FACULTY OF SCIENCE Meeting of Faculty Tuesday, December 4, 2012 Leacock Council Room – L232

ATTENDANCE: As recorded in the Faculty Appendix Book.

DOCUMENTS: S-12-12 to S-12-14

Dean Grant called the meeting to order at 3:00 p.m.

(1) ADOPTION OF AGENDA

Prof. Hynes **moved**, seconded by Prof. Zuroff, that the Agenda be adopted.

The motion carried.

(2) RESOLUTION ON THE DEATH OF EMERITUS PROFESSOR JAMES J. HOGAN, DEPARTMENT OF CHEMISTRY

402.1 Prof. David Harpp, on behalf of Prof. Bruce Lennox of the Department of Chemistry, read the Resolution on the Death of Emeritus Professor James J. Hogan.

It is with sadness that I inform the Faculty of the passing of Professor James Hogan on November 8, 2012 at the age of 71.

Jim came to McGill as an Assistant Professor in 1968 after an undergraduate degree from Rensselaer P.I. and a Ph.D. in Nuclear Chemistry from the University of Chicago. He retired from McGill in 2000 after 32 years of service.

Jim Hogan was a researcher in nuclear chemistry and published extensively, rising to the rank of Full Professor in 1979. His research brought him to national facilities in the UK, Italy, and Berekley, Brookhaven, and Los Alamos. He was also very active as a teacher, particularly known for his work in Freshman Chemistry. He was a Leo Yaffe Awardee in the Faculty of Science and was well known for his energetic presentations. It is interesting to note that Jim was hired as Leo Yaffe's protégé in research, but also followed Leo's tradition for excellence in teaching. He contributed to numerous University committees and was also well-known for his direct and sometimes feisty style – part theatre and all heart. He helped get things happen at McGill.

In addition to classroom teaching and research, he is very well known in two regards. He was perhaps best known as a passionate advocate and mentor of undergraduate students. In addition to his ca. 10,000 Freshman students, he served as an Advisor and Director of Undergraduate Studies for many years. Our most recent Homecoming weekend featured a gathering of the Class of 1977- a remarkable collection of students who to a person attributed many of their individual successes to "Dr. Hogan's" interventions and heart-to-heart talks on their behalf.

He is also well known for his work with David Harpp in developing an accurate method to detect cheating on multiple-choice exams. This has virtually eliminated cheating in multiple choice exams and established McGill again as a worldwide leader in academic integrity.

Jim settled in California in 2000 with his wife Susan. After a brief stint pretending, or least trying to be retired, he returned to the classroom and taught high school Chemistry in the Bay area for another 6 years. Although firmly settled in California he loved Canada and was very proud of his Canadian passport and his gmail email name of "1Canajun".

The Faculty of Science extends its condolences to his wife Susan, his three daughters, Betsy, Stephanie, and Catherine, five grandchildren, and four stepchildren.

The resolution was adopted unanimously.

402.2 Dean Grant thanked Prof. Harpp for the very nice resolution.

(3) MINUTES OF OCTOBER 16, 2012

S-12-12

Prof. Harpp **moved**, seconded by Prof. Zuroff, that the Minutes be approved.

The motion carried.

(4) BUSINESS ARISING FROM THE MINUTES

There was no business arising from the Minutes.

(5) REPORTS OF COMMITTEES

a) Committee on Student Standing

S-12-13

Director Allard said that there had been one request submitted to the Committee: an appeal to have courses E-flagged (i.e., not for credit, not calculated into the GPA, but remaining on the student's transcript). The appeal was approved.

b) Academic Committee

S-12-14

The Academic Committee approved the following on Tuesday, October 30, 2012 and Tuesday, November 20, 2012:

Associate Dean Hendren said that new courses would be considered before programs.

MINOR COURSE CHANGES (For Information Only)

- Report on Minor Course Changes

AC-12-9

Associate Dean Hendren described the changes in the Minor Course Change Report.

MAJOR COURSE CHANGES

1) Microbiology & Immunology

MIMM 212

Laboratory in Microbiology Credit weight change from 2 to 3 3 credits

AC-12-18

Associate Dean Hendren **moved**, seconded by Prof. Zuroff, that the changes be approved.

The motion carried.

2) Anatomy & Cell Biology

ANAT 315 Anatomy/Limbs and Back AC-12-22

Credit weight change from 4 to 3

3 credits

Associate Dean Hendren **moved**, seconded by Prof. Green, that the changes be approved.

The motion carried.

3) Earth & Planetary Sciences

EPSC 355 Sedimentary Geology AC-12-33

Changes: number [from 455], description

3 credits

Associate Dean Hendren **moved**, seconded by Prof. Hynes, that the changes be approved.

The motion carried.

EPSC 425 Sediments to Sequences AC-12-34

Changes: description, prerequisites

3 credits

Associate Dean Hendren **moved**, seconded by Prof. Hynes, that the changes be approved.

The motion carried.

NEW COURSES

1) Neuroscience

NSCI 430D1/D2 Honours Research Project AC-12-10

9 credits

Associate Dean Hendren introduced the course, NSCI 430D1/D2. She said that there had been an extensive discussion of the course at the Academic Committee meeting, and that as a result, the breakdown of the evaluation had been modified.

Associate Dean Hendren **moved**, seconded by Prof. Zuroff, that the course be adopted.

The motion carried.

2) Earth System Science

ESYS 480D1/D2 Honours Research Project AC-12-14

6 credits

Associate Dean Hendren briefly described the course, and said that while the grading scheme can be discussed between the student and supervisor before commencement of the course, the written component must be at least 50%.

Associate Dean Hendren **moved**, seconded by Prof. Hynes, that the course be adopted.

The motion carried.

3) Mathematics & Statistics

4 credits

405.4 Associate Dean Hendren said that in this new course students would be learning statistical tools and techniques for measuring, controlling and improving quality control in industrial processes. As part of the graded work, students would be observing and reporting on the operations of actual industries. The course would be included in a variety of Mathematics and Statistics programs.

> Associate Dean Hendren moved, seconded by Prof. Hurtubise, that the course be adopted.

The motion carried.

MATH 595	Topics in Analysis	AC-12-26
MATH 596	4 credits Topics in Algebra & Num Theory 4 credits	AC-12-27
MATH 597	Topics in Applied Mathematics 4 credits	AC-12-28
MATH 598	Topics in Probability & Stats 4 credits	AC-12-29
MATH 599	Topics in Geometry & Topology 4 credits	AC-12-30

405.5 Associate Dean Hendren said that the above topics courses would allow for flexibility in teaching various aspects of mathematics and statistics.

> Associate Dean Hendren moved, seconded by Prof. Hurtubise, that the above courses be adopted.

The motion carried.

4) **Psychology**

PSYC 538 Categoriz Communic & Consciou AC-12-31 3 credits

405.6 Associate Dean Hendren said that this course, in the realm of cognitive science, would be of particular interest to students in psychology, cognitive science and neuroscience.

Associate Dean Hendren **moved**, seconded by Prof. Zuroff, that the course be adopted.

The motion carried.

5) Chemistry

CHEM 516 Nuclear and Radiochemistry AC-12-32 3 credits

405.7 Associate Dean Hendren said that the course was primarily intended for students in the life sciences, to broaden their understanding of nuclear and radiochemistry.

Associate Dean Hendren **moved**, seconded by Prof. Harpp, that the course be adopted.

The motion carried.

MODERATE PROGRAM CHANGES

1) Neuroscience

- Minor in Neuroscience

AC-12-11

Associate Dean Hendren described the changes to the Minor in Neuroscience.

Associate Dean Hendren **moved**, seconded by Prof. Bell, that the changes be approved.

The motion carried.

- Major in Neuroscience

AC-12-12

Associate Dean Hendren described the changes to the Major in Neuroscience, listed in Document AC-12-12.

Associate Dean Hendren **moved**, seconded by Prof. Green, that the changes be approved.

The motion carried.

2) Earth System Science

- Major in Earth System Science

AC-12-16

405.8 Associate Dean Hendren said that the changes to the Major in Earth System Science would allow increased choice and reduced course overlap. Additionally, students would be required to take a course in computer science as well as one with societal content.

Associate Dean Hendren **moved**, seconded by Prof. Roulet, that the changes be approved.

The motion carried.

3) Microbiology & Immunology

- Liberal in Microbiology & Immunology
- Major in Microbiology & Immunology
- Honours in Microbiology & Immunology

AC-12-19

AC-12-20

AC-12-21

Associate Dean Hendren said that the changes were necessitated by the change in credit weight to MIMM 212.

Associate Dean Hendren **moved**, seconded by Prof. Roulet, that the changes be approved.

The motion carried.

NEW PROGRAMS:

1) Neuroscience

- Honours Program in Neuroscience

AC-12-13

405.10 Associate Dean Hendren said that the new Honours Program in Neuroscience consisted of the modified Major in Neuroscience, just approved, along with additional requirements and the new honours research course, NSCI 430D1/D2, also just approved.

Associate Dean Hendren **moved**, seconded by Prof. Dudek, that the program be adopted.

The motion carried.

2) Earth System Science

- Minor in Earth System Science

AC-12-15

Associate Dean Hendren said that the Minor in Earth System Science would consist of the four ESYS courses as required courses, with the addition of two Complementary courses from the three participating units, for a total of 18 credits.

Associate Dean Hendren **moved**, seconded by Prof. Roulet, that the program be adopted.

The motion carried.

- Honours in Earth System Science

AC-12-17

405.12 Associate Dean Hendren said that the Honours in Earth System Science would consist of the recently approved Major with additional requirements, plus the new research course.

Associate Dean Hendren **moved**, seconded by Prof. Roulet, that the program be adopted.

The motion carried.

NEW DEGREE DESIGNATION

- B.Sc. (Global) Option

AC-12-36

- Associate Dean Hendren said that the B.Sc. (Global) Option would be completed within the 90 (120) credits of the B.Sc. requirements. The Global Option requirements could overlap with program requirements. Students would be awarded, for example, a B.Sc. Biology (Global).
- The Global Option would consist of two required elements and at least one complementary element.

405.15 Required Elements:

- language course at least 3 credits of a McGill language course, not the student's first language
- research course at least 3 credits of any research course on the DMURL list

405.16 Complementary Elements:

- at least one of the following:
- 1) field studies course; 2) internship; 3) exchange; 4) global course(s) from Science or other faculties
- The B.Sc. (Global) Option will be administered by the Global Options Coordinator, Ms. Martine Dolmière.
- In response to a question, Dean Grant and Associate Dean Hendren said that either English or French would satisfy the language requirement, provided that the language was not the student's first language. Furthermore, even if a student was proficient in a number of languages, the language requirement would not be waived. The language

course would have to be a McGill course in order that fulfillment of the requirement could be easily verified.

A member was concerned that the global courses were not spelled out in the document. However, Associate Dean Hendren said that if the courses were spelled out, each time a new course was added, the global option would have to be brought back to Faculty. Units had been previously polled, and there were a very large number of courses at McGill which would satisfy the global requirement; having Martine Dolmière as coordinator would allow a consistent "vetting" of what constitutes a global course.

Associate Dean Hendren **moved**, seconded by Prof. Zuroff, that the B.Sc. (Global) Option be adopted.

The motion carried unanimously.

OTHER (For Information Only)

1) Science Courses to be Unretired

AC-12-23 (REVISED)

Associate Dean Hendren said that in response to a request from APC, Science had come up with a list of courses that could be retired. However, APC had in blanket fashion retired all courses which had had zero enrolment over the last five years. Science had now come up with a list of courses that should be "unretired." These were listed in Document AC-12-23 (Revised). The list had been sent to SCTP.

2) Courses with Missing Course Descriptions

AC-12-35

- Associate Dean Hendren said that MELS had mandated that all courses must have a course description, even if the content of the course was obvious from the title. Enrolment Services had made suggestions for all courses which did not have a description. Units had reviewed these suggestions, and where appropriate modified them. The final results were listed in Document AC-12-35.
- Dean Grant said he would like to thank the Academic Committee for their hard work during the fall semester. He added that courses and programs are the mainstay of the university.

(6) REPORT ON ACTIONS OF SENATE

Please note that the entire Minutes of Senate are available on the Web at http://www.mcgill.ca/senate/senate-2012-2013/senate-2012-2013-meeting-documents

Senate Meeting of October 17, 2012 - Prof. David Harpp

The Principal discussed the 2011-2012 year and commented on the first few weeks in office of the new Québec government, remarking that it now appeared likely that the proposed higher education summit would be held in the spring of 2013 rather than the fall of 2012.

Dean Eidelman presented the Agenda item on asbestos research, consisting of the consultation report prepared by Dr. Fuks, McGill's Research Integrity Officer, and indicated that the report would be released publicly later in the afternoon in the press.

To a question from students on issues of interdisciplinary study – Provost Masi responded that the Administration wishes to provide more latitude to students in this regard, but said students must be able to register for courses which are required for their

majors and minors, so this need must be given priority over access to courses which are not necessary for program completion. The Provost will explore ways to improve opportunities for interdisciplinary study.

Another question concerned postgraduate supervision. Dean Kreiswirth described various McGill events, such as workshops and conferences, which are related to the supervisor-supervisee relationship, and described new projects along these lines that will be introduced this year. These include a supervision health scan which will be conducted in November, and the launch of a supervision knowledge base covering forty topics.

Provost Masi presented the document on Achieving Strategic Academic Priorities 2012 (ASAP). This was followed by a revised motion for endorsement which read: "Be it resolved that Senate endorse the basic principles and broad outline of ASAP 2012 as McGill's strategic academic plan with the understanding that all items emanating from this plan that require academic governance oversight are returned to this body for appropriate deliberation and action."

Senator Roulet commented that many of the items in the ASAP 2012 document will require deans and chairs and department members to actually talk to each other across disciplines. On the subject of key performance indicators (KPIs), Senator Gillon remarked that we must reflect on the data we gather, to ensure that we are actually tracking what we think we are tracking.

Provost Masi then presented the Final Administrative Response to the Principal's Task Force on Diversity, Excellence and Community Engagement regarding the current project by the Office of the Provost, the Office of the V.-P. (RIR), and the Office of the Chief Information Officer to make available all faculty CVs in a **similar electronic format**. Provost Masi indicated that a draft will be made available for comments by members of the University community.

Senator Dinel asked under whose authority the family care initiative would operate. The Provost indicated that it would operate under Associate Provost Nathalie Cooke.

Principal Munroe-Blum indicated that she is preparing her response to the Open Forum on Free Expression and the report will be ready by November 23rd.

Dean Manfredi presented his report to Senate, and the floor was then opened for discussion. It was argued that the code of student conduct stick to broad principles. APC and Nominating committees reported on standard events.

Senate Meeting of November 14, 2012 - Prof. Andrew Hynes

In the Principal's absence, the meeting was chaired by Dean Sean Ferguson from the Faculty of Music. Following a resolution on the death of Professor Langleben Senate moved into closed session to approve several honorary-degree nominations presented by Professor Harpp.

On returning to open session, Vice Principal Rose Goldstein presented the Annual Report on Research Performance and Innovation for Senate's information. McGill has increased both its research funding and its ranking among our peer-group universities but the view is that there is still room for improvement, and plans are afoot to achieve this. Research support from government agencies accounts for nearly 75% of the total, suggesting there is a need to diversify our sources of support.

Vice-Principal Goldstein then presented the Strategic Research Plan (SRP) for endorsement by Senate. Concerns were expressed over the flexibility of the document,

in light of its use in applications to agencies like the Canadian Foundation for Innovation. The Vice-Principal stressed that it was a 'living document', and that the key areas listed in the document under the various research areas were only examples. Asked whether the document would be used to guide the allocation of resources, the Vice Principal informed Senate that meetings to discuss the latter had not yet taken place, but that the SRP would serve as an introduction to these meetings. The overall character of the SRP was endorsed by Senate.

Dean Chandra Madramootoo presented the Report of the Ad Hoc Committee on the Recording and Transmission of Senate Meetings, which recommends the introduction of live-streaming of Senate meetings to the McGill community on a trial basis in January. There was lively discussion of one proviso of this report, to the effect that recordings of the meetings would not be archived. An amendment removing this proviso was presented and partly discussed, before being pre-empted by a motion to table the motion so that the committee could assess the potential legal ramifications of such an amendment. Procedural confusion ensued. Ultimately, both the motion to table and the amendment were withdrawn when it became clear they would result in significant delay in implementation of the trial period. The Report was then approved by Senate.

Several reports were presented to Senate for information, with only brief summaries of their content, including the 441st Report of the Academic Policy Committee (Provost Anthony Masi), the Annual Report of the Senate Committee on Physical Development (Associate Vice-Principal Jim Nicell), the Annual Report of the Committee on Student Services and the Annual Report of the Committee on Enrolment and Student Affairs (Deputy Provost Morton Mendelson). A brief Report of the Senate Nominating Committee was presented by Provost Masi and approved by Senate.

Interim Dean Linda Jacobs Starkey presented the Annual Report of the Committee on Student Discipline. The report was presented for Senate's information, but it engendered spirited discussion, both because of a significant increase in non-academic incidents and because of an apparent perception by some Senators that penalties for violations of the code of student behaviour under Article 5 of the student code (which deals with Disruption) were being treated inequitably. Dean Starkey suggested the overall increase in non-academic incidents might result partly from an increase in the number of students in residence and partly from an initiative to encourage the reporting of incidents. On the second point, she noted that responsibility for the assessment of penalties rested with the Disciplinary Officers, not with the Office of the Dean of Students, but also indicated that she was confident Disciplinary Officers dealt with incidents on a case-by-case basis. The discussion was accompanied by some unruly behaviour from the non-Senate audience and several requests for 'Order' from the Chair.

The Report of the Board of Governors to Senate was presented by Professor Amir Raz. Dean Andrew Kirk drew attention to an item in this report that indicated Dean Grant, of the Faculty of Science, had delivered a presentation to the Board of Governors on the activities and initiatives underway at the Faculty of Law. His enquiry as to whether Dean Grant would in future be offering similar services for other faculties at McGill provided a welcome note of levity to conclude the meeting, which ended at 6:05.

- A member asked if the Dean had written to the Office of the Vice-Principal (Research and International Relations) reiterating the concerns expressed by members of the Faculty, that when applying for research grants, the research area in question should already have been mentioned in the Strategic Research Plan (SRP).
- Dean Grant said that he would support the interests of the Faculty in his dealings with the Vice-Principal (Research and International Relations).

Joint-Board Senate Meeting of November 27, 2012 - Prof. Jacques Hurtubise

Report on the Joint Board-Senate meeting, November 27th.

Following the tradition of arranging the discussions at these meetings around fairly uncontroversial subjects, this year's was held on the subject of Universal Design. For those members of the faculty for whom this term is somewhat mystifying, it refers to a set of mechanisms to ensure that there is access, both in the physical and intellectual sense, to learning for the widest variety of clientele.

The idea of Universal Design seems to have developed first amongst those who work with and for students with disabilities, the idea being that proper design makes the disability irrelevant. The concept has been extended to cover the whole student population; it focuses on the three axes of access, teaching and evaluation. For the latter two, in essence, universal design means multimodal teaching and evaluation.

After an initial presentation, some of which was rather confusing, the group split into nine different tables, which were to discuss the issues and come up with ideas. These were then reported to the whole group. Much of the discussion seemed to focus around universal design for teaching. It was pointed out by some that this is traditionally known as good teaching, and is often practised in small groups. Undergraduate research is another way of multimodal learning. Cost was underlined as a factor, and efforts were deployed to find some fairly easy and inexpensive ways of getting part ways to the goal. On the issue of simple physical access, there was uniform agreement on its desirability, accompanied by some quite frightening estimates of cost. Very little was said about the evaluation axis, apart from suggesting that the time allotted for exams should be made suitably long, so that time should be a factor for no one.

After the end of the meeting the sweaty brows of senators and board members were unfurrowed by suitable refreshments.

A member specified that a proposal had been made that three-hour exams should contain only two hours of course material, in order to accommodate slow writers. Furthermore, the Senate Steering Committee had decided that the January Senate meeting should be devoted to innovation in teaching at McGill. This would be organized by a small sub-committee.

(7) DEAN'S BUSINESS

Dean Grant said that there would be no reception after the current Faculty meeting because there will be a Science Christmas party on December 20, 2012, starting at 4 p.m. in Thomson House. Parents should bring toys for Santa to distribute to their children. He said it will be lots of fun with the children at the party.

(8) <u>MEMBERS' QUESTION PERIOD</u>

There were no members' questions.

(9) OTHER BUSINESS

Dean Grant said he hoped to see members at the Christmas party.

There being no further business, the meeting adjourned at 4:00 p.m.