



**Minutes of the Faculty Council Meeting of
Monday, April 7, 2014 at 12:10 p.m.
Michael E. Charles Council Chamber (GB 202)**

Present:

Tony Sinclair (Speaker)
Tarek S. Abdelrahman
Grant Allen
Cristina Amon (Dean)
Philip Anderson
J. Christopher Beck
Sharon Brown
Mirielle Broucke
Markus Bussmann
Anthony Chan Carusone
Tom Coyle
Matthew Daly
Jim Davis
Khuong Doan
Natalie Enright Jerger
Uve Erb
Carolyn Farrell
Roman Genov
Ryan Gomes
Michael Gruninger
Krisztina Harmath
M. Reza Irvani
Gina John
Mark Kortschot
Frank R. Kschischang
Hans Kunov
Ofer Levi
David Lie
Antonio Liscidini
Susan McCahan
Barbara McCann
Hani Naguib
Farid Najm
Graeme Norval
Teresa Nyguyen
Doug Perovic
Jane Phillips
Aleksandar Prodic

Doug Reeve
Jonathan Rose
Amer S. Shalaby
Shamim A. Sheikh
Ali Sheikholeslami
Jeffrey Siegel
Brent Sleep
Kenneth Tallman
Olev Trass
Shahrohk Valaee
Peter Weiss
Christopher Yip
Wei Yu
Chris Zhu
Jean Zu

Regrets:

Rosdan Craig
Bryan Karney
Elias Kyriacou
Brenda McCabe
Ted Sargent

Guests:

Vanessa Andres
Althea Blackburn-Evans
Christina da Rocha-Feeley
Lobna El Gammal
William Graydon
Jan Haugan
Chris Jones
Jon Obnamia
Alyssa Madrasto
Tom Nault
Stephanie Rose
Geoff Wichert
Tony Zhang
Caroline Ziegler

1. Welcome / Adoption of Agenda

The Speaker, Tony Sinclair, thanked members joining the final Faculty Council meeting of the 2013-2014 academic year and welcomed all present, in particular student members. He noted that the agenda and documents were distributed on March 24, with the exception of Report 3426, which was distributed on April 2, and Report 3427, which was distributed on April 7.

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

THAT the agenda be adopted.

2. Adoption of Minutes of the Previous Meeting

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

THAT the minutes of the meeting of February 25, 2014 be approved as circulated.

3. Report of the Dean

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

(a) Centre for Engineering Innovation & Entrepreneurship

Since the last update to Council, the City of Toronto has confirmed that we will need to go through rezoning rather than the committee of adjustments. This is unfortunately a slightly longer process; however, we do not anticipate that they will ask for further changes.

The construction will occur in two stages: the Transitional Year Program is scheduled to move to Woodsworth College in May, then demolition of the Transitional Year Program building and the back of the Physical Geography building will begin in June. We are awaiting final costing from the architects, and hope to complete excavation in the foundational work up to street level within the next 9-10 months, which will align with city approval, and then complete the final stages of construction.

We continue to make great progress on the fundraising front. The Dean will be traveling to Asia-Pacific in May to meet with alumni fundraising groups in Taiwan, Singapore, Malaysia and Hong Kong, who are raising funds for their respective Nationality Rooms.

(b) Science without Borders in Brazil

While in Brazil last month, Dean Amon and Faculty Registrar Barbara McCann met with alumni and prospective students to promote the Science without Borders PhD program, which was recently announced by the University.

Beginning in 2014-2015, Brazilian graduate students will have two scholarship options. The first is a four-year PhD at UofT with Science without Borders providing up to four years of full funding for tuition, travel and living expenses for Brazilian students, and up to two months of language training. A fifth year may be supported by UofT if necessary.

The second option allows Brazilian students to spend 12 months as visiting PhD students at UofT, with travel and living expenses covered by Science without Borders. The PhD students will be supervised by their Brazilian thesis supervisor and a Canadian research advisor.

The Science without Borders undergraduate program in our Faculty has been an overwhelming success. With over 300 students enrolled this year, we are the top choice in the world, and it is anticipated that our Faculty will have a strong cohort of PhD students in the coming years.

The Dean encouraged faculty members to help support this program by admitting and advising visiting qualified PhD students.

(c) Convocation

Our convocation is scheduled for June 18. The morning speaker is Jonathan Rose, who recently won the 2014 UofT Faculty Award, and the programs graduating in the morning are Biomedical Engineering, Chemical Engineering and Applied Chemistry, Computer Engineering, Electrical Engineering, and Engineering Science.

The afternoon speaker is Indira Samarasekera, President of the University of Alberta, and a materials science/metallurgy engineer by training. Programs graduating in the afternoon include Aerospace Studies, Civil Engineering, Industrial Engineering, Materials Engineering, Mechanical Engineering, and Mineral Engineering.

The Dean encouraged all to attend.

(d) Celebrating Engineering Excellence

All were invited to attend the Faculty's 7th annual Celebrating Engineering Excellence Reception, which will be held on April 23 from 4:00-6:00 p.m. in GB202.

(e) Engineering Society Executive, 2014-2015

Dean Amon thanked Mauricio Curbelo and his executive team for their leadership of the Engineering Society and representation of student interests at Faculty Council this past year. She congratulated and introduced the new EngSoc President Teresa Nguyen and new VP, Academic, Ryan Gomes and looks forward to working with them and the other members of their leadership team: Mehran Hydary, VP Finance; Karan Shukla, VP Communications; and Cory Sulpizi, VP Student Life.

(f) Capstone Design Projects

The Dean updated Council on some of the collaborative, hands-on learning opportunities developed for our students.

One such opportunity is our Faculty's first Multidisciplinary Capstone Design Projects, in which teams of students from different engineering disciplines tackled open-ended design challenges proposed by industry partners.

She also spoke about the Centre for Global Engineering's Interdisciplinary Approach to Global Challenges course, where teams comprised of graduate students from engineering, social sciences, business and public health developed prototypes and solutions to combat childhood hunger and malnutrition in Bangladesh.

Dean Amon stressed the value of providing our students with opportunities for hands-on design experience, which is particularly important given the high digital skill levels of our incoming students, especially in software and social media.

(g) Enhanced Learning Experience

Our faculty members have been experimenting with new technologies to enhance the student learning experience.

This year, we piloted the second year of an inverted classroom approach, used lecture capture in all first-year courses but one, and developed two online courses in calculus with engineering applications. We are in the final stages of designing a third online course, which will be shared with other universities. We created our first massive open online course (MOOC), "Our Energetic Earth", and a second MOOC on sustainable energy will launch in fall 2014.

(h) Barbara McCann's Retirement

This will be Barbara McCann's last Faculty Council with us as our Registrar, as she will be retiring on June 30, 2014 after 40 years with the University and our Faculty. Barbara has been in the role of Faculty Registrar since 1985 and acted as Council Secretary for over 20 years. She has played a pivotal role in enhancing and improving our services to meet the changing needs of engineering students over the years.

The Dean thanked Barbara for her tremendous dedication to the Faculty, and while wishing her the best for her retirement, she encouraged Barbara to stay engaged with the Faculty.

A reception will be held on May 30th from 3:00-5:00 p.m. in GB2o2 to honour and thank Barbara for her outstanding leadership and contributions to our Faculty. Invitations will be sent out shortly.

We are also creating a scholarship in Barbara's name so that we can continue her good work in serving the primary mission of our Faculty: the education of our students.

4. Establishment of TIAM as an EDU:C

Jean Zu, Chair of the Department of Mechanical and Industrial Engineering, introduced Report 3421, an initiative to establish the Toronto Institute of Advanced Manufacturing as an Extra-Departmental Unit, Type C.

Hani Naguib of Mechanical and Industrial Engineering presented the report, discussing the proposed Institute's mandate and mission, its scope, research and teaching roles, and its objectives and measures of success.

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

THAT the Faculty establish the Toronto Institute of Advanced Manufacturing (TIAM) as an Extra-Departmental Unit:C (EDU:C), effective immediately, with the mandate to provide innovation and leadership in advanced manufacturing through research and development, training and education in Ontario, Canada, and worldwide.

In response to a member's question, Professor Naguib confirmed the EDU's name, saying that the EDU committee was split on re-naming it as "University of Toronto Advanced Manufacturing Institute" to better reflect the University (as had been discussed at the Executive Committee meeting). He said that the name could be changed in the future, if warranted.

The special motion, requiring a minimum 2/3 majority of members present and voting, was carried.

5. Admissions Committee: Revised Manual

Jason Anderson, Chair of the Admissions Committee, presented Report 3429, a revision of the Committee's Manual to change its term of office, expand its membership, simplify its language, and reflect its current processes regarding admissions, scholarship and advanced standing decisions.

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

THAT the revised Manual for the Admissions Committee be approved.

A member asked if any of the proposed revisions will affect special students. The Registrar responded that special students are typically non-degree students from other universities, for example, summer students or international exchange students, and so are unaffected by the revisions.

The motion was carried.

6. Proposed Summer Research Abroad Course

Graeme Norval, Chair of the Undergraduate Curriculum Committee, presented Report 3428 Revised, which proposes an academic credit for students participating in the Summer Research Abroad program. He mentioned the low number of engineering students currently taking advantage of the program, and explained how the proposal, which will align with best practices at the University, will provide an incentive for increased participation.

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

THAT the proposed APS299Y0Y: Summer Research Abroad course be approved, effective May 1, 2014.

Members agreed with the value of students working abroad, but some were concerned about oversight and ensuring the quality of student work.

One member opposed in principle the offering of a credit course to students abroad because we do not give this credit to our own students, and because the research conducted would not be equivalent to a course.

A member expressed concern about quality control, as only two people would evaluate the students' work (the overseas advisor and the home program or Faculty representative). Another member responded that this is the norm for any course our students take abroad, and said that ensuring quality would be no more work than what is required for thesis supervision. Dr. Norval added that if there is a discrepancy in evaluating work, we can reverse the student's fees and not assign the credit.

Others stated that it is incumbent upon us to uphold our Faculty's standards. Dr. Norval responded that the list of approved exchange partners is not new, and that there have not been any complaints about them.

In response to a question about what the CEAB accreditation units would be for such a credit, Dr. Norval explained that the "K-factor" would be applied, which is the same for theses and capstone design courses.

A member questioned why the proposed course number is 299 when this is a capstone course. Dr. Norval responded that this is not a capstone course, and that it is aimed at students in their second or third year (which is when 60% of our students do PEY).

It was asked why we need to create a for-credit course, since learning abroad is worthwhile in and of itself. A member responded that by assigning a credit, scholarship opportunities are opened up to assist students with accommodations and travel expenses. One member who had studied abroad considered quality a "given" and said that he was more concerned with finances, so the scholarship opportunities are very important.

A member supported the idea of studying abroad, but not the proposal, saying that it is too much, too soon. He instead suggested that our Faculty target and work with institutions to get more support. Other members felt that there are adequate controls, and that the proposal allows us to be selective in which students can participate in the program.

A member wondered if the solution being proposed answers the fundamental question of why our students do not choose to study abroad and asked if we had sought feedback from them. Another member said that this initiative would benefit only a handful of students because of resource issues, suggesting that we instead develop opportunities for life-long learning here.

Dr. Norval reminded members that in Meric Gertler's February address to our Council, the President emphasized the University's responsibility to help students acquire life-long learning skills and experience, not just job skills, and that this would be enhanced by going abroad. He added that during the last CEAB accreditation review, the Chair of the Accreditation Team questioned why our Faculty does not do more to enable students to acquire these life-long learning skills.

The motion was carried.

7. Report of the Engineering Alumni Honours & Awards Committee

Doug Reeve, Chair of the Committee, presented Report 3427, which was distributed at the door. The report lists candidates for induction into the 2014 Engineering Alumni Hall of Distinction, and recipients of the Engineering Alumni Medal, 2T5 Mid-Career Award, 7T6 Early Career Award, and Malcolm McGrath Award.

Professor Reeve noted that the annual Alumni Awards Dinner will be held on November 5 in the Great Hall, Hart House.

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

8. Engineering Science Options: Nanoengineering and Robotics

Mark Kortschot, Chair of the Division of Engineering Science, presented on the potential closure of the Nanoengineering Option, and the creation of a Robotics Option in Engineering Science.

(a) Nanoengineering Option

The Nanoengineering Option was launched in Engineering Science in 2002. Since then, nanoengineering has become pervasive in all engineering disciplines, and enrolment in the option has declined from six students per year for the past several years, to two students next year. Although revitalizing or re-vamping the option has been considered, it is clear that the option is not sustainable in the long run. It is possible that a minor in nanoengineering could be developed at a later date. There will be no major resource implications when closing the option.

In response to a question from a member, Professor Kortschot confirmed that students currently enrolled in the option would be grandfathered and so will be able to complete the program.

A member thanked Professor Kortschot and the Division for offering the Nanoengineering Option.

(b) Robotics Option

A committee consisting of representatives from UTIAS, the Department of Mechanical & Industrial Engineering, the Edward S. Rogers Sr. Department of Electrical & Computer Engineering, and the Department of Computer Science was formed to advise on the creation of a Robotics Option in the Division of Engineering Science, focusing on versatile but autonomous and advanced robotics. The proposal has received wide support from the Institute of Robotics & Mechatronics, FASE departments, and from industry. At this time, it is unknown who the option chair might be.

A member asked how the Robotics Option will differ from the Manufacturing Option which was closed in 2007. Professor Kortschot responded that the proposed option would not concentrate on traditional manufacturing; instead, it will focus on high-level robotics. He further stated that there is a lot of faculty expertise to support the option, and that it is in high demand from students.

Another member asked about the potential demand in industry for graduates in this option. Professor Kortschot responded that while it is difficult to predict what the demand might be in six years, it is hard to imagine that it would not be of interest to employers.

A member commented that it will be important to distinguish this option from other options in Engineering Science.

Professor Kortschot will bring forward a motion to close the Nanoengineering Option and create a Robotics Option at the Fall Council meeting.

9. Reports and Recommendations of Standing Committees

(a) Engineering Graduate Education Information Report

Markus Bussmann, Chair of the Engineering Graduate Education Committee, presented Report 3422, an update which includes three new courses and a correction to the SGS calendar description regarding the previously-approved emphasis in Advanced Water Technologies & Process Design.

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

(b) Examinations Committee: Deferred Examinations Fee

James Davis of the Examinations Committee presented Report 3430, a recommendation to charge FASE students a non-refundable sitting fee of \$70 for each second and third deferred exam. This fee was waived when the Guidelines for Granting a Deferred Examination were approved by Council in April 2011, and the proposal would now bring the Faculty in line with the rest of the University, offset costs to the Faculty for administering deferred exams (at approximately \$1500 per academic session for staff and TA time), and discourage students from missing their regularly scheduled and deferred exams. Professor Davis stressed that assessed marks are the norm; students write deferred exams only under special circumstances.

A member asked if the Committee had considered having students write the missed exam the next time it is regularly scheduled. Professor Davis responded that the concern would be with the student's status. When a student misses an exam, it would not be known if he or she would be going on to the next term, and the Registrar's Office cannot wait another 12 months to sort out the student's status.

The item was received for information.

10. Appointments to Faculty Standing Committees and the Academic Appeals Board, 2014-2015

The Speaker presented Report 3424, the appointments to the standing committees and Academic Appeals Board for the next academic year. A final version of this report, including student members, will be distributed to Council in the fall.

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

11. Faculty Council Meeting Dates, 2014-2015

The Speaker presented Report 3426, the 2014-2015 Faculty Council meeting dates, which are October 8, 2014; November 25, 2014; February 10, 2015; and April 17, 2015.

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

12. Other Business

There was no other business.

13. Date of Next Meeting

The next Faculty Council meeting is on October 8, 2014.

14. Adjournment

The meeting was adjourned at 1:35 p.m.

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