FACULTY OF SCIENCE
Meeting of Faculty
Tuesday, May 23, 2006
Redpath Museum Auditorium

ATTENDANCE: As recorded in the Faculty Appendix Book.


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

(1) ADOPTION OF AGENDA

- New Scholarship, Document S-05-45, to be considered as Item # 2(c).
- Committee of the Whole Discussion, Item #7, to be postponed to a future meeting.
- Report on Freshman Interest Groups to be considered under Item #12, Other Business.
- Science Representative on the Council of Graduate and Postdoctoral Studies to be considered under Item #12, Other Business.

Prof. Wolfson moved, seconded by Prof. Whitesides, that the amended Agenda be adopted.

The motion carried.

(2) REPORTS OF COMMITTEES

a) Leo Yaffe Award Committee

902.1 Prof. Anthony Williams-Jones, Chair of the Leo Yaffe Award and Principal's Prizes Committee, listed the membership of the committee.

Chair: Prof. Anthony Williams-Jones (Earth & Planetary Sciences)
Prof. Parisa Ariya (Atmospheric & Oceanic Sciences/Chemistry)
Prof. Thomas Bureau (Biology)
Prof. Scott Bohle (Chemistry)
Prof. Kaleem Siddiqi (Computer Science)
Prof. Oliver Coomes (Geography)
Prof. Henri Darmon (Mathematics & Statistics)
Prof. Richard Harris (Physics)
Prof. Peter Swain (Physiology)

Prof. Richard Koestner (Psychology) stepped down from the committee because of his nomination for the Principal's Prize for Excellence in Teaching

Student Representatives:
Ms. Jingxu Zhai (Biochemistry – U1)
Ms. Claire Louise Young (Psychology – U1)

902.2 The Nominees for the Leo Yaffe Teaching Award were:

Prof. Christopher Barrett Chemistry
Prof. David Green Redpath Museum
Prof. Laurie Hendren Computer Science
Prof. Niky Kamran Mathematics & Statistics
Prof. Williams-Jones said that the task of choosing among the eight highly qualified nominees had been daunting. The committee's discussions and deliberations had gone on for quite some time, but eventually unanimous agreement had been reached.

Prof. Williams-Jones announced that the winner of the Leo Yaffe Teaching Award was Professor Laurie Hendren, School of Computer Science.

Prof. Williams-Jones read the Leo Yaffe Citation for Prof. Hendren:

“The Leo Yaffe Award for Excellence in teaching honours professors who make an outstanding and long-lasting impact on undergraduate education in the Faculty of Science. Laurie Hendren is such a professor.

"Laurie joined the School of Computer Science in 1990 with a freshly minted Ph.D. from Cornell University, and was immediately thrown into the “deep end” having to teach the “Introduction to Computing” courses, which had been problematic for some time. Not only did she turn these courses around, she revolutionized them, in the process receiving an extraordinary evaluation from students in her first year at McGill of 4.68 on 5 for “Introduction to Computing 2” (COMP 203). In the intervening years she has consistently received high evaluations for these courses and in 2000 received an astonishing 4.81 on 5 for “Introduction to Computing 1”, the highest score ever received by a professor in the School of Computer Science for a 200 level course. Professor Hendren’s teaching contributions have been equally outstanding at the senior undergraduate and graduate level. For example, her elective course “Compiler Design” (COMP 520), which is notorious for being difficult and time-consuming, attracts large numbers of students and commonly receives scores above 4.5 on 5 in student evaluations. As one student noted “I worked harder in Compiler Design than in any other course…but I learned more about designing and building real operational software than in any other class at McGill.” A course modeled after her COMP 520 is now taught in seven other North American universities!

"In addition to being a superb instructor, Professor Hendren is also a remarkable mentor of students. She has the ability to change lives. As one of her former students observed “At this time, I was studying French Literature….because of my positive experience in her class, I changed into the computer science program.” Another student observed “I was a commerce student at McGill until I took my first computer course” Several years later, he was teaching “Introduction to Computing” with Professor Hendren! Professor Hendren’s contributions are not restricted to undergraduate teaching. No fewer than 35 graduate students have received M.Sc’s or Ph.D.’s under her supervision. As her former Chair notes, she has been the “pillar of the graduate program and is a research star”

"In summary, Laurie Hendren is a teacher-scholar of the very highest calibre and a most worthy recipient of the Leo Yaffe award for excellence in teaching."

On behalf of the Faculty of Science, Dean Grant congratulated Associate Dean Hendren.

Associate Dean Hendren said that all of the nominees that Prof. Williams-Jones had mentioned deserved the Leo Yaffe Award. She said that she had previously sat on the Leo Yaffe Award Committee, and that it was indeed difficult to distinguish between the outstanding qualities of the nominees. She said that all the nominees deserved congratulations.
Associate Dean Hendren mentioned that both she and her husband, Prof. Prakash Panangaden, had now won the Leo Yaffe Award, and she said that they were the first husband-and-wife team to do so. She added that in her experience research and teaching can go together.

Associate Dean Hendren thanked the School of Computer Science for putting together her nomination dossier.

Prof. Williams-Jones thanked the committee members for their excellent work on the Leo Yaffe Award and Principal's Prizes Committee, and thanked Josie D’Amico for her hard organizational work for the committee.

Dean Grant thanked Prof. Williams-Jones for his efforts and professionalism in chairing the Leo Yaffe Award Committee.

b) Scholarships Committee S-05-36

Prof. Henry Leighton, Chair of the Faculty of Science Scholarships Committee, presented the report of the committee. He mentioned that Mr. Samuli Heilala, an Honours student in the School of Computer Science, had won the Governor-General's Silver Medal.

Associate Dean Leighton moved, seconded by Prof. Gowri Sankaran, that the Scholarship Report be approved.

The motion carried.

Associate Dean Leighton thanked Josie D’Amico for her work in putting together the Scholarships Report.

c) New Award – Science Class of 1965 Scholarship S-05-45

Estimated Value: $2500

Associate Dean Leighton moved, seconded by Prof. Gowri Sankaran, that the Science Class of 1965 Scholarship be approved.

The motion carried.

(3) CANDIDATES FOR DEGREES

a) Bachelor of Arts and Science S-05-37

Associate Dean Leighton moved, seconded by Prof. Mysak, that the above degree list be recommended to the Senate Steering Committee for the Bachelor of Arts and Science degree.

The motion carried.

Associate Dean Leighton said that the CGPA cutoff for the Dean’s Honour List for the B.A. & Sc. was 3.79.

b) Bachelor of Science S-05-38

Associate Dean Leighton mentioned that the number of graduates had been steadily increasing over the last several years, and that currently there were 27 more graduates

Associate Dean Leighton moved, seconded by Ms. Filipski, that the above candidates be recommended to the Senate Steering Committee for the Bachelor of Science degree.

The motion carried.

903.3

The CGPA cutoff for the Dean's Honour List for the B.Sc. was 3.87.

c) Diploma in Environment S-05-39

Associate Dean Leighton moved, seconded by Prof. Mucci, that the above candidates be recommended to the Senate Steering Committee for the Diploma in Environment.

The motion carried.

d) Diploma in Meteorology S-05-40

Associate Dean Leighton moved, seconded by Prof. Yau, that the above candidate be recommended to the Senate Steering Committee for the Diploma in Environment.

The motion carried.

Prof. GowriSankaran further moved, seconded by Prof. Harpp, that the Dean be given discretionary power to make such changes in the degree list as would be necessary to prevent injustice.

The motion carried.

903.4

Associate Dean Leighton thanked the unit advisors and the Student Affairs Office for their outstanding work in preparing the degree list.

(4) MINUTES OF APRIL 11, 2006 S-05-35

Prof. Barrett moved, seconded by Prof. Moore, that the Minutes be approved.

The motion carried.

(5) BUSINESS ARISING FROM THE MINUTES

There was no business arising from the Minutes.

(6) REPORTS OF COMMITTEES (Continued)

a) Committee on Student Standing (CSS) S-05-41

906.1

Due to lack of business, there was no CSS Report.

b) Academic Committee S-05-42

The Academic Committee approved the following on February 28, April 25 and May 9, 2006:

SECTION A: NEW PROGRAMS
Associate Dean Hendren described the above proposal, and the various departmental options listed below.

**Atmospheric & Oceanic Sciences**
- M.Sc.; Atmospheric & Oceanic Sciences; Environment Option

Associate Dean Hendren moved, seconded by Prof. Yau, that the above Option be adopted.

The motion carried.

**Biology**
- M.Sc.; Biology; Environment Option
- Ph.D.; Biology; Environment Option

Associate Dean Hendren moved, seconded by Prof. Green, that the above Options be adopted.

The motion carried.

**Earth & Planetary Sciences**
- M.Sc.; Earth & Planetary Sciences; Environment Option
- Ph.D.; Earth & Planetary Sciences; Environment Option

Associate Dean Hendren moved, seconded by Prof. Mucci, that the above Options be adopted.

The motion carried.

**Geography**
- M.Sc.; Geography; Environment Option
- Ph.D.; Geography; Environment Option

Associate Dean Hendren moved, seconded by Prof. Ewing, that the above Options be adopted.

The motion carried.

**SECTION B: MAJOR PROGRAM CHANGES**

(1) **B.A. & Sc.**
- Freshman Program

Associate Dean Hendren said that the changes described in Document AC-05-108 were designed to improve the B.A. & Sc. Freshman Program.
In reply to a member, Associate Dean Hendren said that proposals could be made to the B.A. & Sc. Program Administration Committee to add areas to those already listed in the Social Science category of Arts courses.

Associate Dean Hendren moved, seconded by Prof. de Takacsy, that the revisions to the B.A. & Sc. Freshman Program be approved.

The motion carried.

Dean Grant thanked Associate Dean Hendren for the work involved in revising the B.A. & Sc. Freshman Program.

(2) CHEMISTRY

Associate Dean Hendren described the proposed program changes for the Department of Chemistry.

Faculty Program in Chemistry
Major in Chemistry
Major in Chemistry with Bio-organic Option
Major in Chemistry with Environmental Chemistry Option
Major in Chemistry with Materials Option
Honours in Chemistry
Honours in Chemistry with Bio-organic Option
Honours in Chemistry with Environmental Chemistry Option
Honours in Chemistry with Materials Option

Associate Dean Hendren moved, seconded by Prof. Ronis, that the above program changes be approved.

The motion carried.

Joint Honours in Physics and Chemistry

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

The motion carried.

Faculty Program in Mathematics, Chemistry and Physics
Faculty Program in Chemistry and Mathematics

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

The motion carried.

SECTION C: NEW COURSES

(1) McGill School of Environment

Associate Dean Hendren introduced the new Environment courses.

ENVR 622 Sustainable Landscapes 3 credits
Associate Dean Hendren moved, seconded by Prof. Ewing, that the above courses be adopted.

The motion carried.

 ENVR 650  Environmental Seminar 1  AC-05-86
          1 credit
 ENVR 651  Environmental Seminar 2  AC-05-87
          1 credit
 ENVR 652  Environmental Seminar 3  AC-05-88
          1 credit

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

The motion carried.

 ENVR 631  Civilization and Environment 2  AC-05-89
          3 credits

Associate Dean Hendren moved, seconded by Prof. Burns, that the above course be adopted.

The motion carried.

(2)  PHYSICS

 PHYS 228  Energy and the Environment  AC-05-94
          3 credits

906.8  Associate Dean Hendren mentioned that the above course should be interesting for students in the Faculty of Science.

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

The motion carried.

 PHYS 641  Observ Tech of Mod Astrophys  AC-05-114
          3 credits
 PHYS 642  Radiative Process in Astrophys  AC-05-115
          3 credits
 PHYS 643  Astrophysical Fluids  AC-05-116
          3 credits
 PHYS 644  Galaxies and Cosmology  AC-05-117
          3 credits
Associate Dean Hendren moved, seconded by Prof. Gale, that the above courses be adopted.

The motion carried.

(3) GEOGRAPHY

GEOG 555  Ecological Restoration  AC-05-95
3 credits

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

The motion carried.

GEOG 697  Thesis Research (Env’t Option)  AC-05-96
18 credits

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

The motion carried.

- GEOGRAPHY/NATURAL RESOURCE SCIENCES

GEOG 221/NRSC 221 Environment and Health  AC-05-28/28A
3 credits

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

The motion carried.

(4) COMPUTER SCIENCE

COMP 230  Logic and Computability  AC-05-97
3 credits

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

The motion carried.

COMP 521  Modern Computer Games  AC-05-98
4 credits

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

The motion carried.

(5) ATMOSPHERIC & OCEANIC SCIENCES

ATOC 551  Selected Topics 1  AC-05-102
3 credits

ATOC 552  Selected Topics 2  AC-05-103
3 credits

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

The motion carried.
Associate Dean Hendren moved, seconded by Prof. Yau, that the above courses be adopted.

The motion carried.

(6) CHEMISTRY

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<td>Intro Phys Chem 1</td>
<td>2</td>
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<tr>
<td>CHEM 243</td>
<td>Intro Phys Chem 2</td>
<td>2</td>
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<td>CHEM 253</td>
<td>Intro Phys Chem 1 Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 263</td>
<td>Intro Phys Chem 2 Lab</td>
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</table>

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

The motion carried.

SECTION D: MAJOR COURSE CHANGES

BIOLOGY

- Change in number [from 534]

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<tr>
<td>BIOL 434</td>
<td>Theoretical Ecology</td>
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Associate Dean Hendren moved, seconded by Prof. Green, that the change be approved.

The motion carried.

SECTION E: MINOR COURSE CHANGES (For Information Only)

(1) Report on Minor Course Changes
(2) Report on Minor Course Changes

SECTION F: MINOR PROGRAM CHANGES (For Information Only)

Report on Minor Program Changes

906.9 Associate Dean Hendren briefly described the above minor course and program changes.

SECTION G: OTHER (For Approval)

B.A. & Sc.

- High School Requirements for Admission
Associate Dean Hendren said that the high school requirements for admission to the B.A. & Sc. were being changed to bring them in line with the high school requirements for admission to the B.Sc.

Associate Dean Hendren moved, seconded by Prof. de Takacsy, that the changes described in Document # AC-05-109 be approved.

The motion carried.

Associate Dean Hendren thanked the members of the Academic Committee for their efforts. She thanked Josie D’Amico for organizing the work of the committee.

(7) DEAN’S BUSINESS

- Role of Research Papers versus Patents
  Discussion: Committee of the Whole
  Chair: Associate Dean (Research) David Burns

THE ABOVE ITEM WAS POSTPONED TO A FUTURE MEETING.

(8) 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 January 11, 2006 - Prof. Nigel Roulet

Report to be presented at a future meeting.

Senate Meeting of April 19, 2006 - Prof. K. Gowri Sankaran

The meeting commenced with a resolution on the death of Emeritus Professor Philip R. Wallace of the Department of Physics. This resolution was read by our Dean Martin Grant and was passed unanimously.

The meeting also passed unanimously a resolution on the death of Professor Andre Robert Laplante of the Department of Mining, Metals and Materials.

Regular Steering Committee Report was followed by comments of the Chair. The Principal started her remarks by offering congratulations and cooperation to Professor Stephen Toope (of our Law Faculty) who has just been named the new President of UBC.

Among her other comments were the ‘good news’ that the Gouvernement du Quebec has agreed to accelerate the paydown of the ‘ajustement McGill’ (that is the ‘step motherly treatment of Operating Grant allocation!’). She also brought to the attention of Senators various accolades gotten by members of McGill community (students, staff etc).

The second part of the meeting started with a question from Mr. Matthews (a student Senator) regarding ‘Lesson fees at the Schulich School of Music’ (based on unconfirmed information that Lesson fees for individual instrument instruction are to go up considerably). At the request of the Provost Masi, Dean Don McLean responded by affirming that the Administration, both Central and Faculty, remains sensitive to the concerns raised and will proceed with caution on possible solutions. Noting that the matter is still under discussion, the Dean indicated that he expects to work with his student population and the Administration to achieve an appropriate solution.
This was followed by a question regarding possible elimination/change to a very popular undergraduate course, MGCR 360: *Special Context in Business*, by the student Senator Mr. Campeau. On the request of Provost Masi, the Dean Peter Todd of the Faculty responded with a fairly long response. In short he indicated that ‘the reasons for the changes such as those contemplated for MGCR 360 are part of a broader effort within the Faculty and across the University to ensure that we are using our instructional and faculty resources in the best possible way to meet the needs of students within the context of the resource constraints that we face at the University’.

This was followed by a question of Senator Professor Pare on the anticipated response from the Provost regarding “reappointment procedures of Assistant Professors on Tenure track”. Senator Pare reminded the Provost that the latter had promised to report to Senate on such reappointment procedures across the University.

Responding to this question the Provost stated that such a review has not yet been completed and hopes will be completed during the summer months. He expressed his hope that this will be brought to Senate in the fall. He further clarified that the existing standards have not changed but the work underway is aiming at a standardized view of reappointment procedures.

Again responding to another question of Professor Pare regarding “a report on non-tenure track academic personnel”, the Provost stated that the review is not yet complete and that he hopes to bring it to Senate later in the year.

On a supplementary question, Professor Michael Smith asked ‘how the Administration, and in particular the Secretary-General track issues arising in Senate for the purpose of ensuring accountability to questions raised. On a request from the Principal respond, Ms. Johanne Pelletier, the Secretary-General, explained the procedures that she has put in place in this regard.

In Part B of the meeting, there were routine reports from the APPC, the Nominating Committee of Senate and 2005-06 Annual Report of the Committee on Sabbatical leaves. The meeting also moved into a confidential session to approve a report of the Honorary Degrees and Convocations Committee. The Dean of Students presented a memorandum concerning Student Services Fee Schedule as well as Athletic Fees for the information of Senate. I would like the members to note that this is the first time the student fees have been explicitly split in this format. Lastly, the Provost presented a memorandum on the Appointment of assessors under the Policy on Harassment, Sexual Harassment and Discrimination Prohibited by Law. The following are the members of the Staff approved by Senate: Patricia Kirkpatrick (Religious Studies), David Lewis (Natural Resources Sciences), Glyne Pigott (Linguistics), Gloria Tannenbaum (Pediatrics) (Academic) and Adam Finkelstein (IMS), Kathryn Peterson (Biology), Mark Huffstickler (NCS) (Admin. and Support Staff).

908.1

Prof. GowriSankaran added that the Science Senators were representatives of the Faculty of Science on Senate, and were able to raise issues of concern and propose motions at Senate meetings. He emphasized that the Science Senators were at the service of the Faculty of Science.

908.2

Dean Grant thanked Prof. GowriSankaran.

**Senate Meeting of May 3, 2006 - Prof. D. Harpp**

**Update on Daycare Centres**: Professor Hurtubise (Interim Deputy Provost) presented an update on Daycare Centres and responded to questions and comments.

The Academic Personnel Office estimates that approximately 20 of the 100 + faculty...
members hired each year require childcare services. The APO is making a brochure designed to educate incoming staff about the Quebec Daycare System.

There are limits on the number of funded spaces in the downtown core, dictated by rules that demand that daycare be provided near to the family residence rather than the workplace.

Hurtubise added that other Canadian universities also are having difficulties in managing access to childcare spaces, noting that comparatively McGill has 243 spaces, the University of Montreal has 80, Concordia 100, UQAM 125, and Toronto 270 spaces.

There were at least 5 questions about details of the day-care situation and each answer was “worthy of consideration” and “would be taken under consideration”.

**Update on the Status of the Master Plan:** The Vice-Principal (Administration and Finance) presented an update on the status of progress with the Campuses Master Plan exercise indicating that the work on the Task Force continues and there is expected to be a discussion draft available in the fall.

**Update on Budget:** The Provost and the Vice-Principal Finance, will bring a presentation to Senate in the fall of the year. There will be a more detailed discussion in the winter session, and a presentation of the actual budget in the spring.

**Library Staff:** There were questions associated with these tenure regulations that are under intensive discussion.

Provost Masi indicated that a Committee on the Librarian Regulations was convened and met at least ten times between September 2005 and the end of January 2006. He explained that the Committee considered many aspects of the Librarian Regulations, but that they decided to focus on Tenure. Provost Masi indicated that the function of Senate was not to debate employment regulations that are under the authority of the Board of Governors.

**Research Performance:** The Vice-Principal Research Denis Therien presented a Report on Research Performance and responded to questions and comments (comparative data with other institutions in the G10) concerning research performance and funding.

**Ombudsperson for Students:** Professor Miller presented the 18th Annual Report of the Ombudsperson for Students and responded to questions and comments. This position is not full-time but it was argued it should be.

**Scholarships and Student Aid:** The Annual Report of the Scholarships and Student Aid Committee was received and various questions were asked of Professor Mendelson. He indicated that future reports would reveal the details associated with the number of undergraduate students receiving scholarships, loans and bursaries. He explained that in general that McGill and Queens University have the lowest proceeds for scholarships, but that scholarship awards were among the high priorities of McGill’s capital campaign.

**Proposed Calendar for 2007-2008:** The Calendar of Dates 2007-2008 was approved including another switch of class days to even out the schedule.

The meeting ended at 4:45 pm.

Prof. Mucci said that he would be chairing the Ad hoc Senate Committee on Ancillary Services, and that any complaints or feedback would be welcome.
909.1 Dean Grant said that the following new Science Senators had been elected by acclamation:

Prof. D. Burns (Chemistry)
Prof. D. Harpp (Chemistry)
Prof. T. Moore (Geography)
Prof. D. Ryan (Physics)
Prof. S. Whitesides (Computer Science)

909.2 The terms of the new Senators will end on August 31, 2009.

909.3 Continuing Faculty representatives on Senate, and remaining years to serve, are:

Prof. R. Chase (Biology) - two years
Prof. K. GowriSankaran (Mathematics & Statistics) - two years
Prof. C. Lin (Atmospheric & Oceanic Sciences) - one year
Prof. N. Roulet (Geography) - two years

912.1 Associate Dean Leighton said that FIGs involved meetings of small groups of students with faculty members and upper-year students. Much of the work in setting up FIGs had been done by the SUS. FIGs had been carried out as a pilot project during the winter term, and had been a tremendous success. The program would be continued in the next academic year, and would be expanded to include more groups. Associate Dean Leighton read out some enthusiastic comments from students about the program.

912.2 Associate Dean Leighton encouraged members to participate in FIGs, and to recommend participation to their colleagues.

912.3 Dean Grant thanked Associate Dean Leighton for the fantastic work he had done on FIGs. He also thanked the FIGs leaders for the work they had done. Dean Grant said that he expected other faculties would follow Science's lead on FIGs.

912.4 Dean Grant said that Prof. David Burns had agreed to continue to serve as the Science Representative on the CGPS for a further three years.

912.5 Dean Grant thanked members for their support over the course of the year.

There being no further business, the meeting adjourned at 4:30 p.m.