



**Minutes of the Faculty Council Meeting of  
February 29, 2016 at 12:10 p.m.  
Michael E. Charles Council Chamber (GB 202)**

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**PRESENT**

Doug Reeve (Speaker)  
Cristina Amon (Dean)  
Grant Allen  
Jason Anderson  
Giselle Azimi  
Mario Badr  
Joe Baptista  
Aimy Bazylak  
J. Christopher Beck  
Sharon Brown  
Markus Bussmann  
Michael E. Charles  
Hai-Ling Margaret Cheng  
Alan Chong  
Tom Coyle  
Jim Davis  
Ernesto Díaz Lozano Patiño  
Khuong Doan  
Jeff Dryden  
Giovanni Grasselli  
Benjamin Hatton  
Oghosa Igbinakenzua  
Lauren Ip  
Ezzat Jaroudi  
Bryan Karney  
Jade Khiev  
Dawn Kilkenny  
Mark Kortschot  
Antonio Liscidini  
Don MacMillan  
Brenda McCabe  
Hani Naguib  
Farid Najm  
Jun Nogami  
Graeme Norval  
Jon Albert Obnamia  
Jeffrey Packer  
Aleksandar Prodic  
Lisa Romkey

Jonathan Rose  
Shamim Sheikh  
Ali Sheikholeslami  
David Sinton  
Brent Sleep  
Micah Stickel  
Pierre Sullivan  
Deborah Tihanyi  
Olev Trass  
Stephanie Tzanis  
Shahrokh Valaee  
Lesley Warren  
Lydia Wilkinson  
Paul Yoo  
Kevin Yu  
Aaron Yurkewich

**REGRETS**

Levente Diosady  
John Harrison  
Elias Kyriacou  
Alexander McLean  
David Yang  
Christopher Yip  
David Zingg

**GUESTS**

Farheen Ahmed  
Helen Bright  
Chris Brown  
Dani Couture  
Christina da Rocha-Feeley  
Michelle Deeton  
Vivek Goel  
Leslie Grife  
Cori Hanson  
Susan Lee  
Dan Pettigrew  
Alex Tichine  
Geoff Wichert  
Caroline Ziegler (Secretary)

## **1. Speaker's Welcome and Approval of Agenda**

Council Speaker Doug Reeve thanked members joining the third Faculty Council meeting of the 2015-2016 academic year and welcomed all present, in particular student members of Council.

The Speaker presented a history of the life of Sandford Fleming, a prominent Canadian engineer whose work was transformational for Canada, the British Empire and the world, for whom the Sandford Fleming Building is named.

Born in Scotland in 1827, Sandford Fleming apprenticed as a surveyor in his teens and emigrated to Canada in 1845. He surveyed the Grand Trunk Railway from Toronto to Collingwood in 1852. In 1867, he was appointed engineer-in-chief of the Intercolonial Railway, which ran between Halifax and Quebec. In this year of confederation, the Intercolonial was critical to Nova Scotia and New Brunswick joining Canada. Fleming's insistence on building the bridges of iron instead of wood was controversial at the time, but was soon vindicated by their resistance to fire. From 1871 to 1880, Fleming served as chief engineer of the Canadian Pacific Railway, linking eastern Canada to the Pacific. Fleming retired from surveying in 1880 to take the position of Chancellor of Queen's University, which he held until his death in 1915.

Fleming's other notable achievements include creating the Royal Canadian Institute to support the development of surveying and engineering (1849), inventing Standard Time by proposing a single, worldwide 24-hour clock (1876), at the age of 56, exploring what is now known as Roger's Pass through the Selkirk Mountains (1883), and being knighted by Queen Victoria (1897). In addition, Fleming is the namesake for the University building formerly known as the "Old Physics Building", which Engineering took over after vacating the Little Red Skule House in 1966.

As a wilderness surveyor, railway engineer, builder of companies, and thought leader in science, telegraphic communication, university education and standardized time, Fleming was an engineer extraordinaire.

The Speaker stated that the meeting agenda and reports were distributed on February 12, and the memorial tribute was distributed on February 25. On a motion duly moved, seconded and carried, it was resolved –

THAT the agenda be approved.

## **2. Introduction of New Faculty**

Brent Sleep, Chair of the Department of Civil Engineering, introduced his new faculty member, Lesley Warren.

### **3. Adoption of the Minutes of the Previous Meetings**

No errors or omissions were noted on the minutes of the October 28, 2015 meeting. On a regular motion duly moved, seconded and carried, it was resolved –

THAT the minutes of the meeting of October 28, 2015 be approved.

No errors or omissions were noted on the minutes of the December 8, 2015 meeting. On a regular motion duly moved, seconded and carried, it was resolved –

THAT the minutes of the meeting of December 8, 2015 be approved.

### **4. Memorial Tribute to Professor Emeritus James Smith**

Grant Allen, Chair of the Department of Chemical Engineering and Applied Chemistry, read the following memorial tribute in honour of Professor Emeritus James Smith.

Be it resolved -

THAT the Council of the Faculty of Applied Science & Engineering record with deep regret the death on Friday, November 13, 2015 of Professor Jim Smith.

After completing a BAsC and MASc at the University of British Columbia, Professor Smith began his professional career in 1955 when he joined DuPont Canada as a process engineer. He obtained his PhD in 1960 at Imperial College and then began teaching and research at the University of British Columbia. He joined the Department of Chemical Engineering and Applied Chemistry at the University of Toronto in 1962 and was promoted to full professor in 1972. He served in many leadership roles in the University, including as Assistant Head for Professor Jack Breckenridge and Associate Chair to Professors William Graydon and Michael Charles. He was the first Director of the Office of Occupational Health and Safety from 1981 to 1985 and in 2000, chaired a special committee that reviewed the University's Health and Safety programs. He served as Chair of the Department from 1985 to 1996, at which time he retired to become Professor Emeritus. Over his career he supervised 13 PhD, 20 MASc and 50 MEng students. He remained very active after his retirement within and outside the University in roles that included the Manager of SLOWPOKE 2 Nuclear Reactor Decommissioning process, Chair of the Chemical Engineering Honours and Awards Committee, and as Senior Technical Advisor to Eco-Tec Inc.

Jim had an outstanding ability to innovate based on his deep and practical knowledge of chemical engineering and industrial chemistry coupled with exceptional creativity. He was the author or co-author of over 100 scientific publications, and inventor or co-inventor of over 30 U.S. Patents. He was actively involved in several spin-off companies, including being President of Apollo Environmental Systems, and Director and shareholder of ArborScience Inc., Polyphalt Inc., and Thor Technologies Corp. Among his greatest achievements is the development of the BioGas Purification System. Biogas is a mixture of methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>) and is often

contaminated with toxic concentrations of hydrogen sulfide (H<sub>2</sub>S). The technology is a biogas scrubbing process for the removal of H<sub>2</sub>S and particulate matter from biogas as it is produced. Using a patented, high efficiency gas-liquid contacting process, H<sub>2</sub>S is absorbed and the gas is purified for reuse in power generation facilities, cogeneration facilities, boiler units, and other heating applications.

As Chair, Professor Smith was a truly inspiring leader whose efforts continue to be felt to this day. He hired 23 faculty and created an exceptionally supportive community atmosphere that helped faculty, staff and students to thrive and reach their full potential. He was a pioneer in academic strategic planning, leading a Future State Visioning process that included a two-day retreat with faculty, staff, students and alumni to develop plans for enhanced teaching and research, and build a strong community spirit. He initiated our annual Department dinner, bringing together faculty, staff, alumni and industry partners each year to celebrate our achievements; the dinner is now in its 31st year and has close to 400 attendees. He made a point of reaching out to new faculty to get their opinions on the direction of the Department and also in supporting and recognizing the important role of our administrative staff. He had a deep interest in students. He advised graduate students whether or not he was their supervisor and made a point of encouraging and recognizing outstanding teaching.

Jim was a Fellow of the Chemical Institute of Canada and recipient of the R.S. Jane Memorial Award, the premier award from the Canadian Society for Chemical Engineering. He received a Distinguished Service Award of the Society of Chemical Industry of the United Kingdom. He was a registered Professional and Designated Consulting Engineer in the Province of Ontario.

Professor Smith had a profound impact on our Department, the University and on chemical engineering in Canada and beyond. He was a great example to us all.

Be it further resolved –

THAT a record of Professor Emeritus James Smith's service be inscribed in the minutes of this Council, and that a copy be sent to his family as an expression of the respect and gratitude of the members of Council.

Professor Allen added that he was one of the 23 faculty members Professor Smith had hired in a department of approximately 30 professors, as were many at the present Council meeting, and that he owes Professor Smith a great debt of gratitude.

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

## **5. Business Arising from the Meeting of December 8, 2015**

### **(a) Research Committee Goals, 2015-2016**

David Sinton of the Research Committee presented Report 3484, the committee's goals for the academic year. These include continuing the Faculty's >7% year-over-year Tri-Council growth, increasing success rates in Early Researcher Award, Ontario Research Fund, and Canada Foundation for Innovation that exceed Ontario and Canada average rates, and increasing participation, funding levels and success rates in NSERC Discovery Grant, CREATE, Strategic Project Grants, and Strategic Research Networks.

In response to a member's question, Professor Sinton acknowledged the importance of increasing undergraduate student participation in research, and undertook to discuss this further with the committee.

The report was received for information.

### **(b) Corrected Admissions Update 2015**

Benjamin Hatton of the Admissions Committee presented a revision to Report 3482, which had been received for information at the December 8, 2015 Faculty Council meeting. The revised report corrects minor errors on page three regarding the number of students and percentage of the 2015 incoming class who are female.

Registrar Don Macmillan circulated a second revision to the report, correcting transposed numbers on page seven regarding registered students in Track One and Engineering Science. Report 3482 will be updated to include this revision.

## **6. Closure of EDU:C – Division of Environmental Engineering and Energy Systems**

Bryan Karney, Director of the Division of Environmental Engineering and Energy Systems, presented Report 3488, which proposes to close the Division. This follows Council's October 28, 2015 motion to approve the closure of the graduate collaborative program in environmental engineering, which has been the Division's sole responsibility since the creation of the Cross-Disciplinary Programs Office in 2009. The Division's other responsibility, to promote cross-disciplinary environmental research, had been absorbed by the Faculty's departments and the Vice-Dean, Research.

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

THAT the Division of Environmental Engineering and Energy Systems be closed effective June 30, 2016.

There were no questions and the motion was carried.

## 7. Change to Probation Policy

Pierre Sullivan, Chair of the Examinations Committee, presented Report 3492, changes to the Faculty's Probation Policy that will ease the requirements for students to lift probation and remove unnecessary stresses as they advance in their program. The revised policy will allow a full-time student who has a non-repeated session with a weighted session average of 60% or greater while maintaining a minimum 1.50 cumulative GPA to have his or her academic standing improved by one step. A part-time student will have his or her academic standing improved by one step after having completed the minimum number of sessions required to have grades registered in four or more non-repeated courses with a weighted average of 60% or greater and a CGPA of 1.50. These revisions will bring the policy in line with practices in other divisions at the University and at external institutions.

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

THAT, beginning in the winter 2016 term, Academic Regulation VIII.1 [8.1] will be changed to:

### 1. Removing Probation:

A full-time student who has a non-repeated session with a weighted Session Average of ~~70%~~ 60% or greater while maintaining a minimum 1.50 cumulative GPA will have their academic standing improved by one step. For example: a student who has an academic standing of "Repeat Probation" after one session with a weighted Session Average of ~~70%~~ 60% or better and a CGPA of 1.50 will have a new academic standing of "Proceed On Probation."

A part-time student will have their academic standing improved by one step after having completed the minimum number of sessions required to have grades registered in four or more non-repeated courses with a weighted average of 60% or greater and a CGPA of 1.50.

Note: A student is considered full-time when they are enrolled in four or more courses in a session, and part-time when they are enrolled in three or less courses in a session.

An academic standing of Proceed on Probation, or On Repeat Probation will be removed and changed to Pass (or Honours if applicable) at the conclusion of the final session during which all requirements for graduation are satisfied.

In response to a member's question, Registrar Don Macmillan confirmed that the new policy will be implemented in the current winter 2016 session.

The motion was carried.

## **8. Major Curriculum Changes for 2016-2017**

Graeme Norval, Chair of the Undergraduate Curriculum Committee, presented Report 3489, a proposal for a new elective course in chemical engineering as part of the bioengineering minor, and a new elective course in materials science and engineering.

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

THAT the proposed curriculum changes for the 2016-2017 academic year set out in Report 3489 be approved.

There were no questions and the motion was carried.

## **9. Revised Session Dates for the Summer 2016 Session**

Graham Norval, Chair of the Undergraduate Curriculum Committee, presented Report 3494, a change to the summer 2016 session date in response to a revision by the Faculty of Arts and Science that advanced the FINCA dates forward, with the impact that Engineering students would need to have registered and paid fees by the second day of classes.

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

THAT the revised APSC session dates for summer 2016 as set out in Report 3494 be approved.

There were no questions and the motion was carried.

## **10. Report of the Dean**

Dean Cristina Amon welcomed members to Council, and Professor Lesley Warren to the Faculty. She provided the following remarks.

### **(a) CEIE Update**

Construction is well underway on the CEIE and there will be much progress over the next few months. A second drill rig has been brought in to ensure that we meet our timeline for drilling the caissons, and as a result there will be an increased number of concrete trucks from nine to as many as 18 to 20 per day.

We are assembling four implementation working groups to review elements within the CEIE, including light fabrication, prototyping and work tools; TEAL classrooms, the auditorium, LCDs, furniture, A/V and room usage; floors five to eight, where the centres and institutes will be housed; and the lower level where student club space, the multimedia music room, 3D visualization lab and computer teaching lab will be located. These groups will meet weekly, and individuals who are interested in participating, including students, are invited to contact the Dean or Professor Emeritus Ron Venter.

The project management fees for infrastructure projects have been reduced from 3.5 per cent to 2.5 per cent, resulting in approximately \$1M savings for the building. Because of the effect the declining Canadian dollar has had on costs and the increase required for equipment and A/V, this welcome news means we are on budget for construction and costs.

We were thrilled to learn last Thursday that, as part of its 2016 budget, the Government of Ontario has pledged its support in the amount of \$15M toward the CEIE. This significant financial investment is designed to strengthen the Innovation SuperCorridor in Ontario.

In response to a member's question about the timeline, Dean Amon confirmed that construction is expected to be completed in the summer of 2017, with the building partially occupied by that fall. There will be reception on June 29, 2016 to celebrate the province's donation and to close donations and thank donors. This will also mark the half-way point of construction.

#### **(b) Undergraduate Applications**

We have had another record-setting year for undergraduate applications. As of last week, our application numbers were at 12,742 compared with 11,809 this time last year, an 8 per cent increase. Female applications have risen by 11 per cent, and international applications by 12 per cent. Among Ontario high school students, the Faculty is up 6 per cent, U of T applications are up 2.1 per cent, and engineering programs within the province are up 0.8 per cent. Across the province, the total number of applicants is virtually identical to this time last year.

The Dean congratulated everyone involved in the applications process, in particular the Admissions Committee and the recruitment team.

#### **(c) Dean's Strategic Fund**

The intent of the Dean's Strategic Fund is to encourage the implementation of ideas that have benefits across the Faculty that might otherwise not get started due to lack of start-up funding. This year, we are pleased to receive 21 letters of intent from the departments and institutes. Full proposals should be submitted by March 21.

#### **(d) Town Hall**

The Dean held a student town hall on February 22 in partnership with the Engineering Society. The timing was shifted from the usual noon-hour to the early evening in order to accommodate student availability. Turnout was roughly the same, and we will work with the Engineering Society to understand the times that work best for students to attend.

Students were very engaged and discussed topics such as student mental health, the role of technology in supporting the student experience in the CEIE, the PEY program, and expansion of the eSIP program.

### **(e) Convocation**

There will be three spring convocation ceremonies on June 8 and 9 this year to accommodate the growing number of Engineering graduates. Convocation for students in ChemE, EngSci, UTIAS and IBBME will be on June 8 from 10:00 to 12:00 with honorary graduand Mr. M.G. Venkatas Mannar. Students in MIE, CivE and Mineral will convocate on June 8 from 2:30 to 4:30 with honorary graduand Professor Cynthia Barnhart, Chancellor at MIT and a recent distinguished speaker in MIE. Convocation for students in ECE and MSE will be on June 9 from 10:00 to 12:00. There will be no honorary graduand for this ceremony.

As was the case last year, each department, division and institute will host its own convocation reception for students and guests. All are encouraged to attend.

### **(f) Celebrating Engineering Excellence**

Our Celebrating Engineering Excellence awards reception for faculty and staff is scheduled for April 14 from 4:00 to 6:00 in GB202. This is a wonderful opportunity to recognize and celebrate our colleagues for their contributions to the Faculty and for raising our visibility and profile.

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

### **(a) Engineering Graduate Education Committee Report**

Markus Bussmann, Chair of the Engineering Graduate Education Committee, presented Report 3490, new graduate courses in APS, AER, MIE and MSE, and the de-activation of a course in MIE.

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

### **(b) Scholarships and Awards Committee Plans for 2015-2016**

Brenda McCabe, Chair of the Scholarships and Awards Committee, presented Report 3493, the committee's goals for the academic year. These are to continue to make the e-Portfolio system more user-friendly to facilitate the awards process which allocates over \$570,000 to undergraduate engineering students each year, review committee procedures to ensure they meet FIPPA requirements, investigate the possibility of merging co-curricular records with e-Portfolio, develop additional reporting functionality within e-Portfolio, and investigate the possibility of having a searchable system for managing the numerous scholarships and awards.

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

## **12. Discussion Items**

### **(a) University Research Update**

Professor Vivek Goel, Vice-President, Research and Innovation, congratulated Dean Amon and the Faculty on the Government of Ontario's recently-announced donation of \$15M toward the CEIE. Of note, this item was not in the University section of the 2016 provincial budget, but rather in the section that deals with the economy. The donation is designed to strengthen the province's innovative capacity and speaks to the University's role as a key driver of economic growth and jobs in the new economy.

Professor Goel updated Council on research and innovation at the University, discussing the services and supports provided through his portfolio to the U of T community and its priorities; global research, innovation and employability rankings; international and Canadian faculty awards and honours; research funding and market share of Tri-Agency and Canadian Foundation for Innovation funding; papers published by U of T faculty outside of Canada; international research collaboration; and the fostering of entrepreneurship at U of T, in particular at MaRS and at the Banting and Best Centre for Innovation and Entrepreneurship (BBCIE).

In response to a member's question, Vice-President Goel described the primary challenge we face over the next few years as funding constraints by both the federal and provincial governments, who are running deficits. Although the economy will affect the government's ability to invest in universities over the short term, we can work with them over the next few years to remove constraints on new funding. More immediately, we can work to marry our research with the government's innovation goals, and look to increase private funding.

Council also discussed the role and funding of research in undergraduate education, the need for a more robust system to track all content points in industrial partnerships, and institutional barriers to getting more research funding, in particular issues concerning intellectual property and funding from industry.

### **(b) Update on Task Force for Mental Health Strategies**

Tom Coyle, Vice-Dean, Undergraduate, updated Council on the work of the Task Force for Mental Health Strategies, which was struck in July 2015 to create an inventory of the existing activities and resources that foster good mental health for our students and assess their effectiveness, propose a FASE mental health framework consistent with best practices within the University and other comparable higher education institutions, and recommend appropriate working groups to implement the proposed strategy and plan.

Professor Coyle reviewed the Faculty's current resources and activities and discussed the task force's recommendations pertaining to awareness, education, training and anti-stigma strategies, inclusive curriculum and teaching approaches, mental health services and programs, and policies and procedures.

Council discussed the merits of publishing honour rolls and the negative effect this may have on students who are less academically strong, and communicating mental health-related information in EngSoc and Faculty websites, and in course syllabi.

### **(c) Update on Graduate Attributes and Undergraduate Curriculum**

Graeme Norval, Chair of the Undergraduate Curriculum Committee, provided Council with a brief update on the Canadian Engineering Accreditation Board's (CEAB) graduate attributes requirements. The CEAB has defined curriculum maps for engineering schools across the country, and our Faculty has completed maps for three of its programs, with a fourth nearing completion.

The Faculty must re-think how it manages the accreditation process and the roles of its Graduate Attributes Committee and Undergraduate Curriculum Committee. The Undergraduate Curriculum Committee will bring forward its revised terms of reference for Faculty's consideration, then approval, at future governance cycles.

### **13. Other Business**

There was no other business.

### **14. Date of Next Meeting**

The next and final Faculty Council meeting of the academic year is on April 12, 2016.

### **15. Adjournment**

The meeting was adjourned at 1:50 p.m.

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5/31/2016 2:56 PM