

**FACULTY OF SCIENCE  
Meeting of Faculty  
3 December 2019  
Leacock Building, Room L232**

**ATTENDANCE:** As recorded in the Faculty Appendix Book

**DOCUMENTS:** S-19-13, S-19-14

Dean Lennox called the meeting to order at 3:00 p.m., and welcomed members to the fourth Faculty of Science meeting of the year.

**1) ADOPTION OF AGENDA**

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

**The motion carried.**

**2) PROVOST AND VICE-PRINCIPAL (ACADEMIC) CHRISTOPHER MANFREDI**

Dean Lennox introduced Provost and Vice-Principal (Academic) Christopher Manfredi.

Provost Manfredi said that the University is currently in the budget development process. The budget is usually a complicated process because it is developed largely in the absence of information. Most of the information that is needed to develop the budget is provided after the Board of Governors (BOG) approves the budget, and it will soon come to a Senate meeting, for information. Last year, there was a slight surplus in the budget, which was better than anticipated. There were two reasons for this: (i) after the fiscal 2019 budget was submitted, the government confirmed a change in the weighting factors of disciplines, which affected the government grant in a positive way, and (ii) revenue from tuition fees was higher than expected. The University is in a transitional year due to the deregulation of international tuition fees. This will not affect the Faculty of Science because tuition fees for international undergraduate students have been deregulated for some time. However, it will affect the University to some degree because the former tuition fee program generated a building and grounds grant, whereas, with the new program, this does not occur. Therefore, the University is losing government grant funds for the faculties (Engineering, Management, and Science) that have deregulated tuition fees. Tuition fees for foreign students in the Faculty of Arts, which has the largest proportion of international undergraduate students, will be deregulated for the first time, and the increase will be implemented gradually. The budget for the 2020 fiscal year is a deficit budget, but the budget is within 0.5% of being balanced.

Provost Manfredi said that Prof. Christopher Buddle (current Dean of Students) has been appointed Associate Provost (Teaching and Academic Programs) for the next five years. Associate Provost Buddle will also be overseeing Teaching and Learning Services (TLS). After an extensive review of the Deputy Provost (Student Life and Learning) portfolio, it became apparent that there was a need for an academic appointment with a focus on teaching and academic programs. A new Dean of Students will be appointed in Spring 2020. From his point of view as an academic, Provost Manfredi said that there are two components that define academic activities and academic vision; (i) the recruitment and retention of academic staff; and (ii) the teaching and academic programs. Provost Manfredi said he would be pleased to answer members' questions.

Provost Manfredi added that one aspect of the funding formula that has changed was the formula used to calculate the Capital grant. Under the old formula, it was simply

calculated on a square footage basis, and the University would receive approximately \$45M per year for deferred maintenance costs, etc. However, two years ago, the government took into account the state of the physical infrastructure, as well as the square footage. As a result, the Capital grant increased from \$45M to \$115M for the current year, which is good news for McGill because this means that not all the money that the University borrowed needs to be spent.

In response to a member, Provost Manfredi replied that, regarding weights per discipline, the government tries to calculate the actual costs of delivering programs. The weighting of undergraduate programs did not change very much, whereas the Ph.D. programs are currently all being weighted equally. In the past, there was quite a wide range of weighting per discipline, and the University had expensive Ph.D. programs that had lower weights. On the other hand, the weights of the Masters degrees in Engineering were lowered, but on the whole, the reweighting has worked out well for the University. Also, the number of categories has decreased, making it easier for the University to manage and administer. Provost Manfredi said he would provide the weighting grid to Dean Lennox for members' information.

Responding to questions from Dean Lennox, Provost Manfredi explained that at other institutions, all Ph.D. programs in Psychology are weighted equally. With reference to international students in the B.A. & Sc. degree, who are currently paying fees similar to those of Arts students, will the fees for these students remain the same once the Faculty of Arts transitions to the deregulated international tuition fees? Provost Manfredi said that tuition fees for international students in the B.A. & Sc. degree are about \$19,000 and the fees for Arts students are \$18,000. The University is in the process of reviewing the fee structures and benchmarking within Canada and AAU public universities. For comparison purposes, although McGill will not be increasing international tuition fees for Arts students to anywhere near this amount, average out-of-state tuition fees at an AAU public university are \$42,000 US per year. Provost Manfredi pointed out that there is considerable variation among Arts degrees, unlike in Engineering, Management, and Science.

In reply to a member, Provost Manfredi said that most of the renovations are done by external contractors and not by Facilities Management and Ancillary Services at McGill. The biggest problem is that there are insufficient project managers at McGill, and recruiting project managers is a challenge, especially in the current construction market. One of the changes is that the University can now charge project managers against the Capital budget rather than the Operating budget. The money that will be freed up in the Operating budget will go towards other priorities at McGill.

Responding to a question concerning the recent email communication from the Deputy Provost (Student Life and Learning) Fabrice Labeau, Provost Manfredi said that normally the University administration does not interfere in the internal functioning of student associations, but when there is an assertion that a McGill student feels that they have been the subject of harassment or ill-treatment by other students, the University has an obligation to gather the facts and make a statement.

Dean Lennox thanked Provost Manfredi for his informative overview of the budget process at McGill.

**3) MINUTES OF 12 NOVEMBER 2019**

**S-19-13**

Prof. Hurtubise **moved**, seconded by Prof. Perepichka, that the Minutes be approved.

**The motion carried.**

#### 4) **BUSINESS ARISING FROM THE MINUTES**

- (i) Faculty of Science Meeting, 15 October 2019  
- Item #6 (a) Academic Committee Report (S-19-8)  
PHYS 447, Applications of Quantum Mechanics (AC-19-4)

Associate Dean Hundemer explained that, at the Faculty meeting of 15 October 2019, a friendly amendment was passed to clearly specify the program restrictions for students taking PHYS 447; this has been done. Therefore, PHYS 447 is not open to students in the following programs, two of which affect the Faculty of Engineering:

Bachelor of Engineering (B.Eng.) - Honours Electrical Engineering  
Bachelor of Engineering (B.Eng.) - Minor Physics  
Bachelor of Science (B.Sc.) - Honours Mathematics and Physics  
Bachelor of Science (B.Sc.) - Honours Physics  
Bachelor of Science (B.Sc.) - Honours Physics and Chemistry  
Bachelor of Science (B.Sc.) - Honours Physics and Computer Science

However, at the last Faculty meeting on 12 November 2019, PHYS 447 was withdrawn from the Agenda because consultation with the Faculty of Engineering had not taken place in time to report back to Faculty. Following the approval from Engineering, the consultation process is now completed. Since Faculty passed a friendly amendment at the meeting of Faculty on 15 October 2019, a motion to approve the course was not required.

- (ii) Faculty of Science Meeting, 12 November 2019  
- Item #3, Academic Committee Report (S-19-12)  
BIOL 314, Molecular Biology of Cancer (AC-19-17)

Associate Dean Hundemer said that, at the last Faculty meeting held on 12 November 2019, a member pointed out that if the content of the course for BIOL 314 was broadened, then the course description should be updated as well. The description, which has now been revised to reflect the broader scope, was approved at the Academic Committee meeting of 19 November 2019.

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

**The motion carried.**

#### 5) **REPORTS OF COMMITTEES**

- a) Academic Committee **S-19-14**

**The following proposals were approved at the Academic Committee meeting held on 19 November 2019:**

##### **I. Course Revisions:**

- Biology  
BIOL 363      Mammalian Evolution      **AC-19-21**  
Changes: number [from -463], prerequisites, restrictions  
3 credits

Associate Dean Hundemer said that the major change involves the course level, from BIOL 463 to BIOL 363. The reason for renumbering the course is to make it available to a larger pool of students and to complement other courses offered by members in the Redpath Museum. BIOL 363 will be offered in the Fall semester instead of the Winter. The prerequisites and the course evaluation have been modified to reflect the change in course level. A restriction has been added to exclude students from taking the course again for credits.

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

**The motion carried.**

## II. New Course:

- Earth & Planetary Sciences  
EPSC 503      Advanced Structural Geology      **AC-19-22**  
3 credits

Associate Dean Hundemer introduced a new advanced introductory topics course, EPSC 503, in the Department of Earth & Planetary Sciences. The course has been offered for several years as a selected topics course; therefore, the instructor would now like to offer it as a formal course.

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

**The motion carried.**

## III. Program Revisions

- (i) Earth & Planetary Sciences  
- Minor in Geochemistry      **AC-19-23**

Associate Dean Hundemer described the changes in the Minor in Geochemistry. The revisions consist of the removal of several courses, as well as the addition of one course more suited for the Minor.

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

**The motion carried.**

- Minor in Geology      **AC-19-24**

Associate Dean Hundemer said that two new courses have been added, and one course has been deleted, seeing that it is no longer recommended for the Minor in Geology.

Graduate Program Option Retirements:

- M.Sc. in Earth & Planetary Sciences: Environment      **AC-19-25**
- Ph.D. in Earth & Planetary Sciences: Environment      **AC-19-26**

Associate Dean Hundemer pointed out that the Environment Options in the M.Sc. and Ph.D. Programs in Earth & Planetary Sciences were being retired given that there has been no enrolment in the Option since its creation in 2007.

Associate Dean Hundemer **moved**, seconded by Prof. McKenzie, that the Environment Options of the above graduate programs be retired.

**The motion carried.**

- (ii) Microbiology & Immunology  
- Honours in Microbiology & Immunology **AC-19-27**

Associate Dean Hundemer said that the modifications were to include courses in the Complementary list in the Honours Program in Microbiology & Immunology to match courses available to some students in the Major and Liberal programs. Also, the research courses listed under the Complementary courses are being removed since Honours students are required to take Honours Research Project courses.

Correction to course title:  
BIOL 314, Molecular Biology of Cancer

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

**The motion carried.**

- (iii) Mathematics & Statistics  
- B.Sc. Liberal; Core Science Component in Mathematics **AC-19-28**  
- B.Sc. Major in Mathematics **AC-19-29**

Associate Dean Hundemer said that the above programs incorrectly stated that MATH 222 could be replaced with an Elective course instead of a Complementary course.

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

**The motion carried.**

- (iv) Chemistry  
- B.Sc. Honours in Chemistry; Bio-Organic **AC-19-30**

Associate Dean Hundemer said that the only change in the Honours in Chemistry; Bio-Organic Option, involves removing a course that was listed twice in error.

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

**The motion carried.**

6) **DEAN'S BUSINESS**

a) Announcements

I. **Faculty Event:**

Dean Lennox reminded members that the Faculty of Science Holiday Party will be held on Thursday, 12 December 2019, from 4 p.m. to 6 p.m. in the Faculty Club Ballroom. All members of the Faculty, as well as their spouses and children, are welcome. Dean Lennox said he is hoping to see everyone there.

**II. Award and Prize Winners**

Dean Lennox drew members' attention to the list of award and prize winners published on the Faculty's website, under Kudos, <https://www.mcgill.ca/science/kudos>  
Mr. Fergus Grieve, Communications Strategist, posts award winners in the Faculty and maintains the Kudos web page for the Faculty of Science.

**III. Three-Minute Research Talks**

To vitalize future Faculty meetings, effective January 2020, Dean Lennox said that there will be several talks given by new professors about their research areas, as well as by professors who have given talks at a Soup and Science event.

**IV. Science Undergraduate Society (SUS) Activities**

Dean Lennox announced that the SUS will be reporting at Faculty meetings to present their monthly report. Traditionally, SUS reported at Academic Committee meetings, but the Faculty meetings would be a better venue.

**7) SCIENCE EQUITY AND CLIMATE COMMITTEE (SECC)**

Associate Dean (Graduate Education) Laura Nilson will be reporting on the activities of the SECC at the next Faculty meeting scheduled for 14 January 2019.

**8) THE NEW VIC PROJECT UPDATE**

Dean Lennox gave his monthly update on the New Vic project. He said that on 2 and 3 December 2019, there had been meetings with the user groups – there are 11 user groups in the project. Two user groups are associated with Sustainability Systems, which is part of the Academic Plan. The University received Draft #2(b) of the Functional and Technical Program (FTP) from the architects. On the morning of 3 December 2019, the Dean and the team of architects gave a presentation to users on how to read the very lengthy FTP document. As previously reported at the November Faculty meeting, the project is about four weeks behind schedule, but it is anticipated that the target date of 15 June 2020 will be met, in order to meet the submission deadline for review by the Quebec government. The government's final decision for government funding for the project will be made by 1 October 2020. As the Academic Lead of the New Vic Project, Dean Lennox said that he had great engagement with the members of the Faculty of Science. Dean Lennox added that the FTP is a pretty impressive document, even at this stage. Having spoken with alumni groups in Boston and Toronto, he reports that they are deeply interested in the New Vic Project, and McGill will need strong partners, not only for providing funding but also for their positions and influence. Dean Lennox reiterated that this project is important to the Faculty of Science, not only because it is providing new opportunities but also because it will free up a tremendous amount of space. In July 2020, working groups within the Faculty will begin planning and strategizing the use of the freed-up space. At present, the freed-up space will be in the following McGill buildings: Otto Maass, Frank Dawson Adams, to a great extent Burnside Hall and Wong, and to some degree the McConnell Engineering, and Macdonald Engineering. Dean Lennox said he would most likely make a brief presentation of the FTP at the Faculty meeting on 14 January 2020.

**9) REPORTS OF DIRECTOR AND ASSOCIATE DEANS**

- a) Director (Advising Services) Nicole Allard
- b) Associate Dean (Academic) Axel Hundemer
- c) Associate Dean (Graduate Education) Laura Nilson
- d) Associate Dean (Research) John Stix

There were no reports from the Director and Associate Deans.

## 10) REPORT ON ACTIONS OF SENATE

Joint Board-Senate Meeting of 14 November 2019 – Senator Jacques Hurtubise

The annual Senate-Board meeting has for years consisted of a fairly open ended discussion of a topic chosen by the central administration, the topic generally being one which is broad, long-term in nature, and fairly uncontroversial. This year's was no exception. The question was how to make McGill a university that is open, connected, and purposeful.

Principal Fortier opened the session, and explained how the three themes of openness, connectedness and purpose were the touchstones she had chosen for her mandate.

Prof. Henry Mintzberg, and Susan Mintzberg then gave a brief presentation contrasting two models of the university, the Ivory Tower and the Octopus; it ended with a plea for balance. The session then moved on to three presentations, giving examples of our institutional engagement:

- 1) Dr. Katya Marc spoke of the Faculty of Engineering's Engine program of industrial collaboration.
- 2) Prof. Doina Precup spoke to the meeting about the Montreal Artificial Intelligence scene, and McGill's role in the really quite major developments in the city.
- 3) Prof. Nandin Ramanujan gave a presentation on the Centre for Human Rights and Legal Pluralism.

The meeting then moved on to discussions at the various tables on the challenges and options available, then reported at the end of half an hour.

Amongst the challenges highlighted were

- 1) The difficulties of communication even within McGill (silos)
- 2) The lack of recognition within the University and within the system for community engagement
- 3) The need for engagement of McGill with Quebec society
- 4) The further demands on time that these initiatives require
- 5) The extra requirement of resources.

Options included

- 1) a better integration of indigenous students
- 2) a recognition of the different needs and viewpoints of international and local students
- 3) a better use of communication technologies
- 4) a more systematic organisation of venues for interdepartmental and interfaculty exchange
- 5) a redefinition of the notion of service for promotion and tenure.

The meeting closed at around 6:30 pm, and was followed by a reception.

Senate Meeting of 20 November 2019 – Senator Bettina Kemme

1) The meeting started with the Chair providing several remarks:

\* updating on the status of McGill exchange students in Hong Kong

\* observing the political landscape and how McGill fairs in regarding to having alumni that are now cabinet ministers

\* interaction with provincial and federal politicians to show the important activities within McGill and lobby for the cause of universities

\* mentioning a big donation for creating an online nursing program —> interestingly, the goal does not seem to make money with this but to reach within Quebec and Canada where brick-and-mortar universities cannot reach to.

\* Among her Kudos, the most north worthy for the Faculty of Science is probably

### **2020 Breakthrough Prizes for Physics**

Professors Daryl Haggard and Simon Caron-Huot, Department of Physics, have been honoured by the Breakthrough Prize Foundation for their contribution to the field of Physics. Prof. Haggard is a joint-recipient of the Breakthrough Prize in Fundamental Physics and Professor Caron-Huot won the New Horizons in Physics Prize.

2) A question asking whether McGill has a policy on the use of university facilities by external organizations and individuals that espouse views that may violate the dignity of the university community.

This question was triggered by another college having hosted Maxime Bernier and two other candidates from the People's Party of Canada and arguing that if McGill rented space to such a group that this would be contrary to McGill's policy on discrimination and harassment prohibited by law.

The answer by Provost Manfredi indicate that McGill would only then not allow an external individual or group to book a McGill venue where it is foreseeable that the event in question will occasion unlawful speech (e.g., hate speech, as defined by law) or pose a threat to physical security.

Otherwise, Provost Manfredi noted that McGill is committed to upholding the rights of all to freedom of expression, as well as the academic freedom of members of its internal academic community and that this recognition of rights to express views that may be perceived by some as hurtful or offensive does not derogate from McGill's commitment to equity, diversity and inclusion on our campus.

3) Open Discussion on "The future of internationalization at McGill" that was scheduled to last 45 minutes.

It lasted a lot less time with only few senators commenting.

A large chunk of the discussion was on the difficulties of international students at McGill due to the extra costs for this student group;

Other concerns raised were a lack of travel support for students to make such internationalization possible; and the bureaucratic hassle to determine course equivalencies for students who go abroad, which many departments in the Faculty of Science can probably agree to.

There was only little uptick to discuss issues such as what it means to do research on "international/global topics" or how to be "international" without actually the need to travel.



4) Of several reports that were presented, probably the only of interest is the one on revising the policy related to the naming of university assets. Goals

- \* allow for more flexibility: interpretation more namings for more donors,  
—> as such limit the time for naming (no more than 100 years) and/or only until the end of useful life of the asset unless endowment
- \* ensure integrity  
—> make sure of due diligence to ensure sound reputation before approval  
—> make it possible to revoke namings

Dean Lennox emphasized the importance of the last item mentioned in the above report because it affects donors and alumni for McGill's upcoming Bicentennial campaign.

11) **MEMBERS' QUESTION PERIOD**

In reply to a member, Dean Lennox said that the former Women's Pavilion, the Ross Pavilion, and the Hersey Pavilion at the Royal Victoria site will remain under ownership by the Quebec government. McGill is engaging in monthly meetings in discussions for possible occupants, and the government is really supportive of McGill's Academic Plan because they view it as a magnet for bringing in potential organizations, such as NGOs, cleantech companies, and government agencies (Environment Canada, for example). Dean Lennox said that, in partnership with the Quebec government, the expectation is that there be a meaningful ecosystem.

12) **OTHER BUSINESS**

There being no further business, Prof. Roulet **moved**, seconded by Prof. Hurtubise, that the meeting be adjourned at 4:00 p.m.

**The motion carried.**