’s leading interdisciplinary scholars, Massey’s environment suited her perfectly.

She received more than 25 honorary degrees and countless awards and medals. She was inducted into the Canadian Science and Engineering Hall of Fame in 2012.

Professor Franklin committed herself to social justice and to deeply engaged citizenship. Throughout her long life, she promoted the peaceful uses of science and an understanding of the social cohesion of technology—not simply the gadgets but rather how technology affects the ways humans work with each other in daily life.

Ursula Franklin will be remembered as a global pioneer, a trailblazer in science and academics, a staunch feminist and outspoken peace activist.

We also note, with regret, that her husband Fred passed away on September 19, 2016.

Be it further resolved –

THAT a record of her service be inscribed in the minutes of this Council, and that a copy be sent to her family as an expression of the respect and gratitude of the members of Council.

The Speaker assumed concurrence with this resolution, and Council stood to observe one minute of silence in honour of University Professor Emerita Franklin.

Jun Nogami, Chair of the Department of Materials Science & Engineering, stated that the department and Faculty will create a scholarship in honour of Professor Franklin, with details to be announced.

5. Business Arising from Previous Meeting: Standing Committee and Academic Appeals Board Membership Update

The Speaker presented Report 3501 Revised, an update to the membership of the Faculty's standing committees and the Academic Appeals Board since the April 12, 2016 Council meeting. Since the revised report was issued, Giovanni Grasselli has been appointed as the Civil Engineering faculty representative on the Scholarships & Awards Committee. An updated report will be posted on the Faculty's website.

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

6. Academic Appeals Board Update

Jason Foster, Chair of the Academic Appeals Board, presented Report 3513 which describes the number and type of appeals brought to the Board from September 2015 to September 2016, and the disposition of those appeals.

While there was significant variation in the nature of the appeals heard over the last year, two broad trends emerged: gaps in student and faculty member understanding of Faculty and University policies in the areas of verification of student illness and accommodations made through Accessibility Services, and challenges faced by students in accessing support services and preparing for successful reintegration caused by the Faculty's current academic standing and prescribed withdrawal period regulations.

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

7. Report of the Dean

Dean Cristina Amon welcomed members to Faculty Council and provided the following remarks.

(a) Infrastructure Projects

Last July we received notice that the infrastructure projects our Faculty submitted to the federal government's Post-Secondary Institutions Strategic Investment Fund (SIF) were approved. Through a combination of funding from the government, the Faculty and the sponsoring department or institute, we are investing \$31.6 million to support renovations to 89 laboratory facilities. This will benefit more than 330 of our researchers, including professors, graduate and undergraduate students.

The creation of the Dean's Infrastructure Improvement Fund (DIIF) was announced last spring. The DIIF funds large-scale infrastructure improvements within the Faculty where costs will be shared equally between the Faculty and the sponsoring department or institute. Although teaching and research laboratory improvements were preferred, general facility renovations with a construction value of over \$50,000 in areas of high impact or visibility – such as an expansion of the top floor of the Wallberg Building and renovations to the lobby of

the MIE building – were also considered. An advisory group met in the summer to review the 13 proposals received, 11 of which were funded for a total of approximately \$17 million.

Investing in our infrastructure is a key goal of our Faculty that will improve the experience of our students and researchers. Through SIF and DIIF projects and the CEIE, which will provide unique flexibility for new modalities of teaching and learning, we are that much closer to accomplishing our goal.

(b) Annual Report

We have published our eighth Annual Report of Performance Indicators, describing progress made toward our Academic Plan goals and the evolution of our Faculty. The report contains a wealth of data and metrics spanning 10 years and information on initiatives and programs launched over the past academic year. The full report is available on our website and was highlighted in our September newsletter. All are encouraged to review it and provide input.

(c) Self-Study and External Review

A self-study has been initiated in preparation for the upcoming external review of our Faculty. This is part of the University of Toronto's Quality Assurance Process, which reviews all Faculties, units and their programs a minimum of every eight years. Our Faculty was last reviewed in 2010.

External reviews provide an unparalleled opportunity to secure the expert advice of leaders in the field concerning academic and administrative issues, assess performance against leading international programs, and secure guidance on key strategic directions. The preparation we are doing now and the input you are providing will inform the planning process for the next Academic Plan, which we will begin next year.

In the spring of 2016, we established a working group to prepare an outline for the self-study, gather preliminary feedback from the Faculty's diverse stakeholders, and begin a reflective discussion on progress made toward our educational, research and other key goals. Broad consultations took place over the summer that included faculty, staff, alumni, students and postdoctoral fellows. Thank you for your thoughtful contributions throughout this process.

Working with feedback and input from the consultations, we have prepared a self-study that is being circulated to Chairs and Directors, the self-study working group and student leaders. It will be finalized by our Vice-Deans, and in a short while, posted on our website for the review of our broad Faculty community. The draft self-study is due to the Provost's office for feedback on November 29, with a final submission due on January 5.

The review team is scheduled to visit us from January 31 to February 2, 2017. Review team members are Vijay K. Dhir, former engineering dean at UCLA; David C. Munson, Jr., former engineering dean at the University of Michigan; and Indira V. Samarasekera, former president and vice-chancellor at the University of Alberta.

A summary of the review will be presented to University governance and made broadly available to faculty, staff, students and alumni.

(d) Working Groups and Steering Committees

Our Faculty has increasingly focused on engineering education over the past few years, with a number of faculty engaged in the pedagogy. We have also seen teaching stream appointments remain constant, between 19 and 22 since 2008.

A working group has been created to draft a proposal to create an institute for engineering education (name to be determined) as an extra-departmental unit, type A (EDU:A). The EDU:A will serve as an administrative home for teaching-stream faculty who do not align with traditional engineering disciplines, as well as the collaborative program in Engineering Education, and potentially, non-budgetary cross appointments.

I would like to thank chair Greg Evans and the working group members who will consult broadly on the creation of the institute. The group's goals include defining the institute's intended scope; providing an academic argument for its creation; describing its academic focus including program delivery, research focus and other activity or programming; and listing the faculty who may be actively engaged in the unit. The working group will begin consultations soon and will update Council at our December meeting. A report will be submitted for Faculty and University governance in the spring. I anticipate that the EDU:A will be launched in July 2017.

A steering committee has been created to review and assist with the implementation of the University of Toronto's Policy on Information Security and the Protection of Digital Assets, which includes the creation of an Information Risk Management plan. I would like to thank co-chairs Markus Bussmann and Alex Tichine and the other members of the steering committee for undertaking this task. We look forward to receiving their report in February.

(e) Admissions

We have had another remarkable year for undergraduate admissions, having one place for every 12 applications. We received over 12,000 applications, representing an approximate 7 per cent increase from last year which, at 1,018 registrations, is slightly under our target of 1,060.

Our efforts to broaden our admissions process by enabling a more complete appreciation of our candidates through web-based written and video questions has contributed to one of the most accomplished, talented and diverse first-year cohorts in our history. Our incoming class joined us from nine Canadian provinces and 49 countries around the world, with an average mark of 93.4 per cent. Forty per cent of our incoming first-year class are women, up from 32 per cent last year and 20 per cent 10 years ago. This is the largest proportion of women in our history and the highest in Canadian engineering schools by far. Congratulations to all and many thanks for your efforts. We look forward to another successful year ahead.

(f) Diversity

Our Faculty strives to increase diversity at all levels and in all forms, including typically underrepresented groups in Canada that include women and indigenous people.

We have undergone an intense hiring period this past year with 14 faculty hires. Several were introduced at today's meeting, with another group to be introduced in December and others joining us in 2017. I am pleased to report that of the recently-hired professors, nine are outstanding women. Fifty-five of our professoriate (21 per cent) are now women, up from 22 (9.5 per cent) a decade ago.

We are also committed to making progress in increasing the number of Indigenous people in our Faculty and hope to update Council with some initiatives in this area in the future.

(g) Engineering Career Centre and the PEY Internship Program

We have made some changes to the Engineering Career Centre (ECC) to respond to our Faculty's evolving needs. This includes a change in direction that will see the ECC, which oversees the PEY internship program, become more integrated within the Faculty, especially regarding student professional development. We will also articulate more clearly what the offices do and how they work together.

Brenda McCabe was appointed as the inaugural academic director. She will provide leadership and academic oversight around career advising, particularly how the ECC can work more effectively and grow collaboratively across the Faculty.

We are developing the position of executive director to introduce a business focus that identifies and strategizes new industry partners for all disciplines. Our former Registrar, Barbara McCann, is assisting with day-to-day administration on an interim basis while we undertake this search.

ECC and PEY will be topics of discussion at the town hall, co-hosted with the Engineering Society, on November 1.

(h) Convocation

Fall convocation is on November 7 from 10 am until noon. Micah Stickel will host the convocation breakfast at the Faculty Club from 7:30 to 9:00 am. This is a wonderful opportunity to celebrate with our graduates and meet their families, and as we have a large number of students graduating, all are encouraged to attend.

In response to a question, Dean Amon described measures we are taking to increase the number of female students in our Faculty. This includes raising the profile of engineering among high-school students; for example, members of Women in Science and Engineering (WISE) and EngSoc visit high schools to discuss the opportunities an engineering career can present for all students, and our recruitment office holds events locally and around the world, including the GLEE weekend.

The Speaker thanked Dean Amon for her update and acknowledged her as being a champion of diversity, especially regarding female students and professors.

8. Closure of Master of Engineering in Design and Manufacturing

Markus Bussmann, Vice-Dean, Graduate and Chair of the Engineering Graduate Education Committee, presented Report 3508, a proposal to close the Master of Engineering in Design and Manufacturing (MEng DM). The program has been offered since 2000 by a partnership of several southern Ontario universities. Despite the program's success for almost a decade, the global recession in 2008 resulted in companies being less willing to subsidize their employees' tuition and enrolments decreased. At the same time, our Faculty began to enhance our "regular" MEng program, which became more attractive to working engineers. In 2014, the current partners, McMaster, Queen's, Toronto and Western, decided to suspend enrolment and in early 2015, collectively agreed to wind down the program in its current form.

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

THAT the proposed closure of the Master of Engineering in Design and Manufacturing, to which admissions have been suspended, as described in the attached proposal by the Vice-Dean, Graduate Studies dated July 22, 2016, be approved with an anticipated program closure date of April 30, 2017.

In response to a member's question, Professor Bussmann confirmed that the three students currently enrolled in the program are on track to complete it before the program closes.

The motion carried.

9. Revised Terms of Reference for Faculty Research Leaders Award

David Sinton, Interim Vice-Dean, Research and Chair of the Research Committee, presented Report 3509, a revision to the terms of the Faculty Research Leader Award that limits the lifetime of a submitted application to two years, and requires a one-year delay before resubmission. This change is intended to encourage new applications and ensure that all applications are up to date for consideration in this program.

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

THAT the proposed revision to the terms of the Faculty Research Leader Award, as described in Report 3509, be approved effective the 2016-2017 academic year.

There were no questions and the motion carried.

10. Reports and Recommendations of Standing Committees

The following reports were approved by the Executive Committee at its September 23, 2016 meeting, and are being presented for Council's information.

(a) Engineering Graduate Education Committee: Update

Markus Bussmann, Vice-Dean, Graduate and Chair of the Engineering Graduate Education Committee, presented Report 3507, which lists new and deactivated courses, and minor course modifications.

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

(b) Community Affairs & Gender Issues Committee: Planned Activities for 2016-2017

Keryn Lian, Vice-Chair of the Community Affairs & Gender Issues Committee, presented Report 3506, which describes the two main goals of the committee this year. These are to complete – and if possible begin the implementation of – a Diversity Climate Survey, and to supplement outreach efforts by promoting the production of online videos through a competition that showcases the student experience in our Faculty.

Professor Lian noted that due to timing issues, the committee was unable to hold the video competition this fall as planned, but said that the logistics are now in place for the competition to be held during the next academic year.

In response to a question about the survey design, Professor Lian confirmed that the committee had carefully considered and has plans to mitigate the traditionally low response rate of people with mental and physical disabilities.

The item was received for information.

11. Service and Awards Presentations

Jun Nogami, Chair of the Department of Materials Science & Engineering, acknowledged the contributions to the Faculty and department made by Professor Emeritus Zhirui Wang, who retired in June 2016.

Dean Amon recognized Professor Mark Fox of the Department of Mechanical & Industrial Engineering, who was named Distinguished Professor of Urban Systems Engineering in summer 2015, and Professor Craig Simmons of the Department of Mechanical & Industrial Engineering and IBBME, who was named Distinguished Professor of Mechanobiology in January 2016.

Dean Amon presented Professor Emeritus Wang, Professor Fox and Professor Simmons with gifts as a token of the Faculty's appreciation.

12. Discussion Item: 2016-2017 Engineering Society Mid-Course “SpeakUp” Project

Samantha Stuart, Vice-President, Academic of the Engineering Society, presented EngSoc’s mid-course SpeakUp project, which is the creation and piloting of a mid-course survey of undergraduate students that will collect casual student dialogue about course components online, organize it, and offer professors an opportunity to discuss it with EngSoc academic administrators.

The project is intended to counter feedback apathy caused by the perceived inconvenient timing and interface of the Faculty-administered teaching evaluation surveys, and the feeling that students’ responses have little impact when collected at the end of the term. It will do so by making the SpeakUp platform available to students throughout the academic year as a central destination across disciplines, linking it to student digital hubs – such as the examinations database – and improving the imaging and clicking interfaces. The data collected will be accessible only by disciplinary class representatives and academic directors, with the intention of discovering potential areas of course improvement to discuss with respective professors.

The platform was developed in the summer of 2016; the first review of the data collected took place at the end of September, the second in mid-October, and a third deadline was promoted in early November.

To help raise awareness of the SpeakUp initiative, EngSoc has created a task force to promote the platform through posters, class announcements and other means. For the winter 2017 semester, EngSoc is investigating the logistics of sharing the platform with interested professors via a custom course login to improve student awareness of the platform, and feedback mechanisms within their classrooms. EngSoc’s goal is to increase the response rate from 310 to 500 by the November collection deadline.

During discussions, Ms. Stuart explained that EngSoc has mechanisms in place to visualize the data and create summaries for instructors. A member pointed out that the University has plans to pilot mid-course feedback this year.

Ms. Stuart thanked faculty members involved in the consultation process.

13. Other Business

There was no other business.

14. Date of Next Meeting

The next Faculty Council meeting is on December 1, 2016.

15. Adjournment

The meeting was adjourned at 1:42 p.m.