

**FACULTY OF SCIENCE
Meeting of Faculty
Tuesday, November 4, 2008
Leacock Council Room - L232**

ATTENDANCE: As recorded in the Faculty Appendix Book.

DOCUMENTS: S-07-11, S-08-12

Dean Grant called the meeting to order at 3:05 p.m.

The following new professors gave short research presentations prior to the meeting:

Prof. Gary Brouhard, Department of Biology
Prof. Margaret Kalacska, Department of Geography

Dean Grant thanked the presenters and welcomed them to the Faculty of Science.

(1) ADOPTION OF AGENDA

Additional item:

The first two Fessenden Professorships will be announced under Item #5, Dean's Business.

Prof. Moore **moved**, seconded by Prof. Vangheluwe, that the amended Agenda be adopted.

The motion carried.

(2) MINUTES OF OCTOBER 14, 2008 S-08-11

Prof. Barrette **moved**, seconded by Prof. Yau, 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-08-12

The Academic Committee approved the following on Tuesday, October 28, 2008:

SECTION A: NEW PROGRAMS

None

SECTION B: MAJOR PROGRAM CHANGES

(1) Biology/Anthropology/Geography/NRSC AC-08-28
- Africa Field Study Semester*

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

The motion carried.

**Courses relevant to this program are described in Documents AC-08-25, 26, 27, 29, below.*

(2) McGill School of Environment

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|--|-----------------|
| - Water Environments and Ecosystems – Biological | AC-08-37 |
| - Water Environments and Ecosystems – Physical | AC-08-38 |

Associate Dean Hendren **moved**, seconded by Mr. Barry, that the above program changes be approved.

The motion carried.

SECTION C: NEW COURSES

(1) Mathematics & Statistics

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|----------|---|-----------------|
| MATH 638 | Partial Differential Equns
4 credits | AC-08-12 |
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Associate Dean Hendren **moved**, seconded by Prof. Wolfson, that the course be adopted.

The motion carried.

(2) Biology

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|----------|---|-----------------|
| BIOL 316 | Eukaryotic Cell Biology II
3 credits | AC-08-21 |
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Associate Dean Hendren **moved**, seconded by Prof. Fussman, that the course be adopted.

The motion carried.

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|----------|---|-----------------|
| BIOL 418 | Freshwater Invertebrate Ecol
3 credits | AC-08-23 |
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Associate Dean Hendren **moved**, seconded by Prof. Fussman, that the course be adopted.

The motion carried.

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| BIOL 515 | Advances in Aquatic Ecology
3 credits | AC-08-24 |
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Associate Dean Hendren **moved**, seconded by Prof. Fussman, that the course be adopted.

The motion carried.

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|---------------------|---|-----------------|
| BIOL 451/NRSC 451** | Res:Ecol&Development in Africa
3 credits | AC-08-25 |
|---------------------|---|-----------------|

Associate Dean Hendren **moved**, seconded by Prof. Franklin, that the proposed course, BIOL 451 be adopted.

The motion carried.

REDM 405/ NRSC 405**(Revs)	Natural History of East Africa 3 credits	AC-08-29
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Associate Dean Hendren **moved**, seconded by Prof. Stix, that the proposed course, REDM 405 be adopted.

The motion carried.

***NRSC 451 and NRSC 405 – These courses are presented for information only.*

SECTION D: MAJOR COURSE CHANGES

Biology

BIOL 310	Biodiversity and Ecosystems Changes in title, description and prerequisites 3 credits	AC-08-20
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Associate Dean Hendren **moved**, seconded by Prof. Fussman, that the changes be approved.

The motion carried.

BIOL 342	Marine Biology Changes in course number [from BIOL 442], course activities and restrictions 3 credits	AC-08-22
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Associate Dean Hendren **moved**, seconded by Prof. Fussman, that the changes be approved.

The motion carried.

Associate Dean Hendren encouraged members to review their courses from time to time to ensure that the level is appropriate.

BIOL 428	Biological Diversity in Africa Change in number [from 328], activities, prerequisites, corequisites, restrictions 3 credits	AC-08-26
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Associate Dean Hendren **moved**, seconded by Prof. Stix, that the changes be approved.

The motion carried.

BIOL 429	East African Ecology Change in number [from 329], activities, description, corequisites, restrictions 3 credits	AC-08-27
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Associate Dean Hendren **moved**, seconded by Prof. Dudek, that the changes be approved.

The motion carried.

SECTION E: MINOR COURSE CHANGES (For Information Only)

- Report on Minor Course Changes

AC-08-18

Associate Dean Hendren briefly described the Report on Minor Course Changes.

SECTION F: MINOR PROGRAM CHANGES (For Information Only)

- Report on Minor Program Changes

AC-08-P2

Associate Dean Hendren highlighted the changes in the Report on Minor Program Changes.

SECTION G: OTHER (For Information Only)

- New DEC in Computer Science and Mathematics

AC-08-17

304.1 Associate Dean Hendren said that with the introduction of the new DEC in Computer Science and Mathematics, U1 students with this DEC would need additional freshman courses for certain programs. She had previously asked units for a listing of these freshman courses. The results were summarized in the table in Document AC-08-17. Corresponding tables would be required for the DEC intégré and the French Baccalaureate.

(5) DEAN'S BUSINESS

(a)(i) Principal's Awards for Administrative and Support Staff

- C Category: Ms. Giovanna LoCasio, Department of Psychology, Graduate Program Coordinator
- T Category: Mr. Mario Della Neve, Department of Physics, Course Technician

305.1 Dean Grant said that the Principal's Awards for Administrative and Support Staff had been recently announced. The Faculty of Science had garnered two of the awards. While the award winners would be recognized at Convocation on November 14, 2008, Dean Grant said that the Faculty would also like to acknowledge the contributions of these valuable staff members by providing each with a small gift as a token of the Faculty's appreciation.

305.2 Ms. LoCasio thanked the award committee, Dean Grant, Prof. Keith Franklin, Ms. Patricia Tuck, and students and colleagues in the Department of Psychology. She said she was touched by the honour of receiving the award.

305.3 Mr. Della Neve thanked everyone involved with the award, and said that he was deeply honoured.

305.4 On behalf of the Faculty, Dean Grant congratulated Ms. LoCasio and Mr. Della Neve for their valuable accomplishments.

(a)(ii) Fessenden Professorships

305.5 Dean Grant announced that the first two Fessenden Professorships for Science Innovation were being awarded to Professor Nicolas Moitessier, Department of Chemistry, and Professor Paul Wiseman, Departments of Chemistry and Physics. The Fessenden Professorships would serve to connect research to practical applications.

This was the first time such professorships involving a Science Faculty had been set up in North America. The selection process involved the Faculty's new Commercialization Advisory Board. The Blachford family was intimately involved with the Fessenden Professorships and their funding, as was Richard Tomlinson.

(b) What Would be the Ideal Enrolment for Undergraduate Students?

305.6 Faculty moved into the Committee of the Whole, with Associate Dean Grütter as Chair.

305.7 Associate Dean Grütter said that some factors relevant to the question were laboratory space, buildings, and hiring.

305.8 Some of the points raised were:

- That the issue was not just the number of undergraduate students, but also where they came from, e.g., Québec versus Ontario.
- The issue of whether there was an ideal student population, i.e., an ideal ratio among students pursuing different disciplines.
- How should decisions relating to retirements of professors be made in relation to undergraduate enrolment?
- That in the next ten years, there would be a drop in the number of students coming from CEGEPs.
- That for some units, such as the Department of Mathematics & Statistics, it would be easier to increase enrolment, since such units do not require laboratory space.
- That currently, as opposed to thirty years previously, there was a tremendous interest in psychology, so that it was important to attempt to think about all issues simultaneously
- That one particular problem was not so much the total number of students, but rather that there were large blocks of students concentrated in key courses.
- That infrastructure and technical support were important issues, and the needs for each should be defined.
- That more staff and spaces were needed, and that to maintain the current number of students would require extensive renovations.
- That the freshman retention rate was high, above 90%.
- That beginning the following year, there would be two pools of entering students — those in life sciences and those in physical and computational sciences.
- That as the university became more research intensive, it would be necessary to have smaller classes so that more attention could be paid to individual students.
- That ideally class sizes in U3 would be relatively small to allow for greater student-professor contact.

305.9 Dean Grant thanked everyone for their input.

(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/minutes/>.

- Senate Meeting of September 17, 2008 - Prof. K. Franklin

After the opening remarks by the Principal in the Chair the first business was the reading of a resolution on the death of Jaqueline Kirk by Professor Helene Perrault, Dean of the Faculty of Education. Dr. Kirk was an adjunct professor in the Department of Integrated Studies in Education and a humanitarian aid worker with the International Rescue

Committee. She was killed in an ambush in Afghanistan on August 13th. Senate offered its condolences to her husband, Dr. Andrew Kirk of the Faculty of Engineering, her parent and her two sisters. A memorial fund has been established in her name at McGill.

In question period Professor Moore asked when TAs who had completed their tasks before the TA strike began on April 7 could expect to be paid. The Provost responded that the University had paid TAs what was owed to them prior to the declaration of the strike. Because no back to work protocol was agreed upon there are outstanding issues related to the interpretation of the previous collective agreement before the Labour Board which will not be heard till February 2009. A second question by Ms. Turner asked what was the consultation process for the creation of the Guidelines for Booking Occasional Events and why was Senate not involved. The Deputy Provost took the question and outlined the steps that led to new regulations on the approval and accommodation of outside events being passed by Senate in 2004 and 2005. He pointed out that the Guidelines are administrative policies, not regulations, and that Senate recognized this distinction. The guidelines are meant to encourage use of University space but the high demand for a limited amount of space may restrict repeated bookings, and questions of security and liability prohibit overnight events.

The next business was the Principal's report. The Principal's presentation reviewed the many achievements of the past year in student life and learning, research and scholarship, graduate studies, international partnerships and outreach to the public. She then went on to discuss the needs and planning for infrastructure and funding to sustain the progress of the University. Following the presentation there were questions from the floor. Two questions that may be of particular interest to Faculty of science concerned deferred maintenance and the impact of the stock market collapse. Mr. Hobbins asked why the deferred maintenance bill had grown from \$250M to \$600M last year and Mr. Gulamhussein asked what plan was in place to address deferred maintenance. It seems that the increase in the estimated cost was the outcome of full studies of maintenance needs by McGill and CREPUQ which also provided a priority list. The university is currently working on \$100 M projects to be done over the next 3 years. In response to Professor Johnsson's question about stock market turmoil and McGill's financial situation the Principal said that while the economic situation would have a destabilizing effect McGill has a very conservative investment policy which is protecting us in depressed markets.

Senate discussed the Policy on Individual Conflict of Interest (D08-03) as a Committee of the Whole with the Principal in the Chair and Professor Foster was granted speaking rights to answer questions. There was a lengthy discussion of the Policy, the details of which are not intelligible without the document. However the import of several questions was that the Policy seemed to significantly broaden the concept of conflict of interest and the conflict of commitment to the extent that Professor Saroyan wondered whether there were any situations which could be construed as not being in conflict of interest. Professor Johnsson thought that the document appeared to be micromanagement and wondered if it could perhaps be reconstituted in the form of some general principles. Professor Robaire praised the goals but thought that the wording of the policy was flawed and Professor Fried pointed out that the process of documentation called for by the Policy would be burden. In replies Professor Foster agreed that there were problems with the drafting of the policy and that some articles were ambiguous or too wide. He assured senate that intent was not to micromanage and that the working group would consider the comments from Senate in revising the document.

After some other routine business Senate adjourned at 5:20 pm.

- Senate Meeting of October 15, 2008 - Prof. K. GowriSankaran

306.1

Prof. GowriSankaran said that the following report was a short version for inclusion in the Minutes, and that he had submitted a longer report which would be available from Josie D'Amico.

In the first section of the meeting the Principal gave her remarks and in this case it was almost like a 'state of the union address'. She touched upon a number of issues the text of her complete remarks can be found at the Senate website or through Josie D'Amico. I will list here some of the important issues she discussed in a bullet format.

- The recent financial/market turmoil and consequence to the Universities in Canada and in particular McGill. In particular how it could impact our recruitment and retention.
- The recent placing of McGill 'in the top 25 of the Times Higher Education Rankings of World Universities', the highest of any Canadian University and the second highest ranking of North American Public funded institutions.
- The opening of the new Life Sciences Complex in September (cohosted by our Dean and Rich Levin the Dean of Medicine)
- The forthcoming legislation of the Minister of Education (Quebec) relating to University governance. CREPUQ is trying to lobby the Minister not to overreact and bring in 'draconian regulations'.
- Update on Campaign McGill (you may recall that a few months ago our University launched a campaign to raise \$750 million. The amount pledged/collected stands at \$440 million as of this date.
- Encouraged the staff members to donate generously to the Centraid campaign
- Update on the ongoing negotiations with MUNACA: on the request of MUNACA a conciliator (Dr. Robert Dupuis) has been appointed by the Ministry of Labour.
- She then a partial list of kudos achieved by members of our community. This in particular included the latest inductees of the Royal Society of Canada as fellows (the list includes three from our Faculty: Vicki Kaspi of Physics, Pengfei Guan from my department and Al Mucci of the EPS). She also congratulated Willy Jones of the EPS (who received the Bancroft Award) and Henri Darmon of my department (the John L. Synge Award) both given out by the Royal Society of Canada.
- Responding to a question by Ian Butler (Chemistry) she anticipated no problems with this round of CFI funding.

In the second section of the meeting there was a question submitted by the student senator Ms. Bishop on academic integrity. The question (in two parts) wanted an answer to the questions i) are there plans to review the current policy and application on 'academic integrity and the second part ii) as to how McGill define an intent to deceive in any question of academic integrity.

The Chair requested the Dean of Students, Jean Everett to respond. The response was very long and basically stated that this is an issue which will be visited by the appropriate committee in the course of next few months.

In Part B of the meeting Mr Albert Caponi presented the 'University Financial Report' concerning last year. There were routine motions from the Senate Nominating Committee and the Academic Policy Committee. Also presented for information were Annual reports from Committee on Student Affairs and Committee on Student Services.

306.2

Prof. GowriSankaran encouraged Faculty members to give feedback to the Science Senators.

- Senate Meeting of October 27, 2008 - Prof. P. Grütter

The 2008 joint meeting of McGill's Board of Governors and Senate took place on Monday October 27, at 6 p.m. at the Faculty Club. All Governors and Senators were encouraged to participate in a dynamic exchange that focused on the issue of intellectual property rights. Details and background information can be found at <http://www.mcgill.ca/senate/joint-board/>

Intellectual property rights can be defined very broadly as rights granted to creators and/or owners of works resulting from human intellectual creativity. These works can be in the industrial, scientific, literary or artistic domains. Inventions, manuscripts and software are some examples of intellectual property which generate IPR. The legal protection of IPR is effected by formal mechanisms such as copyright, patent or trademark. The motivation for this topic is the importance to articulate clear guidelines regarding intellectual property rights in the university context:

- to assist the university in fulfilling its mission
- to inform the university's response to external pressures
- to establish clear procedures for the transfer of useful results in research and innovation
- to give clear indication of the expected contribution of IPR to the university (Financial returns? Indicator of competitive edge? Social impact?)

(7) MEMBERS' QUESTION PERIOD

There were no members' questions.

(8) OTHER BUSINESS

There being no further business, the meeting adjourned at 4:10 p.m.