## Meeting of Faculty

Monday, 16 October 2023
Leacock Council Room - L232

## ATTENDANCE:

As recorded in the Faculty Appendix Book

## DOCUMENTS:

S-23-2(Revised), S-23-3 to S-23-6, S-23-8, S-23-10
Dean Lennox called the meeting to order at 3 p.m., and welcomed members to the second Faculty of Science meeting of the 2023-2024 academic year.

## 1) ADOPTION OF AGENDA

Prof. Roulet moved, seconded by Prof. Fabry, that the Agenda be adopted.

## The motion carried

## 2) MEMORIAL TRIBUTE FOR PROFESSOR EMERITUS BYUNG CHAN EU

Prof. Dmytro F. Perepichka, Chair of the Department of Chemistry, read the following:
With heavy hearts we announce the passing of Professor Byung Chan ("BC") Eu on August 25th, 2023, at the age of 88 while in hospital. BC was born in 1935 in Seoul, Korea and earned a BSc in Chemistry at Seoul National University in 1959. He was admitted to the graduate school of Seoul National University in 1960, but soon was drafted into the Korean army which he served until 1962. On his discharge from the army, he left Korea to pursue his graduate studies at Brown University, earning a PhD in 1965, and completing a research fellowship at Harvard University in 1967. In 1967, he joined the Chemistry Department faculty at McGill University, where he spent over fifty years of a productive and innovative academic career and was named Professor Emeritus in 2001.

A gifted scholar and profound intellectual, BC pursued his academic studies as he did everything - with great drive, discipline, dedication, commitment, and quiet passion. He became known internationally for his major contributions to molecular scattering theory, non-equilibrium statistical mechanics, fluid dynamics and irreversible thermodynamics. His fundamental work had direct applications to numerous fields including semiconductors and quantum devices, aerospace, materials processing, plasma and radiation research. BC has published more than 250 research articles, 55 book chapters, and 7 books many of which remain the key references for theorists to this day. His work was recognized by an Alfred Sloan Fellowship and he was inducted into the Korea Academy of Science and Technology.

On July 7th, 2022, his 87th birthday, BC presented a plenary lecture at the 32nd International Symposium on Rarefied Gas Dynamics in Seoul, Korea. The journey that had started exactly 60 years earlier had come full circle with the presentation of his life's scientific contributions in his beloved motherland.

BC will be deeply missed by all who knew him. He leaves behind his ever devoted and loving wife, Hui Young, his two children David and Cathy and his five grandchildren, Matthew, Megan, Justin, Jacqueline, and Jason, as well as the many others whose lives he touched.

## The resolution was adopted unanimously.

On behalf of the Faculty of Science, Dean Lennox expressed condolences to the family of Prof. Eu. Dean Lennox acknowledged that Prof. Eu was a fine scholar and former colleague of the Department of Chemistry. He was an exceptional teacher, specializing in challenging subjects within Chemistry, such as statistical mechanics and quantum mechanics. His lectures were always engaging. Prof. Eu was a man of few words, carefully choosing each one, and it was only upon his passing that it was apparent he was an accomplished poet. In fact, he had published five volumes of poetry in both English and Korean. He remained a fascinating and impactful individual throughout his lifetime.

## 3) CANDIDATES FOR DEGREES

a) Bachelor of Arts and Science
S-23-4
b) Bachelor of Science
S-23-5

Associate Dean Mittermaier reported that there were 14 students graduating with the B.A. \& Sc. degree. In comparison to October 2022, when there were 15 students, and October 2021, which had 10 candidates for the Bachelor of Arts and Science, this year's 14 students align with the historical average of 12 students for October graduations over the past decade.

As for the B.Sc. degree, there were 84 candidates, and this contrasts with 81 students in October 2022, and 58 students in October 2021. It is worth noting that this is the highest number of October graduates since 2013 when there were 96 students.

The honorifics cut-offs (below) were calculated in May 2023 and based on the graduating classes of February and May 2023.
B.Sc.:

Dean's Honours List (top 10\%) >= 3.97 CGPA
Distinction (next 15\%) >= 3.92 CGPA

## B.A.\&Sc.:

Dean's Honours List (top 10\%) >= 3.92 CGPA
Distinction (next 15\%) >= 3.85 CGPA
Associate Dean Mittermaier moved, seconded by Prof. Roulet, that the above degree lists be recommended to the Senate Steering Committee for the Bachelor of Arts and Science degree, and for the Bachelor of Science degree.

## The motion carried.

c) Diploma in Environment
d) Diploma in Meteorology

There were no students graduating with the Diplomas in Environment and Meteorology.
Associate Dean Mittermaier further moved, seconded by Prof. Fabry, that the Dean be given discretionary power to make such changes as would be necessary to prevent injustice.

The motion carried.

Associate Dean Mittermaier thanked both departmental and SOUSA advisors for their significant efforts in securing the timely approval of these degrees.

Prof. Perepichka moved, seconded by Prof. Blanchette, that the Minutes be approved.
The motion carried.

## 5) BUSINESS ARISING FROM THE MINUTES

(i) Item 3, Page 2: Seating of Student Representatives (S-23-2 Revised)

Dean Lennox extended a warm welcome to the additional student representatives attending the current Faculty meeting. He emphasized the importance of incorporating students' perspectives. Dean Lennox also asked the new members present to introduce themselves, highlighting the Faculty's anticipation of collaborating with the student representatives.

| Alexandre Morin | Neuroscience | U3 |
| :--- | :--- | :--- |
| Viktor Allais | Statistics | U1 |
| Maeve Holm | Chemistry | U2 |
| Kathleen Brown | Anatomy and Cell Biology | U2 |
| Sophie Stevens-Green | Chemistry | U2 |

(ii) Item 12, Page 8: Report of Associate Dean (Student Affairs) Anthony Mittermaier, Academic Accommodations and UDL Workshop Inquiry

Associate Dean (Student Affairs) Mittermaier addressed a member's question regarding academic accommodations and the potential for a Universal Design for Learning (UDL) and accommodations workshop. He reported receiving valuable information from the McGill Office of Student Accessibility and Achievement (SAA) concerning the distinction between academic accommodations and academic considerations.

Upcoming Q\&A sessions are scheduled for:

- 4 December 2023, from 11 AM to 12 PM
- 7 December 2023, from 1 PM to 2 PM

Associate Dean Mittermaier mentioned the availability of a PowerPoint deck used in these presentations, which he is considering sharing with all instructors, pending confirmation. Additionally, a recording from the session held on 13 October 2023, is available, and he will verify its suitability for distribution to instructors.

## 6) REPORTS OF COMMITTEES

- Academic Committee

The following proposals were approved at the Academic Committee meeting held on Tuesday, 19 September 2023.

Associate Dean (Academic) Axel Hundemer described the following new and revised courses.

1. Faculty of Science

New Course:
BIOT 302
Introduction to Synthetic Biology
3 credits
AC-23-13

The above proposal seeks to fill a gap in the current curriculum by introducing BIOT 302, a dedicated undergraduate course in synthetic biology. This course is designed to equip students with a comprehensive understanding of the principles and methodologies of synthetic biology and how they can be applied in both scientific and technological contexts.

Associate Dean Hundemer moved, seconded by Prof. Blanchette, that the course be adopted.

The motion carried.
2. Psychology

New Course:
PSYC 309
Positive Psychology: Science of Well Being
AC-23-8

The course, PSYC 309, was originally introduced around 15 years ago. The objective is to enhance accessibility by offering the course to students earlier in their undergraduate studies at McGill and to open it to non-psychology students. The idea was initiated by students from the Faculty of Science Student Association to help students better manage the stresses of life at McGill.

Associate Dean Hundemer moved, seconded by Prof. Ditto, that the course be adopted.

## The motion carried.

PSYC 380D1/D2 Honours Research Project
AC-23-9
Change in restrictions 9 credits
PSYC 450D1/D2 Research Project and Seminar
AC-23-10
Changes: restrictions, supplementary Calendar information
9 credits

The revisions for the above two courses are primarily housekeeping matters and providing essential details about the application procedures.

Associate Dean Hundemer moved, seconded by Prof. Ditto, that the changes be approved.

## The motion carried.

3. Mathematics \& Statistics

New Course:
MATH 245
Honours Algebra 1
AC-23-3
3 credits
MATH 235
Algebra 1
AC-23-4
Change in Course Description, Restriction
3 credits

The new course, MATH 245, was proposed in response to the rising enrollment in MATH 235. The key distinction between MATH 235 and MATH 245 lies in the depth at which the topic is covered.

Associate Dean Hundemer moved, seconded by Prof. Choksi, to adopt MATH 245 and approve the changes for MATH 235.

## The motion carried.

MATH 357
Honours Statistics
AC-23-5
Change in Course Description
3 credits
The changes in the course description are to bring the content in line with what is being taught in MATH 357, in contrast to what is currently specified in the eCalendar.

Prof. Kelome moved, seconded by Prof. Choksi, that the changes be approved.

## The motion carried.

MATH 556
Mathematical Statistics 1
AC-23-6
Change in Prerequisites
4 credits
MATH 557
Mathematical Statistics 2
AC-23-7
Changes: Course Description, Prerequisites
4 credits
The proposed changes proposes that the prerequisite for MATH 556 should be a probability course, given that MATH 556 has no Statistics content. This change is important, especially for Honours and Applied Mathematics students who need to take MATH 556 but have no background in statistics.

The proposed changes for MATH 557 have two primary objectives: (i) to explicitly specify that an undergraduate statistical inference course is a prerequisite for MATH 557, and (ii) to update the course description of MATH 557 to reflect the historical and current teaching practices accurately.

Associate Dean Hundemer moved, seconded by Prof. Choksi, that the changes be approved.

The motion carried.
4. Physics

PHYS 657
Classical Condensed Matter
AC-23-1
Change in Course Description
3 credits
The changes in the course description aim to eliminate older content and introduce additional project-based work.

Associate Dean Hundemer moved, seconded by Prof. Jeon, that the changes be approved.

The motion carried.
5. Psychiatry

The proposed changes were to correct the prerequisite courses for PSYT 301, and to change the offering term from Winter to Fall.

Associate Dean Hundemer moved, seconded by Prof. Fabry, that the changes be approved.

## The motion carried.

6. Renaming of Freshman Year to Foundation Year (For Information)

Associate Dean Hundemer explained that the UO program, previously known as the "Freshman program," underwent a name change discussion within the Faculty of Arts to promote gender-neutrality. Following discussions between the Faculty of Arts and the Faculty of Science, a consensus was reached. While Associate Dean Hundemer anticipated presenting the change to the Academic Committee and the Faculty Council for voting, the McGill Admissions office decided to implement the change directly, bypassing the vote. He noted that the implementation method was unfortunate but expressed no opposition to the proposed name change.
7. Bieler School of Environment

For information:

- B.A., Faculty Program in Environment, Environment and Development Conc. AC-23-11

The only change, as per SCTP's request, pertained to the program description for the B.A. in the Faculty Program in Environment, specifically for the Environment and Development Concentration.

## 7) DEAN'S BUSINESS

a) Associate Dean (Student Affairs) Anthony Mittermaier (i) B.Sc. Global Designation S-23-8

Associate Dean Mittermaier informed members that the DMURL provides recognition for students who have completed at least 9 credits of graded research-based courses in at least two different units, and who have a minimum GPA of 3.00 on these courses. There were six B.Sc. students and one B.A. \& Sc. student listed in Document S-23-8 who would be graduating with this designation.
(ii) Dean's Multidisciplinary Undergraduate Research

S-23-10 List (DMURL)

Associate Dean Mittermaier noted that the B.Sc. Global was a designation being given at graduation. Students must have at least three credits of a second language course, at least three credits of an independent research project course, plus a third component, chosen from various preselected options. There was one candidate who would graduate with the B.Sc. Global designation in Document S-23-10.
b) Announcements
(i) Tuition Increases and Concerns

Dean Lennox commented on the Québec government's intentions to increase tuition for out-of-province students. He pointed out that the situation differed somewhat for each of
the three English universities involved (because of their differing enrollment patterns) and mentioned the potential impact of tuition fees on recruitment. Dean Lennox emphasized the need to await further information and gain a clearer understanding of the Government's motives before formulating a response as an institution. He encouraged members to follow media coverage to stay informed about the situation and recommended that student leaders ensure they receive regular updates. Dean Lennox addressed members' questions.
(i) Service Milestones - 25 plus Years

Dean Lennox extended warm congratulations and sincere appreciation to the following dedicated individuals for their remarkable 25-plus years of unwavering service and commitment to the Faculty of Science.

| Last Name | First Name | Years of Service | Position | Department/AEC |
| :---: | :---: | :---: | :---: | :---: |
| Ariya | Parisa A | 25 | Professor | Atmospheric and Oceanic Sciences |
| Correa | Jose Andres | 25 | Senior Faculty Lecturer | Mathematics and Statistics |
| Crepeau | Claude | 25 | Associate Professor | Computer Science |
| Goren | Eyal Z | 25 | Professor | Mathematics and Statistics |
| Hundemer | Axel W | 25 | Senior Faculty Lecturer | Mathematics and Statistics |
| Marleau | Jennifer | 25 | Research Account Administrator | Science |
| Roy | Richard D W | 25 | Professor | Biology |
| Shi | Ruilan | 25 | Chief Local Area Network Technician | Geography |
| Siddiqi | Kaleem | 25 | Professor | Computer Science |
| Bousquet | Chantale | 30 | Student Advising Supervisor | Psychology |
| Kakkar | Ashok K | 30 | Professor | Chemistry |
| Straub | David N | 30 | Associate Professor | Atmospheric and Oceanic Sciences |
| Vacirca | Giuseppe | 30 | IT Consultant | Science |
| Hurtubise | Jacques <br> Claude | 35 | Professor | Mathematics and Statistics |


| Koestner | Richard | 35 | Professor | Psychology |
| :--- | :--- | :--- | :--- | :--- |
| Potvin | Catherine | 35 | Professor | Biology |
| Richer | Isabelle | 35 | Chief Research <br> Technician | Earth and Planetary <br> Sciences |
| Workman | Robert | 35 | IT Consultant | Science |
| Ditto | Blaine | 40 | Professor | Psychology |
| Langlois | Marc-Andre | 40 | Property Supervisor | Gault Nature Reserve |
| Schoen | Daniel J | 40 | Professor | Biology |
| Ostry | David J | 45 | Professor | Psychology |
| van de Ven | Theo | 45 | Professor | Chemistry |
| Jensen | Olivia | 50 | Professor | Earth and Planetary |

(ii) Kudos

On behalf of the Faculty of Science, Dean Lennox congratulated Prof. Paul Wiseman and Prof. Natalya Gomez for their outstanding accomplishments and achievements.

- Professor Paul Wiseman, from the Departments of Chemistry and Physics, has been named a 2024 Fellow of the Biophysical Society of Canada.
- Professor Natalya Gomez, from the Department of Earth and Planetary Sciences, was named the recipient of the 2023 James B. Macelwane Medal.

For more in-depth information about the above awards, please visit Kudos

## 8) SCIENCE UNDERGRADUATE SOCIETY (SUS) REPORT

Asma Khamis, President of the Science Undergraduate Society, reported on the activities of the SUS.

President Khamis said that the SUS (Science Undergraduate Society) has been quite active and productive over the past month. Below is a summary of the key activities and initiatives that have been undertaken by each of the vice presidents and committees:

1. Departmental Orientation and Equity Training: The successful completion of these activities is essential for creating a welcoming and inclusive environment within the department.
2. First Year Undergraduate Science Society (FUSS): The initiation of bonding opportunities for first-year students is a great way to help them integrate into the academic community and make their transition smoother.
3. Faculty Presidents' Roundtable: Collaboration with executives from other faculties is a great way to foster interfaculty relations and work on shared goals and initiatives.
4. Vice-President Internal: Planning Science Games and related events like 'Hype Night' is a fun way to engage students and build a sense of community within the department. The planning of the 'Kiki Ball' and the Grad Ball also adds to the social calendar.
5. Vice-President Academic: Organizing the Graduate School Fair is a valuable resource for students considering further education. Working on course note accommodation systems shows a commitment to inclusivity and accessibility.
6. Vice-President External: Collaborating with other societies, like the Engineering Undergraduate Society, for events like student bar nights is an excellent way to expand the reach of the society and provide students with diverse experiences.
7. Vice-President Communications: Creating a 'Master Calendar' is a useful tool for keeping everyone informed about department and club events, fostering engagement, and increasing student awareness.
8. Vice-President Sustainability: The development of inclusivity workflows, such as the Bursary System, and organizing events like the 'Resources Crawl' and 'Strength in Empathy' demonstrates a commitment to student well-being and support.
9. Alumni in Industry Panel: Collaborating with the Faculty to plan and promote this event helps students gain valuable insights into potential career paths.
10. McGill Open House: Tabling at this event allows the SUS to interact with prospective students and showcase the Faculty, potentially attracting new members.

Overall, it seems like the SUS is making great strides in creating a vibrant and inclusive academic community for its members while also engaging with the wider University community and prospective students. These activities and initiatives are crucial for enhancing the overall student experience within the Faculty of Science.

Dean Lennox thanked President Khamis for the report and anticipated ongoing collaboration with the SUS.

## 9) SCIENCE EQUITY AND CLIMATE COMMITTEE

Associate Dean (Graduate Education) Laura Nilson provided an overview of the Science Equity and Climate Committee (SECC). She began by explaining the committee's purpose, emphasizing that it focuses on both equity, diversity and inclusion, as well as more generally on the climate within the Faculty.

Associate Dean Nilson highlighted the importance of considering the climate in which everyone within the Faculty works and learns, as part of a "universal design" approach to ensure all individuals feel supported and included within the Faculty.

Associate Dean Nilson then reported on the first meeting of the semester, held on 26 September 2023. During this meeting, new members were introduced, and an overview of the committee's work and past achievements was presented. The committee follows a structured meeting agenda that includes member reports, during which participants discuss their contributions to the committee's goals. She mentioned that Prof. Adrian Liu from the Department of Physics had raised concerns about the language used on the graduate school application websites. The language had the potential to convey a misleading impression that graduate studies came with significant costs to a student. Prof. Liu worked with the graduate studies admissions team to adjust the language, ensuring that it reflected the financial support that is often provided to graduate students, particularly through stipends.

Another report came from Prof. Rosalie Bélanger-Rioux in the Department of Mathematics and Statistics, who discussed her efforts to provide workshops about representation in science. She aimed to expand these workshops beyond her department, so that students throughout the entire Faculty can participate.

Associate Dean Nilson also noted that the Science Undergraduate Society Sustainability representative sits on the SECC, contributing to the committee's work.

The committee allows for open discussions where members can raise issues they have identified and request the committee's support in addressing these concerns. These discussions often lead to the development of new projects.

Dean Lennox acknowledged the importance of these initiatives.

## 10) PROVOST'S ACTION PLAN TO ADDRESS ANTI-BLACK RACISM

Associate Dean Nilson reminded members about the Provost's Action Plan to Address Anti-black Racism, and that Action Item \#1 under the "Workforce" pillar of the plan is to increase the university's complement of Black tenure-track and tenured professors. She stressed that achieving this goal requires that each search generate a diverse pool of candidates, and it is therefore important to ensure that job ads receive broad distribution. We must avoid biases in the candidate pool by diversifying where ads are placed and expanding professional networks to make sure to reach as broad a pool of outstanding candidates as possible.

Associate Dean Nilson pointed out there is support available to help with this advertising process. This support is provided by the Equity office, particularly by Andrea Clegg, the Senior Employment Equity Advisor, and Tynan Jarrett, the Director of Equity, Diversity, and Inclusion at McGill. They assist departments in posting job ads effectively and offer support to search committees through information and workshops on equity in academic search processes. This support represents one of the steps McGill is taking to fulfill this objective of the Provost's Action Plan, and to promote equity and inclusion more broadly.
11) THE NEW VIC PROJECT UPDATE

Dean Lennox reported that the New Vic Project is currently in the phase of removing materials from existing heritage buildings. The mandate is to recycle and repurpose 70\% of the existing materials, which adds to the cost but ensures alignment with sustainability principles given that the Project is committed to sustainability, and the Provost's Office and the Communications Office are keeping the entire McGill community updated on the progress. There are also ongoing archaeological activities on the site with engagement from relevant communities, and an agreement has been signed with the SQI (the real estate arm of the Government of Québec), the owners of the site. Dean Lennox will provide updates to Faculty members on the status of the site's preparation for eventual construction.

## 12) REPORTS OF ASSOCIATE DEANS

a) Associate Dean (Academic) Axel Hundemer - Admissions and Enrollment

Associate Dean Hundemer presented a report on admissions and enrollment for the B.A.\&Sc. and B.Sc. degrees.
b) Associate Dean (Student Affairs) Anthony Mittermaier

There was no report for the current meeting.
c) Associate Dean (Graduate Education) Laura Nilson

Associate Dean Laura Nilson reported that Graduate and Postdoctoral Studies (GPS) is actively working to promote the recruitment of graduate students and provides various tools to support this endeavor. These efforts can be broken down into three key areas:

1. Communication: The GPS is utilizing a platform called Slate to facilitate communication with potential applicants, students who have already applied, and those who have been accepted. This tool is intended to provide standardized and concise information throughout the application process, with the goal of reducing email traffic and workload at the department level.
2. Recruitment Events: In addition to attending in-person graduate recruitment fairs across Canada, GPS is also supporting departments in organizing online recruitment events. These virtual events have proven popular and can reach applicants worldwide. In addition, GPS provides technical support and coaching on how to run successful online events and maintains contact with attendees for future use as a departmental resource.
3. Recruitment Visits: GPS is offering funding to cover recruitment visits for top candidates. These visits allow prospective students to experience the University, interact with faculty and other students, and explore the campus, ultimately aiming to persuade them to accept offers for graduate studies at McGill.

Associate Dean Nilson said that this information has been shared with graduate program coordinators and directors, and for more details, individuals are encouraged to reach out to Associate Dean (Graduate Education) Nilson. These efforts collectively aim to enhance graduate student recruitment and streamline the process for both applicants and departments.
d) Associate Dean (Research) John Stix

There was no report for the current meeting.
e) Vice-Dean David Stephens

Vice-Dean Stephens reported that there are currently three cyclical reviews, with the possibility of at least two more in different departments. These reviews are seen as valuable exercises for the departments and contribute to their long-term improvement.

In terms of programs, Vice-Dean Stephens said that there has been substantial work in developing programming courses and well-structured programs in the data science field, with the intention of bringing these to the Academic committee for approval within the current academic year.

## 13) Report on Actions of Senate

- Senate Meeting of 20 September 2023: Senator Alanna Watt

Principal Saini chaired the Senate meeting, which began with memorial tributes including two by Dean Lennox for Professor Emerita Marta C. Bunge and for Professor Wilbur Jónsson both from Mathematics and Statistics.

Chair's remarks (relevant to the Faculty of Science):

Principal Saini discussed the University's response to the report on asbestos at the Mac campus, which has relevance for many in our community, including faculty from Biology and Psychology, and noted the two town halls for McGill community members about asbestos that took place on September 22.

Principal Saini talked about a new long-term strategic plan for the University: McGill 2050, for which he will start consulting this fall.

He also talked about his more immediate strategic plans, and this included trying to accelerate major infrastructure projects such as the New Vic.

There were several reports that were approved, including of the Senate Steering, the Senate Nominating, and the EDI committee.

Then there was a report from Associate Provost Celeste Pedri-Spade, who gave an update on the Indigenous Advisory council, which is part of McGill's approach to fulfil its responsibilities from the Truth \& Reconciliation calls to action. There was some discussion centred on this.

Then we had a report to Senate from the Board of Governors. This had one specific item to be discussed at Senate: Discussion of change of title from Principal to President.

At International level, At the international level, "President" is more universally understood than the term "Principal," making it easier for administrators when traveling internationally. Principal has Scottish roots and is rare within Canada. This would reflect on vice-Principals, Assoc, and Assistants too - everything would be altered.
The French translation of President is Recteur, which would align more with the other Universities in Quebec. There was some discussion, although most did not seem to have strong opinions on it.

Finally, there were reports on the Committee on enrolment and student affairs and the Committee on Student Services. The last one was interesting for members of Faculty of Science. They described that there have been changes in their services as they adapt to post-pandemic student needs. More students access student services virtually than in person (60-40 split) which has some advantages and some disadvantages. They are dealing with increased student isolation \& loss of life's skills among students. Question of food insecurity among students was raised \& is something that there is work underway to address.

## 14) MEMBERS' QUESTION PERIOD

There were no members' questions.

## 15) OTHER BUSINESS

There being no other business, Prof. Roulet moved, seconded by Prof. Perepichka, that the meeting be adjourned at 4:54 p.m.

## The motion carried.

