FACULTY OF SCIENCE
MEETING OF FACULTY
7 December 2021 at 3:00 p.m.

ATTENDANCE: As recorded in the Faculty Appendix Book

DOCUMENTS: S-21-12, S-21-13

Dean Lennox called the meeting to order at 3 p.m., and welcomed members to the fourth Faculty of Science meeting of the 2021-2022 academic year.

Dean Lennox reminded all in attendance regarding the voting members at Faculty meetings and referred to Article 1.2 (below) from the Faculty of Science Constitution.

1.2. For the purpose of its meetings, the membership of Faculty shall consist of the following:

   1.2.1. All full professors, associate professors, assistant professors, and full-time faculty lecturers in the departments and schools of the Faculty of Science, including the Redpath Museum, as well as ex officio members as designated in the Statutes of McGill University.

   1.2.2. Members of the academic staff of departments and schools of other faculties that offer degree programs leading to the B.Sc. who have elected to be members of the Faculty of Science.

   1.2.3. The President, Vice-President (Academic) and Science Senator(s) of the Science Undergraduate Society (SUS) who are in satisfactory standing.

   1.2.4. Additional students in satisfactory standing registered for the B.Sc. or B.A. & Sc. degree, elected or appointed by the SUS and as broadly representative of majors offered by the Faculty of Science as possible, to bring total student membership to eighteen.

   1.2.5. Three representatives from among, and elected by, students currently registered in graduate programs in the departments or schools of the Faculty.

   1.2.6. One representative from among, and elected by, post-doctoral scholars in the departments or schools of the Faculty.

1. **Adoption of Agenda**

   Prof. Breau moved, seconded by Prof. Perepichka, that the Agenda be adopted.

   The motion carried.

2. **Minutes of 9 November 2021** S-21-12

   Prof. Forest moved, seconded by Prof. Breau, that the Minutes be approved.

   The motion carried.

3. **Business Arising from the Minutes**

   There was no business arising from the Minutes.

4. **Report of Committee**

   - Academic Committee S-21-13
Associate Dean (Academic) Axel Hundemer described the following proposals which were approved at the Academic Committee meeting held on Tuesday, 23 November 2021.

I. New Courses

1. **Computer Science**
   
   COMP 555  
   Software Privacy  
   4 credits  
   
   The purpose of the new course, COMP 555, was to look at all aspects of software privacy, from implementation to regulation.

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

   **The motion carried.**

2. **Microbiology & Immunology, Pharmacology & Therapeutics**

   New Cross-listed Course:
   
   MIMM 510/PHAR 510  
   New Advances in Antimicrobial Drugs  
   3 credits  
   
   The above cross-listed course will be of interest to students in Microbiology & Immunology, and Pharmacology & Therapeutics. MIMM 510/PHAR 510 provides insights into bacteria pathogenesis and understanding antibiotics.

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

   **The motion carried.**

II. Program Revisions


   - Honours in Cognitive Science  
     
     AC-21-32  
   
   - Interfaculty Program in Cognitive Science  
     
     AC-21-33  
   
   - B.Sc. Minor in Cognitive Science  
     
     AC-21-34  
   
   The proposed revisions to the B.A. & Sc. Honours and Interfaculty Programs in Cognitive Science are similar. A number of Complementary courses relevant to cognitive science have been added to the programs for more flexibility. The changes to the B.Sc. Minor Program in Cognitive Science mirrors the Honours and Interfaculty Programs. Moreover, other revisions in the Minor include: (i) expanding Philosophy courses to increase course selection, (ii) permitting students to take any 300-level and above courses in Linguistics, and (iii) removing Computer Science courses with too many prerequisites.

   Associate Dean Hundemer moved, seconded by Mr. Bhutkar, that the changes to the above programs be approved.

   **The motion carried.**


   - Honours in Sustainability, Science and Society  
     
     AC-21-35  
   
   - Interfaculty Program in Sustainability, Science and Society  
     
     AC-21-36  
   
   The Honours and Interfaculty Programs in Sustainability, Science and Society (SSS) had not been revised since its first creation in 2010. The proposed revisions include adding courses recommended by students and faculty members; removing courses no longer
offered or not regularly taught; moving Required and Complementary courses allowing more flexibility in completing the programs, and adding a recently approved course (GEOG 401) as a Required course, developed explicitly for the SSS programs.

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

The motion carried.

3. Bieler School of Environment
- B.Sc. Major Environment, Ecological Determinants of Health–Cellular
- B.Sc. Major Environment, Ecological Determinants of Health–Population

The changes proposed to the B.Sc. Major in Environment, Ecological Determinants of Health Domain; Cellular and Population Streams, mainly involved housekeeping changes; editorial in nature to help make the programs easier to read and understand; addition and removal of courses, with one Required course (GEOG 403) being changed to Complementary since the course is infrequently taught.

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

The motion carried.

For Information Only:
- B.Science (Agricultural & Environmental Sciences (B.Sc.(Ag.Env.Sc.) Major Environment, Ecological Determinants of Health - Cellular
- B.Science (Agricultural & Environmental Sciences) (B.Sc. (Ag.Env.Sc.) Major Environment, Ecological Determinants of Health - Population

4. Psychology
Program Option Retirement:
- Ph.D. in Psychology – Psychosocial Oncology Option

The Psychosocial Oncology Option was being retired since no students have been interested in the Option for many years.

Associate Dean Hundemer moved, seconded by Prof. Dirks, that the retirement be approved.

The motion carried.

5. Atmospheric & Oceanic Sciences
- Honours in Atmospheric Science
- Major in Atmospheric Science
- Liberal Program: Core Science Component in Atmospheric & Oceanic Sciences
- Joint Major in Atmospheric Science & Physics
- Diploma in Meteorology

The only revision to the above programs was to include ATOC 548 (Mesoscale Meteorology, 3 credits) as a Complementary course in the Liberal Program, Joint Major in Atmospheric Science and Physics, and the Diploma in Meteorology. Also, ATOC 548 was added under the Weather Analysis and Forecasting Stream in the Honours and Major Programs in Atmospheric Science.

Associate Dean Hundemer moved, seconded by Prof. Kirshbaum, that the changes to the above programs be approved.
The motion carried.

III. Courses and Program Revisions

Chemistry

CHEM 213 Introductory Physical Chemistry 1: Thermodynamics  
Changes in prerequisites, restrictions  
3 credits

PHYS 102 (non-calculus-based course) was being added as a prerequisite, although the Department of Chemistry preferred PHYS 142 (calculus-based course) instead. However, since students have been permitted to take PHYS 102 as a prerequisite for CHEM 213, it was reasonable to formalize PHYS 102 as one of the prerequisites in the eCalendar. The restriction, CHEM 223, was removed because it has not been offered since 2017.

CHEM 253 Introductory Physical Chemistry Laboratory  
Changes: title, corequisites, restrictions, supplemental 
Calendar information  
1 credit

The primary reason for the revised restrictions for CHEM 253 was to restrict the course to students in the B.A. & Sc. Major Concentration in Chemistry. Students registered in the Minor, Major, or Honours Programs should take CHEM 273. Also, the corequisites, course title, and eCalendar information were being revised to reflect the current status.

CHEM 302 Introductory Organic Chemistry 3  
Changes in prerequisites  
3 credits

The prerequisite (BIOL 112) was removed because the material in the course was no longer required to succeed in CHEM 302.

CHEM 503 Drug Discovery  
Change in restriction  
3 credits

At the instructor's request, the permission of the instructor will no longer be required to register for CHEM 503.

Associate Dean Hundemer moved, seconded by Prof. Perepichka, that the above change be approved.

The motion carried.

Program Changes:
- Honours in Chemistry  
- Major in Chemistry

Due to low enrollment in the program options below, the Honours and Major Programs in Chemistry have been reorganized by introducing streams, thus simplifying the programs for students and administrators. The program options will be retired (below).

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

The motion carried.

Program Option Retirements:
The above program options are being retired due to low enrolments.

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

The motion carried.

Dean Lennox thanked Associate Dean Hundemer and the Academic Committee for the excellent work.

5. Dean’s Business

– Announcements

(I) Kudos

2021 Fall Convocation
For the first time since Fall 2019, Dean Lennox said that the Fall 2021 Convocation took place in person on 25 November 2021 at Place des Arts. It was a wonderful event for students, family members, professors, and supporters.

As is the tradition at Fall Convocations, the Principal's Prizes for Excellence in Teaching were presented at the ceremony. Again, this year, two members of the Faculty of Science were awarded the Prize, one in the Faculty Lecturer Category and the other in the Assistant Professor Category.

Winners of the 2021 The Principal's Prize for Excellence in Teaching
Professor Signy Sheldon (Psychology) in the Assistant Professor Category, and Professor Giulia Alberini (Computer Science) in the Faculty Lecturer Category.

Dean Lennox thanked Prof. Edith Zorychta (Chair of the Leo Yaffe Teaching Award/Principal's Prizes), for her exceptional work over the years and her service to the Faculty. He also thanked the Committee for their work and commitment to serve on an important Committee.

American Astronomical Society’s Berkeley Prize
Led by Professor Vicky Kaspi (Physics, McGill) and Prof. Paul Scholz (University of Toronto), the CHIME Fast Radio Burst team received the American Astronomical Society’s Berkeley Prize. The CHIME project is co-led by McGill, the University of British Columbia, the University of Toronto, and is hosted at the Dominion Radio Astrophysical Observatory by the National Research Council of Canada, with collaborating institutions across North America.

John C. Polanyi Award
Professor Hanadi Sleiman (Chemistry) was the winner of the $250K 2021 Natural Sciences and Engineering Research Council of Canada’s John C. Polanyi Award. Professor Sleiman was recognized for her ground-breaking advancements in the field of DNA nanotechnology and precision medicine to combat major diseases.

American Mathematical Society
Professor Daniel Wise and Professor Piotr Przytyki have been awarded the 2022 American Mathematical Society E.H. Moore Research Article Prize for their JAMS paper “Mixed 3-manifolds are virtually special”.

**Elected to Canadian Academy of Health Sciences**
Professor Alain Dagher (Associate Member, Psychology) was elected to the Canadian Academy of Health Sciences for 2021. One of six new Fellows is recognized for contributions to the promotion of health science. This recognition reflects their dedication and excellence in their field.

**Royal Society of Canada’s Sir John William Dawson Medal**
Professor Catherine Potvin (Biology) was awarded the Royal Society of Canada’s Sir John William Dawson Medal. The Royal Society of Canada bestows the Sir John William Dawson Medal biennially to researchers who have made important and sustained contributions interdisciplinary research.

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

(II) **Acknowledgements**

- **Vice-Dean David Stephens (Mathematics & Statistics)** will be on a well-deserved deferred six-month sabbatical leave starting 1 January 2022. On behalf of the Faculty of Science, Dean Lennox said he would like to express his gratitude to Vice-Dean Stephens for his leadership, the support he has provided throughout the COVID-19 crisis, and for his invaluable service to the Faculty and across the various units at McGill.

- **Instructors and Students**
  At the end of another successful academic term, Dean Lennox said he would like to personally acknowledge the efforts of all instructors for their commitment to our students and delivery of quality instruction. Moreover, he would like to thank the students who have been working in partnership with the Faculty and offering comments on what works and what does not during the last 21 months of remote learning. He wished students the very best during the December exam period and a well-earned break.

6. **Science Undergraduate Society (SUS) Report**

Mr. Rohan Bhutkar, SUS President, gave the following SUS report.

As the exams are fast approaching, operations were slowing down at the SUS and departmental levels. However, the last month has been quite eventful. The teams have been finalized for Science Games, and ticket sales will close the week of 13 December 2021. The week-long event will take place early in the Winter 2022 semester. Additionally, the date and venue of the SUS Gala have been confirmed. As students feel greater stress from exams, various mental health and de-stressor events have been held.

In regard to the SUS (Internal) portfolio, the Science Games Committee (SGC) and the Science Internal Committee (SIC) have been providing events for students. Some SIC events have included a trivia night and collaborating with the Mental Health Committee on exam de-stressors. On the other hand, the SGC has finalized teams and ticket sales. The SGC hosted a successful Hype Night and looking forward to the Game of Thrones themed events.

The Sustainability portfolio has been very active over the last month. The Mental Health Committee completed their collaboration event with the SIC and hosted a Paint with Pups event in which students spent time with therapy dogs to de-stress while painting. Also, the MHC hosted a Wellness Hunt with prizes on Instagram, a charity week in November 2021, with all proceeds going towards Dans La Rue. This organization supports homeless and at-risk youth in the Montreal community. The week included a variety of
sales as well as events across the City, such as a bar night at Tipsy Cow. Additionally, the SUS environment committee hosted a sustainable eco-shop hop to highlight sustainable stores in the City and have continued to work on their sustainable cookbook.

After Hours have continued to be a huge success each Tuesday, and the V.-P. (External) has been partnering with various groups to offer tailored events each week. In December 2021, two such events include SGC captains bonding and an IHI bonding event on 7 December 2021. The V.-P. (Academic) has been managing student complaints and advising on an action plan. She has also met with the Schulich Library Committee and looks forward to aiding in the construction planning. The SUS President has been working closely with the Office for Science Education and the University Advancement in planning the OSE Poster Showcase. This year the focus is on further integrating alumni into the event. The SUS was also currently looking into partnering with the academia week team to increase their reach.

This semester has been very successful, and the SUS looks forward to working with the Faculty as the year progresses.

Dean Lennox thanked Mr. Bhutkar for an informative SUS Report. He added that the libraries had been remarkable partners and provided innovative support to the students in the last 21 months. The libraries are an integral part of the university, and a motion of thanks would be appropriate.

Mr. Rohan Bhutkar moved, seconded by Dr. Dechief, that the Faculty express its wholehearted thanks and appreciation for the incredible work of the library system during the Fall/Winter 2020-2021 and the Fall 2021 semesters.

The resolution of thanks was unanimous.

Dean Lennox said that there would be a presentation and discussion on wellness at the next Faculty meeting.

7. Science Equity and Climate Committee

Associate Dean (Graduate Education) Laura Nilson reminded members about McGill's Employment Equity Survey and encouraged all faculty to complete a short and confidential survey. The survey captures whether a given employee self-identifies as a member of one or more designated groups as defined by the Federal and Provincial Legislation. Also, the survey aims to correct the disadvantages in employment experienced by members of groups who have faced persistent and systemic barriers to equity in employment. McGill's Employment Equity Policy guides McGill's efforts in this area under Quebec and Canadian law. Should members decline to participate, please indicate this by selecting "no" for the first question on the survey. Choosing to decline to complete the survey will at least provide the university with the number of participants. It is not mandatory to respond to all questions, and selecting multiple answers is permitted. The results of the survey will be reported only in summary or aggregate form. The survey may be found at https://www.mcgill.ca/equity/employment-equity/employment-equity-survey.

8. Provost's Action Plan to Address Anti-Black Racism

Associate Dean Laura Nilson said that as part of the Provost's Action Plan to Address Anti-black Racism, the faculties receive a small budget each year to support initiatives that will further the goals of the plan. Some of the budgets for 2022 will be used to support the first annual conference for Black Excellence in Science, Technology, Engineering, Mathematics, and Medicine/Health (BE-STEMM 2022). The event is being organized by the Canadian Black Scientists Network and will be held from January 30 to February 2, 22,022. The conference is open to all (Black Canadians, Indigenous Canadians, and Allies of all identities) from across the STEMM landscape.
For more information about the conference please go to [https://blackscientists.ca/events-media/](https://blackscientists.ca/events-media/).

Dean Lennox thanked Associate Dean Nilson for the above two important reports.

9. **The New Vic Project Update**

Dean Lennox reported that the project team was continuing to test scope changes in order to bring the costs down to the new ceiling of $825M for the entire project. The RVH has been empty since 2015, and apart from some emergency repairs, the buildings have been untouched for 16 years. There is a lot of deterioration in the buildings, and bringing them back to modern standards is really costly. The public consultation process undertaken by the City of Montreal is now complete. The report is anticipated to be released in March 2022 with their recommendations. The responses, including those from the Commissioners, have been very strong for the project. There was no question that the project has been well conceived and well received by the Montreal community. In the last three weeks, there has been a lot of attention coming from the Indigenous community, particularly the Mohawk community and the Mohawk Mothers, about the possibility of there being human remains on the RVH project site. McGill commissioned a study in 2016 that concluded that it was unlikely that there would be unmarked graves on the project site. McGill has pledged to partner with the Mohawk community and other external groups to survey the sites in the Spring 2022. Within the RVH project, there is a very important Indigenous engagement component, and there will be Indigenous representation on the project and architecture. Dean Lennox said he would continue to update members on the RVH project at future Faculty meetings.

10. **Reports of Associate Deans**

a) Associate Dean (Academic) Axel Hundemer

There was no report for the current meeting.

b) Associate Dean (Student Affairs) Anthony Mittermaier

Associate Dean Mittermaier said that the start of the exam period was going well, apart from a few wrinkles. He reminded members that if students contact them because they cannot write their exams related to COVID-19 issues, students must fill out two Minerva request forms for accommodations for deferred exams.

Dean Lennox thanked Associate Dean Mittermaier for the update on the exam procedures.

c) Associate Dean (Graduate Education) Laura Nilson

Associate Dean Nilson reported on the rationale behind some of the constraints to scheduling oral defences required by Graduate and Postdoctoral Studies. The first constraint is that defences typically need to be scheduled four weeks in advance. The second constraint is that GPS generally restricts a limit of four defences per day across the university. The four-week requirements are for planning purposes, reflecting the time necessary for GPS to identify Pro-Deans to chair the oral defence committee. According to GPS, the four-week limit is necessary because GPS schedules an average of 550-600 oral defences per year at McGill and finding a Pro-Dean for each is very challenging. Because both of these constraints stem from the difficulty in finding Pro-Deans, Associate Dean Nilson encouraged members to sign up to serve as Pro-Deans on an annual basis to ensure that Ph.D. oral defences are carried out smoothly and that students graduate on time.

To sign up to serve as a Pro-Dean, go to the link below:
d) Associate Dean (Research) John Stix

On behalf of Associate Dean Stix, Dean Lennox gave a brief overview of the activities in the research portfolio. The federal government has announced formal dates for submitting both the LOIs and final applications for the Canada Excellence Research Chairs (CERC) competition and the Canada First Research Excellence Fund (CFREF) competitions. There are a limited number of possible applications for each of these programs. Associate Dean Stix will be sending out the details of internal deadlines and work with all the Chairs and faculty members to ensure that the best proposals are submitted. Dean Lennox commended the outstanding work done by Eduardo Ganem Cuenca (Research and Grants Facilitator) and Preeti Purba-Singh, (Grants and Awards Administrator).

11. **Report on Actions of Senate**

– **Senate Meeting of 17 November 2021: Senator Jacques Hurtubise**

After approval of the Senate Steering report, the Principal began the meeting with a campus update. There were almost no incidents of COVID infection in the previous month, only one being reported; the vaccination rate is about 95%. A similar situation seems to hold for universities in the rest of the province. In her usual mention of highlights of the preceding month, she thanked the members of the Emergency Operations Centre (EOC), which had just had its final meeting. Since she had just returned from the meeting of the American Association of Universities, she remarked on the different cultures of American and Canadian universities, notably with respect to the pandemic. She also announced a major renovation of Pollack Hall.

**Two reports of Academic Policy Committee (APC) were presented:** The 507th report. Among major items approved by Senate: the creation in the Faculty of Engineering of an M.Sc. in Urban Planning, Policy and Design (45 cr.), and a proposal to establish the Department of Equity, Ethics and Policy and the Department of Global and Public Health in the Faculty of Medicine. The Senate also approved the APC Course Delivery Parameters proposal for the Winter 2022 Academic Term (‘the 20% rule’), which APC had received in turn from the Ad hoc advisory committee on COVID academic planning and policies. There was this time some dissension.

The annual report of APC was also presented, giving a thorough summary of the activities of what is obviously a very busy committee.

**Senate Nominating** presented a fairly short list of nominations to committees, which were approved.

Vice-principal Weinstein presented a (quite beautiful) annual report on **University Advancement.** Highlights include the second highest annual fundraising total in the university history, at 179M, and the fact that more than 25 % of McGill’s donations are from abroad. The extra efforts the University made to maintain contact with the community through the pandemic seem to have been very successful.

Senator Beech then presented the report on **Code of student conduct and disciplinary procedures.** He emphasized the increase in the case-load due to online learning, and presented the no-contest resolution process that was used to reduce the number of hearings to a manageable level. There was also a dramatic increase in the non-academic offenses, mostly linked to behaviour in residences putting other students as risk.
Ad hoc advisory committee on COVID academic planning and policies. Two goals of deliberations of the committee at the moment are methods for accommodating students who cannot attend in person, and giving faculty methods for reaching in a synchronous fashion the students who aren’t there. On the agenda is discussion of faculty accommodation.

Senate adjourned at 4pm.

- Joint Meeting of the Board of Governors and the Senate on November 11, 2021: Senator Melanie Dirks

The joint meeting began with opening remarks by Chancellor McCall MacBain, who noted that it is important for McGill to be “bolder, better, and sooner,” and highlighted that McGill had been named Canada’s best university by Maclean’s magazine for the 17th year in a row.

Principal Fortier introduced the meeting’s topic “The Execution of McGill’s Mission in a Changing World” via a pre-recorded video message as she was attending a meeting of the World Economic Forum. Principal Fortier noted that the pandemic resulted in dramatic changes in teaching, learning, and working at McGill, stating that the lessons we learned during the pandemic would help us transition to a “new and better normal.” She highlighted the New Models of Work Project Office and the Working Group on New Models of Academic Program Delivery as two initiatives undertaken to achieve this goal.

Professor Christopher Buddle, Associate Provost (Teaching and Academic Programs) and Diana Dutton, Associate Vice-Principal (Human Resources) provided an overview of the four presentations scheduled for the meeting, which focused on implications of the changing landscape for higher education and work in general.

Prof. Laurie Snider, Director of the School of Physical and Occupational Therapy (SPOT), provided an overview of SPOT’s integration of remote and in-person learning during the pandemic, highlighting that because they had to have in-person instruction, they needed to develop hybrid models of instruction. Josephine Nalbantoglu, Associate Provost Graduate Education, presented on new interfaculty, interdisciplinary, and interdepartmental graduate programs, such as non-thesis MA programs in International Development and Digital Humanities, as well as cumulative or stackable Master's degrees which combine a number a number of short graduate credentials in a given discipline. Lorraine Mercier, Director of Facilities Management and Ancillary Services, described an initiative of the New Models of Work Project Office testing open shared workspaces with adjustable furniture and some closed offices for quiet or confidential work. Prof. Manuel Balán, Associate Dean of Student Affairs, discussed activities in the Office of Advising and Student Information Services (OASIS), highlighting the increased demand for student advising during the pandemic, and noting that moving to online services provided benefits for both students and staff. He noted that offering both in-person and online services allows staff to best accommodate needs of individual students.

After the presentations, participants took part in breakout room discussions focused on three questions: (1) What are the challenges and opportunities in realizing the University’s mission in a changing world when it comes to (a) innovation in teaching and learning, (b) creating flexibility in our model of work; (2) What actions, projects, or initiatives could be undertaken when considering (a) delivery of academic programs, (b) facilitating a flexible working environment; (3) What can we learn from other sectors or other stakeholders around doing things differently in both our academic program delivery and the work environment? Groups were assigned to one of the questions, and following the breakout groups, a representative from each group summarized the discussion for the general group. Participants noted that it would be crucial for McGill to seek as much feedback as possible from students and staff about new initiatives and changes to
existing structures, including moving to shared work spaces and hybrid or online learning approaches.

– Senate Meeting of 1 December 2021: Senator Jeffrey McKenzie

Senator McKenzie will report at the next Faculty of Science meeting scheduled on 18 January 2021.

12. **Members’ Question Period**

There were no members’ questions.

13. **Other Business**

Dean Lennox thanked members for attending the meeting and wished everyone a well-deserved break.

There being no further business, Prof. Hurtubise **moved**, seconded by Prof. Dirks, that the meeting be adjourned at 4:38 p.m.

**The motion carried.**