FACULTY OF SCIENCE ACADEMIC COMMITTEE

Minutes of the meeting held on September 30, 2008, at 3:00 p.m. in Arts Council Room, Arts 160.

PRESENT: Dean Grant (Chair), Associate Dean Hendren (Vice-Chair), Nicole Allard (Director,

Advising Services); Professors M. Baines, A. Baker, G.C. Bennett, A. Clerk, F. Fabry, A. Hundemer, O. Jensen (in place of Prof. B. Wing), R. Krahe, B. Nagar, P. Panangaden, K. Roulet, J. Unruh; N. Antonov, A. Ashraf, W. Carroll, J. Hwang, V. Khan, K.

Raffensperger, M. Smaoui; J. D'Amico.

REGRETS: Professors D. Ronis and A. Wechsler; Associate Dean Hendershot; L. Houle.

GUESTS: Professor Claire de Mazancourt and Professor Craig Mandato

DOCUMENTS: AC-07-118, AC-08-1 to AC-08-15

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

The members of the Academic Committee introduced themselves, as well as the two guests, Prof. Claire de Mazancourt (Redpath Museum) and Prof. Craig Mandato (Department of Anatomy & Cell Biology).

(1) ADOPTION OF AGENDA

Prof. Bennett **moved**, seconded by Prof. Krahe, that the Agenda be adopted.

The motion carried.

(2) MINUTES OF APRIL 22, 2008

AC-07-118

Prof. Clerk **moved**, seconded by Prof. Bennett, that the Minutes be approved.

The motion carried.

(3) BUSINESS ARISING FROM THE MINUTES

Dean Grant reminded members that all B.Sc. Honours Programs should include a research component. Prof. Hundemer said that although the programs of the Department of Mathematics & Statistics did not require students to take research courses, students were highly encouraged to do so. The Department had discussed various possibilities, and Prof. Hundemer said he would keep the Academic Committee informed.

(4) REPORT ON MINOR COURSE CHANGES

AC-08-1

(for information)

Associate Dean Hendren mentioned that it was a good idea to "tidy up" courses periodically, and she added that it should be done early in the academic year in order for the changes to be reflected in the Calendar.

(5) BIOLOGY/MATHEMATICS & STATISTICS

- Joint Major in Biology and Mathematics

AC-08-2

Prof. Claire de Mazancourt introduced the proposed New Joint Major in Biology and Mathematics, which would replace the former Faculty Program in Biology and Mathematics.

After some discussion concerning the requirement of COMP 202 or COMP 250, the total number of Required credits, and the total number of credits for the joint program, it was agreed that students with sufficient knowledge in a programming language should take COMP 250 rather than COMP 202. Thus, the note referring to COMP 202 should read:

*Students who have sufficient knowledge in a programming language should take COMP 250 rather than COMP 202."

Since students taking a B.Sc. should have at least six credits at the 400-level or above, it was suggested that under Ecology and Evolutionary Ecology Stream, the note in the middle should read:

"At least 9 credits chosen from the following list, of which 6 credits must be at the 400-level or above:"

Prof. Krahe **moved**, seconded by Prof. Hundemer, that the program be adopted with the above modifications.

The motion carried.

(6) ANATOMY & CELL BIOLOGY

106.1 Prof. Craig Mandato introduced the following new course and associated changes to the Major and Honours Programs in Anatomy & Cell Biology.

New Course:

ANAT 416

Dev., Disease and Regeneration

AC-08-

3

3 credits

Prof. Bennett **moved**, seconded by Prof. Fabry, that the course be adopted.

The motion carried.

Major in Anatomy & Cell Biology (Program Changes)
Honours in Anatomy & Cell Biology (Program Changes)

AC-08-4 AC-08-5

As B.Sc. students should take at least six credits of 400 or higher level courses, it was recommended that the following be added under Complementary Courses to both the Major and Honours Programs:

"At least six credits must be 400-level or higher"

Prof. Bennett **moved**, seconded by Prof. Fabry, that the program changes be approved with the above modification.

The motion carried.

(7) ATMOSPHERIC & OCEANIC SCIENCES

Prof. Fabry introduced the course and program changes for the Department of Atmospheric & Oceanic Sciences. He said that the change in credit for ATOC 751D1/D2 was to bring the credit weight in line with the credit weight of a similar seminar course in the Department. Changes to the Ph.D. program reflected this, as well as several housekeeping changes. The changes to the M.Sc. programs were simply housekeeping changes.

ATOC 751D1/D2 Seminar in Physical Meteorology

AC-08-6

Change in credit weight [from 6 to 1]

Prof. Fabry moved, seconded by Prof. Krahe, that the changes be approved.

The motion carried.

- Ph.D. in Atmospheric & Oceanic Sciences

AC-08-7

Prof. Fabry moved, seconded by Prof. Krahe, that the program changes be approved.

The motion carried.

- M.Sc. in Atmospheric & Oceanic Sciences

AC-08-8

Prof. Fabry moved, seconded by Prof. Krahe, that the program changes be approved.

The motion carried.

- M.Sc. in Atmospheric & Oceanic Sciences; Computational Science & Engineering

AC-08-9

Prof. Fabry **moved**, seconded by Prof. Krahe, that the program changes be approved.

The motion carried.

- M.Sc. in Atmospheric & Oceanic Sciences; Environment

AC-08-10

Prof. Fabry moved, seconded by Prof. Krahe, that the program changes be approved.

The motion carried.

(8) MATHEMATICS & STATISTICS

Prof. Hundemer introduced the new course MATH 567, and said that the course would be useful for Honours undergraduate students as well as for graduate students.

New Course:

MATH 567 Intro to Functional Analysis

AC-08-11

4 credits

Prof. Hundemer **moved**, seconded by Prof. Panangaden, that the course be adopted.

The motion carried.

The following Course Proposal Form was withdrawn.

New Course:

MATH 638 Partial Differential Equns 4

AC-08-12

4 credits

(9) <u>COMPUTER SCIENCE</u>

109.1 Prof. Panangaden explained the changes.

- Ph.D. in Computer Science

AC-08-13

Prof. Panangaden **moved**, seconded by Prof. Baines, that the program changes be approved.

The motion carried.

(10) USE OF CLICKERS FOR EXAMINATIONS

- Ms. Allard introduced the issue. She said that clickers had been used for a freshman mid-term exam, and that a complaint had been made to then Associate Dean (Student Affairs) Leighton. With clickers, exam questions are projected sequentially onto a screen. A clock counts down the time to the change of question. Thus all students have exactly the same time to answer each question, and do not have the opportunity to go back on any questions, which is a very different situation from a standard written exam, whether multiple choice or not. The countdown of the clock for every question is stressful for students, since there is no going back.
- In the discussion that followed, it was pointed out that clickers were very useful in contexts other than exams; that with clickers there is no written record of the exam answers; and that, considering clickers were a new technology and that all their potential uses were not yet known, making a global rule banning clicker use for exams was too restrictive, and raised issues of academic freedom.
- Taking account of the preceding discussion, Ms. Allard **moved**, seconded by Associate Dean Hendren, that if clickers were to be used for exams totaling more than 5% of the final grade, their use must be first approved by the Faculty of Science, namely by Ms. Allard, Director, Academic Services.

The motion carried.

(11) B.Sc./M.Sc. AC-08-15

- Associate Dean Hendren introduced the proposed B.Sc./M.Sc. Integrated Program, which had been discussed during the previous year. She said that the integrated program would allow excellent McGill Science undergraduate students to streamline obtaining an M.Sc. Associate Dean Hendren described how the program would work, and went over in some detail the activities that she, units and the Office of Undergraduate Research in Science would have to do to get the proposal underway. She also went over a timeline for the proposal.
- 111.2 Dean Grant pointed out that such a program was not uncommon in the U.S., and he said that the B.Sc./M.Sc. integrated program would take advantage of McGill's excellent undergraduate Science students.
- 111.3 Some points raised were:
 - That the B.Sc./M.Sc. Integrated program might not be considered as strong as a regular B.Sc. and M.Sc.
 - That a very similar process was already happening in some units.

- That at least one unit in Science preferred that both its M.Sc. and Ph.D. students receive their undergraduate training outside McGill.
- 111.4 The student representatives found the idea of the B.Sc./M.Sc. Integrated Program to be intriguing.
- Associate Dean Hendren said that units should send a short description of their activities concerning the proposed B.Sc./M.Sc. to Lisa Stanischewski, and that any questions should be addressed to Associate Dean Hendren.

(12) OTHER BUSINESS

- New DEC in Computer Science and Mathematics

AC-08-14

Associate Dean Hendren introduced the above item, and went over the comparison between the Regular Science DEC and the new DEC. She asked each unit for a listing of any additional freshman course(s) students with the new DEC would have to complete as electives in order to pursue a B.Sc. Degree in that unit.

The meeting adjourned at 4:35 p.m.