

**FACULTY OF SCIENCE
Meeting of Faculty
Tuesday, October 16, 2012
Leacock Council Room – L232**

ATTENDANCE: As recorded in the Faculty Appendix Book.

DOCUMENTS: S-11-32, S-12-1 to S-12-8, S-12-10, S-12-11

Dean Grant called the meeting to order at 3:05 p.m. He welcomed new and continuing members to the first Faculty of Science meeting of the year.

A. McGill Centraide Campaign

On behalf of Dean (Management) Peter Todd, Ms. Céline Junke, Development Officer from the Faculty of Management, gave a presentation on the McGill Centraide Campaign. She said Centraide raises donations to support a vast network of community agencies that help individuals and families in a situation of poverty. During the 2011 Centraide Campaign, McGill had been one of the top 50 Campaigns, having contributed over \$416,705 from 625 donors. The goal of the 2012 McGill Centraide Campaign was to raise \$450,000, and to increase participation to 825 donors.

Ms. Junke said that members could give by filling out a donation form, through payroll deductions, or online at <http://www.centraide-mtl.org/en/giving/>.

Dean Grant thanked Ms. Junke for the generous contribution of her time to the Centraide Campaign, and he underlined the good work that Centraide supports. He said that it was very important for McGill to be part of the community.

B. New Professors, Recently Tenured Professors, and Recently Promoted Full Professors:

Dean Grant said that, as traditionally, new professors had been invited to the first Faculty meeting to be introduced to their colleagues. New professors would contribute to the continuation of the good name of the Faculty.

New Professors

Chairs or Chairs' delegates introduced the new professors present at the meeting, and described their academic background. The professors then described their areas of research.

Biology	Assistant Professor	WATT, Alanna
Chemistry	Associate Professor	MAUZEROLL, Janine
Computer Science	Assistant Professor	HE, Wenbo
Earth & Planetary Sciences	Assistant Professor	VAN HINSBERG, Vincent
Physics	Assistant Professor	LESLIE, Sabrina
Physics	Professor	PROVATAS, Nikolas
Physics	Assistant Professor	SANKEY, Jack

Tenured Professors

The newly tenured professors present gave a brief description of their research areas.

Atmospheric & Oceanic Sciences	Associate Professor	KOLLIAS, Pavlos
Biology	Associate Professor	CRISTESCU, Melania

Biology	Associate Professor	GREGORY-EAVES, Irene
Computer Science	Associate Professor	LIU, Xue
Earth & Planetary Sciences	Associate Professor	McKENZIE, Jeffrey
Earth & Planetary Sciences	Associate Professor	WING, Boswell
Geography	Associate Professor	BREAU, Sébastien
Geography	Associate Professor	LEHNER, Bernard
Physics	Associate Professor	MALONEY, Alex*

*Prof. Alex Maloney was added to the list of professors recently tenured.

Full Professors

Full Professors present also described their research expertise.

Chemistry	Professor	ARIYA, Parisa
Mathematics & Statistics	Professor	CHOKSI, Rustum
Physics	Professor	JEON, Sangyong

Dean Grant presented a gift bag to the professors present.

(1) ADOPTION OF AGENDA

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

The motion carried.

(2) RESOLUTION ON THE DEATH OF EMERITUS PROFESSOR MANUEL PHILLIP LANGLEBEN

202.1 Prof. Andreas Warburton from the Department of Physics read the Resolution on the Death of Emeritus Professor Manuel Phillip Langleben.

Faculty of Science members, it is with regret that I inform you of the death of Emeritus Professor M. Phillip Langleben, on March 19, 2012, at the age of 87.

Phil Langleben was born in Poland and came to Montreal with his family in his early childhood. He received his entire academic training at McGill University, which started in 1945 when he entered our institution as a BSc student in physics after having completed his war service with the Royal Canadian Navy. He completed an MSc in physics in 1950, and then a PhD in atmospheric physics in 1953, under the supervision of Emeritus Professor Stewart Marshall. Upon his graduation he spent one year as a postdoctoral fellow at the Dunstable Meteorological Office in England, and he returned to McGill the following year as a Research Associate in the Stormy Weather Group. Phil joined our academic staff in 1957 as a lecturer in the Department of Physics. He rose through the ranks, and became a Full Professor in 1968.

After his return to McGill University in the mid-fifties, Professor Langleben switched his research interests from atmospheric physics to ice physics, and joined the Ice Research Project headed by Professor Elton Pounder. For the next 30 years he devoted himself to the study of the physics of ice, and of the interaction of sea ice with the atmosphere above and the ocean below. His scientific contributions in this field have been substantial and influential. He has

done work on problems related to the growth and decay of ice, to the mechanical properties, and the albedo of sea ice. Phil was renowned for carefully designed experiments, frequently done with ingenious instrumentation of his own, and often performed under adverse Arctic conditions. He was a meticulous scientist well known for his careful analysis techniques. Professor Langleben's world-class expertise made him a much sought-after consultant on matters related to cold climates and conditions, and his cutting-edge research earned him being elected Fellow of the Royal Society of Canada.

Professor Langleben was also a devoted teacher, spending long hours preparing his lectures, and an active member of the university community. He has served as Director of McGill's Center for Northern Study from 1977 to 1980, and was Associate Chair of the Department of Physics from 1984 up to his retirement in 1989. Even if Professor Langleben has spent his entire academic career studying snow and ice, he was a warm and compassionate person, with great clarity of thought and a sound judgment.

We have lost a valued colleague who greatly enriched the life of the university. The Faculty of Science extends its condolences to his wife Rose, to his children Adrian, David, Louise, to his daughters-in-law Ruth and Vicky, and to his grandchildren Isaac, Samuel, Debra, Ian, Julia, and Hayley.

The resolution was adopted unanimously.

202.2 Dean Grant thanked Prof. Warburton for the moving resolution.

(3) SEATING OF STUDENT MEMBERS S-12-1

Dean Grant called out the names of the student members, and asked them to identify themselves.

Correction to Document S-12-1: Mr. Sebastian Dragnea, should have read **Honours Program in Mathematics & Computer Science**.

(4) CANDIDATES FOR DEGREES

a) Bachelor of Arts and Science S-12-2

204.1 Director (Advising Services) Allard said there were 14 students graduating with the B.A. & Sc. degree, as opposed to 9 students in October 2011.

Director Allard **moved**, seconded by Mr. Barry, that the above degree list be recommended to the Senate Steering Committee for the Bachelor of Arts and Science degree.

The motion carried.

b) Bachelor of Science S-12-3

204.2 Director Allard said there were 86 students graduating with the B.Sc. degree, and said that there were the same number of candidates the previous year.

Director Allard **moved**, seconded by Mr. Barry, that the above degree list be recommended to the Senate Steering Committee for the Bachelor of Science degree.

The motion carried.

- c) **Diploma in Environment** **S-12-4**

There were no students for the above Diploma.

- d) **Diploma in Meteorology** **S-12-5**

There were no students for the above Diploma.

Director Allard further **moved**, seconded by Mr. Barry, 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.

- 204.3** Director Allard thanked Mr. Peter Barry, Chief Academic Advisor, the SOUSA advisors, and all departmental advisors who were involved with the graduation lists.

(5) **MINUTES OF MAY 22, 2012**

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

The motion carried.

(6) **BUSINESS ARISING FROM THE MINUTES**

There was no business arising from the Minutes.

(7) **REPORTS OF COMMITTEES**

- a) **Nominating Committee** **S-12-6**

1) Science Nominating Committee (For Information)

- 207.1** The Nominating Committee consists of the Science Senate Representatives; the Convenor currently was Prof. Peter Grütter.

2) Science Chairs' Council (For Information)

- 207.2** The Science Chairs' Council serves as an advisory committee to the Dean, and consists of the Dean, the Associate Dean (Academic), the Associate Dean (Research and Graduate Education), the Director of Advising Services, and the heads of all units in the Faculty of Science, including the MSE and the Redpath Museum.

3) Tenure Committee (For Information)

4) Committee On Student Standing (For Approval)

- 207.3** The Committee on Student Standing reviews student appeals of decisions made by the Director of Advising Services.

Prof. Hynes **moved**, seconded by Prof. Roulet, that the membership of the Committee on Student Standing be approved.

The motion carried.

5) Academic Committee (For Approval)

207.4 The Academic Committee reviews and approves all academic content taught in the Faculty of Science.

Mr. Barry **moved**, seconded by Prof. Warburton, that the membership of the Academic Committee be approved.

The motion carried.

6) Scholarships Committee (For Approval)

207.5 The Associate Dean of Research and Graduate Education serves as the Chair of the Scholarships Committee.

Prof. Moore **moved**, seconded by Prof. Jeon, that the membership of the Scholarships Committee be approved.

The motion carried.

7) Leo Yaffe & Principal's Prizes Committee (For Approval)

207.6 The Leo Yaffe and Principal's Prizes Committee recommends candidates for these awards for excellence in teaching.

Prof. Devroye **moved**, seconded by Prof. Roulet, that the membership of the Leo Yaffe & Principal's Prizes Committee be approved.

The motion carried.

8) Council of Graduate And Postdoctoral Studies (For Approval)

207.7 Representatives of all faculties sit on the Council of Graduate and Postdoctoral Studies.

207.8 Dean Grant said that Prof. David Burns from the Department of Chemistry, listed as a member of the CGPS in Document S-12-6, had left McGill during the previous summer, and would have to be replaced. Therefore, only the other two members, Prof. B. Kemme (Computer Science), and Prof. D. Stephens (Mathematics & Statistics) could be approved at the current meeting.

Prof. Lennox **moved**, seconded by Prof. Perepichka, that Prof. Kemme and Prof. Stephens be approved for the membership of the CGPS.

The motion carried.

Secretary's Note: *Prof. Gregory Brown (Biology) is the third Science member on the CGPS.*

(9) B.A. & Sc. PROGRAM ADMINISTRATION COMMITTEE

207.9 The B.A. & Sc. PAC reviews changes and coordinates the administration of the B.A. & Sc. degree programs. Only the Science membership was for approval by the Faculty of Science.

Prof. Devroye **moved**, seconded by Prof. Moore, that the Science membership of the B.A. & Sc. PAC be approved.

The motion carried.

b) Scholarships Committee S-12-7
In-course Scholarships Report

207.10 Associate Dean Peter Grütter said that the In-course Scholarships Report lists awards given to continuing students based on their grades for the 2011-2012 academic year. The SGPA cut-off for receiving a monetary award was 3.98, and for the Dean's Honour List, 3.92.

207.11 Associate Dean Grütter thanked Dean Grant for providing "top-up" money from the Faculty of Science for additional awards.

c) Academic Committee S-12-8

The Academic Committee approved the following on Tuesday, September 25, 2012:

SECTION A: NEW PROGRAMS

- Ad hoc Honours Program in Physics and Computer Science **AC-12-2**

Associate Dean Hendren **moved**, seconded by Prof. Roulet, that the ad hoc program be approved.

The motion carried.

SECTION B: NEW COURSES

(1) Psychology PSYC 661 Psychology Theory 3 credits **AC-12-4**

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

The motion carried.

(2) Human Genetics (The following two courses were approved by electronic vote in May 2012.) HGEN 396 Human Genetic Research Project 3 credits **AC-11-55**

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

The motion carried.

HGEN 400 Genetics in Medicine 3 credits **AC-11-56**

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

Senate opened with the Principal welcoming all new Senators (Bell from Science) and since it was the first Senate meeting of the year the Principal went through the standard reminders of Senate rules and regulations on recording the proceedings and the role of guests.

Senator Bell then rose to give a moving eulogy on the death of Professor Robert (Bob) Lemon.

The report of Steering committee followed the written documentation but it is important to note that the Principal on behalf of the Steering Committee asked for suggestions of topics that Senate should discuss this year.

The Principal's opening remarks reviewed the upcoming items on Senates annual agenda. They included discussions and actions arising from the reports of the two main undertakings on academic planning – ASAP 2012 and the SRP; Campaign McGill and the move to what the Principal referred to as a “state of perpetual revenue generation”; Diversity and Community engagement from the Principal's Task Force on Student Life and Learning; and the Manfredi report on the activities of Senate and collegiality.

The Principal also had short remarked on the orientation – the best ever, McGill's position in ranking - good but slipping, and the implications of the recent Quebec election – the latter were not brief remarks. She informed Senate of the creation of a new Ministry that is now responsible for universities - “Higher education, research and technology” and minister is Pierre Duchesne. She noted the large number of cabinet ministers that have experience in university administration. She indicated that the new government will roll back the tuition increases and this effectively increases McGill's operating deficit another \$6,000,000 for the current academic year. She then outlined a series of deficiencies with respects to how McGill is funded and concluded the “current model is not sustainable”. She stated that her focus for the next year for McGill - Quebec government relationships will be: 1. how will the government make up the funds created by the tuition gap?; 2. fostering relationships with the new government; and 3. advocacy for McGill to redress the prejudicial funding practices relative to other Quebec universities.

Senate then moved into a confidential session to discuss nominations for honorary degrees.

Reports and Motions began with a presentation by VP Di Grappa on workforce planning. In summary we need to figure out how to manage with fewer and less experienced staff given Bill 100's 1:2 replacement policy. He also discussed the concerns about the demographic structure of McGill's workforce. His presentation generated a number of questions related to service and research but he did not provide any substantive answers.

Professor Fuks presented the Annual Report Concerning the Investigation of Research Misconduct and this was by the 439th Report of the Academic Policy Committee. It was in my experience the shortest report of APC ever presented to Senate and contained nothing for approval.

Senate received, discussed and approved all the motion stemming from the Report of the Senate Nominating Committee: these included nominations for Senate Standing Committees, Senate representatives on committees arising from university regulations, and Senate representatives on Advisory Committees for the appointment of several Faculty Deans.

Deputy Provost Mendelson gave a presentation on Advancing Academic Advising – advising is improving but some areas still need attention, and there needs to be work done on how to evaluate the effectiveness of advising.

Associate Provost White proposed two minor amendments to the Regulations Relating to the Employment of Tenure Track and Tenured Academic Faculty for Senate's approval. The first dealt with changes in the dates for notification of leaves and the second dealt with a wording technicality to correct that Statutory Committees could not grant tenure at the same time they approved a recommendation for promotion to full professor. After some debate, including an objection that MAUT was not given advance notice of the proposed changes, Senate approved both motions.

The Annual Report on the Policy on Harassment, Sexual Harassment and Discrimination Prohibited by Law was presented by Associate Provost White.

Senate adjourned at 16:53 – a very good sign for the start of the new academic year.

(9) DEAN'S BUSINESS

(i) Dean's Multidisciplinary Undergraduate Research List S-12-10

209.1 Associate Dean Hendren said that there were three students graduating who would appear on the DMURL, one in an Environment program, and two in Neuroscience. She said that it was interesting that these students were already in interdisciplinary programs.

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

The motion carried.

Associate Dean Hendren further **moved**, seconded by Prof. Hynes, that the Dean be given discretionary power to make such changes in the DMURL list as would be necessary to prevent injustice.

The motion carried.

(ii) Enrolment S-12-11

209.2 Associate Dean Hendren said that in summary, the Faculty of Science had received almost exactly the desired number of students, and the students were very, very good, but perhaps there were not enough CEGEP students.

209.3 Associate Dean Hendren briefly described the admissions process. Students applying to McGill were sorted into groups: students from CEGEPs, Ontario high schools, rest-of-Canada high schools, U.S. high schools and overseas high schools. Each group was assigned an admission threshold, based on grades, which, on previous years' experience, should generate about the required number of offers. Offers were made on a rolling basis, students having higher grades receiving earlier offers. There were different deadlines for different groups.

209.4 The 2012-2013 academic year was the fourth year making use of admission pools. With admissions to the concurrent B.Sc./B.Ed. program now retired, high school students applied to one of two pools:

209.5 (i) Biological, Biomedical and Life Sciences (BBL) pool — students planning to major in the Departments of Anatomy & Cell Biology, Biochemistry, Biology, Microbiology & Immunology, Physiology or Psychology.

- 209.6** (ii) Physical, Earth, Math and Computer Science (PEMC) pool — students planning to major in the remainder of the units in Science.
- 209.7** At the end of U0, students can choose to take a program from within their pool, change pools by applying for an intrafaculty transfer, or apply to Microbiology & Immunology or Neuroscience.
- 209.8** Incoming CEGEP students are able to choose from either of the two pools, or apply to the Microbiology & Immunology or Neuroscience programs. Students can change majors within their pool, or change pools via an intrafaculty transfer.
- 209.9** Associate Dean Hendren briefly outlined the admissions grade cut-offs for various groups for the two pools. She said that the Ontario/Canadian High Schools cut-off for the BBL pool was very high because of the demand. As well as overall grades, the mathematics/science grades were examined, with students requiring at least 85% in this.
- 209.10** The percentage of U0 students in the PEMC pool was moving in the right direction, increasing from 19% in 2009 to 31% in 2012. A good target would be 40%.
- 209.11** PEMC registrations could be further increased by advising activities in Ontario and rest-of-Canada high schools, and by student word-of-mouth; by promoting intrafaculty transfers to PEMC; and by emphasizing that students in PEMC majors can obtain admission to medical school.
- 209.12** Actual admissions to the B.Sc. and the B.A. & Sc. were very close to the targets. Associate Dean Hendren pointed out that while the B.A. & Sc. was not very popular with CEGEP students, it was very popular with students from Ontario High Schools.
- 209.13** Regarding yields (the percentage of offers that are accepted), the four High School Groups were trending together. There was a small but worrying decrease in CEGEP yield over the past several years, although the results for 2012 may have been related to the student boycott.
- 209.14** For 2012, there had been several special challenges: the student boycott, the increased international tuition and fees (\$30,700 per year), and the earlier time of registration required for new students.
- 209.15** There was a 1.32% increase in the total number of B.Sc. and B.A. & Sc. students over the previous year, and an increase of 22% since 2004. The U0 load for Science had increased by 33% since 2004.
- 209.16** Transfers out of the B.Sc. were not a problem, but the B.A. & Sc. experienced a net loss of 11%, which, while still too high, was down from 20% four years previously.
- 209.17** **Points to Consider (High Schools):**
- The historical yield for the High School pool was not very reliable at predicting future yields; more flexibility involving admissions would be useful.
 - Also useful would be better prediction of the fraction of applicants over a given threshold.
 - It must be ensured that international students were of the same calibre as Canadian students since there is pressure to increase international enrolment.
 - Further efforts should be made to interest more high school applicants in the PEMC pool.

- 209.18** **Points to Consider (CEGEPs):**
- The proportion of CEGEP students needed to be increased; interest in Science at high schools and CEGEPs in Québec also needed to be increased.
 - The number of CEGEP graduates should increase over the next few years because of the baby boom echo. Efforts should be made to interest CEGEP graduates in the PEMC pool.
 - There will be further pressure on the UO courses in the future.
- 209.19** In response to a question concerning the origin of students transferring out of the B.A. & Sc., Associate Dean Hendren said she would look into the matter.
- 209.20** Dean Grant thanked Associate Dean Hendren for her detailed analysis.
- (ii) Gift from Dr. Jim Prentice**
- 209.21** Dean Grant said that Jim Prentice had offered money to provide a yearly celebration for its staff. Henceforth, each year the Faculty will hold a celebration of appreciation for its hard-working staff.
- Dean Grant thanked Jim Prentice and Mrs. Prentice for their innovative idea and donation.
- (iii) Gift from Dr. Lorne M. Trottier**
- 209.22** Dean Grant said that the most generous donors in the history of the Faculty of Science had been the Trottier family. Lorne Trottier and his daughter Claire were actually in attendance at the current meeting. A year previously, the Trottier family had endowed the Office of Science & Society, and about seven years previously, had endowed the yearly Trottier Symposium. As well the family had made a large number of other gifts to the Faculty. Now the Trottier family was making a further endowment of approximately \$5 million to set up an Institute in Scientific Public Policy. The Institute will involve scientists, and will offer undergraduate student research awards and professorships.
- 209.23** On behalf of the Faculty of Science, Dean Grant thanked the Trottier family for their most recent in a long string of extremely generous gifts.

(10) MEMBERS' QUESTION PERIOD

There were no members' questions.

(11) OTHER BUSINESS

There being no further business, the meeting adjourned at 4:20 p.m.