

**FACULTY OF SCIENCE
ACADEMIC COMMITTEE**

Minutes of the meeting held on 25 October 2016, at 3:00 p.m. in Arts Council Room, Arts 160.

PRESENT: Associate Dean Tamara Western (Acting Chair), Director Nicole Allard, Professors Timothy Merlis, Thomas Duchaine, Melania Cristescu, Amy Blum, Michael Langer, Jeanne Paquette, Axel Hundemer, Greg Marczynski, Barbara Hales, Andrew Cumming, Ana Nyzhnyk, Caroline Palmer; Ms. Kathy Roulet, Ms. Natalie Waters, Ms. Jasmine Leung, Ms. Elisabeth Sulmont, Ms. Therese Koch, Ms. Jacqueline Chan, Mr. Gary Tom, Ms. Christina Kim

REGRETS: Dean Bruce Lennox; Professors Huy Bui, Michael Hendricks, Anthony Mittermaier, Michel Lapointe; Mr. Daniel da Costa

DOCUMENTS: AC-15-86, AC-16-1 to AC-16-7

Associate Dean Western welcomed everyone to the first Academic Committee meeting of the year, and called the meeting to order at 3:00 p.m. She asked members to introduce themselves.

(1) ADOPTION OF AGENDA

Prof. Mandato **moved**, seconded by Prof. Paquette, that the Agenda be adopted.

The motion carried.

(2) MINUTES OF 26 APRIL 2016

Director Allard **moved**, seconded by Prof. Blum, that the Minutes be approved.

The motion carried.

(3) BUSINESS ARISING FROM THE MINUTES

There was no business arising from the Minutes.

(4) COMPUTER SCIENCE

COMP 251	Algorithms and Data Structures	AC-16-2
	Corequisites & Supplementary Calendar Information	
	3 credits	

Prof. Langer described the changes. He said a co-requisite Mathematics course (either MATH 235 or MATH 240 or MATH 363) has been added to ensure that students have sufficient mathematical maturity. He also said that Supplementary Calendar Information had been added to explain that COMP 251 uses mathematical proof techniques that are taught in the corequisite course(s) and that, if possible, students should take the corequisite course prior to COMP 251. The Supplementary Calendar Information further explains that COMP 251 uses basic counting techniques (permutations and combinations) that are covered in MATH 240 and 363, but not in MATH 235, and that these techniques will be reviewed for the benefit of MATH 235 students.

Director Allard **moved**, seconded by Prof. Duchaine, that the course revision be approved.

The motion carried.

- B.Sc. Program Changes

Joint Major in Computer Science and Biology

AC-16-3

Prof. Langer introduced the program change. He said that the School of Computer Science is proposing to make MATH 240 (Discrete Structures 1) a co-requisite for COMP 251 Algorithms and Data Structures. MATH 240 currently is on the Complementary Courses list for the Joint Major in Computer Science and Biology, but COMP 251 is on the Required Courses list. He explained that the co-requisite change means that MATH 240 would effectively become a Required Course and thus the proposal to move MATH 240 from the Complementary list into the Required list and adjust the credit requirements for the two lists accordingly (namely, reducing the number of Computer Science Complementary credits by 3).

Director Allard **moved**, seconded by Prof. Duchaine, that the course revision be approved.

The motion carried.

(5) McGILL SCHOOL OF ENVIRONMENT

ENVR 491

Independent Project in Environment
Supplementary Calendar Information
1 credit

AC-16-4

Ms. Roulet described the changes. She said the Supplementary Calendar Information (which stated that the fee of \$130.05 for this course is charged to all students registered in ENVR 491 in order to support the cost of transportation, accommodations, local fees and meals and that this course is held at Mont St Hilaire at McGill's Gault Estate, in the Eastern Townships during a weekend in October) had been included from Winter 2012 to Fall 2013 when ENVR 491 was used for a Field Course held at the Gault Nature Reserve. She then went on to explain that this field course is no longer offered and thus the information is out of date and no longer relevant.

In response to a question from Prof. Duchaine as to why this field course is no longer being offered, Ms. Roulet explained that there are no longer the resources needed to offer the course as a field course.

Director Allard **moved**, seconded by Prof. Paquette, that the course revision be approved.

The motion carried.

(6) PHYSICS AND COMPUTER SCIENCE

- Request for Approval of a Joint Honours Ad Hoc Program

AC-16-6

Associate Dean Western reminded members that the Academic Committee reviews both undergraduate and graduate programs, including ad hoc programs. The above program was a request for an ad hoc joint program for a Joint Honours in Physics and Computer Science from four students.

Prof. Duchaine asked if perhaps the Committee should hold off on approving this ad-hoc until this Joint Honours program could be offered officially. Director Allard explained that it was possible to pursue both options. Prof. Duchaine further asked who was consulted in the drafting of this Ad Hoc and Director Allard replied that Prof. Sankey and Prof. Langer offered their guidance. Prof. Langer explained that the students requesting this ad hoc were all Physics students. He further said that when the School of Computer Science was consulted, they expressed the importance of including more Computer Science courses for a permanent Joint Honours but said that this wasn't necessary simply for an Ad Hoc

Program. Associate Dean Western said that the time had come to formalize this program offering and that the discussions initiated through this ad hoc offering could be a start towards formalization.

Director Allard **moved**, seconded by Prof. Cumming, that the ad hoc Joint Honours in Physics and Computer Science program be approved.

The motion carried.

(7) MINOR IN NANOTECHNOLOGY

AC-16-5

Associate Dean Western explained that the Department of Chemical Engineering in the Faculty of Engineering had approved a new 21-credit minor program in Nanotechnology last year but, for various reasons, a consultation was not done with the Faculty of Science. Given that the minor can be taken by B.Sc. students and has a Science advisor in Prof. Grutter, Associate Dean Western said it was important for the Faculty of Science to decide if they will allow students to enroll in this minor.

The Academic Committee expressed many concerns that largely related to the fact that the minor is almost entirely composed of 400- and 500-level courses that have a number of prerequisite courses, thus making many of these courses inaccessible to students, considering the stipulation that 18 credits must be used exclusively for the minor. Prof. Hales, for example, expressed concerns with the inclusion of PHAR 504 (Drug Discovery and Development 2) and said that it will be very difficult and even unrealistic to expect that students will be able to complete the pre-requisites for the this course (i.e. PHAR 301 or PHAR 303). Associate Dean Western explained that this is why the Complementary Course offerings are so broad though she states that this is not ideal for minor programs. Director Allard explained that it is possible to offer a minor program to students with the understanding that this program may be difficult to complete though she also expressed agreement that this is not a well-structured minor for Science students. Director Allard further noted that all Faculty of Science departments were consulted in the creation of this minor with regards to the use of their courses but not in terms of the structure of the minor. Ms. Roulet expressed agreement with Director Allard and noted that the McGill School of Environments also offers programs that are not able to be completed by every student but that some students are able follow these programs. Ms. Leung expressed apprehension given the Committee's concerns and said it was important that programs not be structured in ways that set students up to fail. Ms. Leung also suggested that the committee could review the existing Science minor in biotechnology to see if it would meet the needs of Science students interested in nanotechnology.

Finally, Prof. Duchaine suggested that the Academic Committee provide the Faculty of Engineering its feedback regarding this minor. Associate Dean Western said that she would pass along Prof. Hales' and the Committee's concerns. Prof. Hundemer said that, at minimum, a note should be added to the e-calendar instructing students considering this minor program to consult an advisor.

Director Allard **moved**, seconded by Prof. Duchaine, that the Minor in Nanotechnology be approved.

With a final vote of ten for, nine against and one abstention the motion was tabled to the next meeting of the Academic Committee. Professor Merlis suggested inviting Prof. Grutter, one of the minor's advisers, to the next meeting and Associate Dean Western agreed.

(8) **RETIREMENT OF NON-OFFERED GRADUATE PROGRAMS**

AC-16-1

For Information:

- *Ph.D. in Chemistry – Chemical Biology*
- *M.Sc. in Chemistry (Thesis) – Chemical Biology*
- *M.A. in Geography (Thesis) – Social Statistics*

Associate Dean Western explained that the Faculty of Science reviewed the above three programs that are currently not being offered and consulted with the relevant departments who agreed that these programs can be retired. She also said that, having reviewed the Faculty's other current offerings, there are no other program ready to be retired at this point.

Prof. Hales inquired about the retirement of Pharmacology programs and Associate Dean Western explained that, because these are graduate programs, their retirement will be dealt with by the Faculty of Medicine. Prof. Langer questioned how many students need to be enrolled in a program to deem it worthy of keeping and Associate Dean Western responded that this number varies and depend on a number of factors. Associate Dean Western also highlighted and presented for information a new policy from SCTP on the retirement and reinstatement process for programs. Of note here is that only a program that has been retired for *no more than 5 years* may be reinstated.

(9) **COURSE EVALUATION COMMITTEE**

Associate Dean Western that she has struck a subcommittee to look at aligning at least some course evaluation questions across the Faculty of Science. She said that different departments asked similar questions with varying language – for example, some asked whether the instructor's explanations were 'clear' while others said 'clear and understandable' and still others introduced the concept of 'well organized' presentations. She said that the work of the committee would be to suggest questions for the Faculty of Science which all used the same language so as to make it easier to compare evaluations across departments.

Prof. Duchaine said another important aspect of course evaluations was their timing and noted that, in cases where courses are team taught, professors who teach before the midterm exams may be judged differently than those who teach later in term and who have yet to give exams. Associate Dean Western replied that most departments send out their course evaluations after all exams have been completed. Prof. Hales noted that response rates tend to be quite low when course evaluations are distributed after finals. Two students – Ms. Leung and Mr. Tom – said that they tend to be very busy during finals and would thus prefer to complete course evaluations after this period. Other comments were a note from Prof. Blum that it would be helpful to ask students in the evaluation what they expected to get out of the course and an inquiry from Prof. Cristescu as to whether it is possible to ask the students' gender as it would be useful to know whether different groups of students respond differently to a course. Associate Dean Western said she would ask Teaching & Learning Services if this was possible.

(10) **STRATEGIES FOR HEALTHY PROGRAM DESIGN (from TLS for information)**

Associate Dean Western shared with the committee a document from Teaching & Learning Services which outlined a number of strategies for healthy curriculum and program designs which have been identified as central to the development of programs that prioritize student development and help improve student retention, student engagement, and academic performance.

(11) SUS ACTIVITIES

Ms. Jasmine Leung, V.-P. (Academic Affairs), of the Science Undergraduate Society (SUS), informed the committee of various initiatives that the SUS has undertaken this semester. These include offering an Excel workshop to Faculty of Science students, working in collaboration with the McGill Writing Center to develop a workshop series, planning a number of events such as the Graduate and Professorial Schools Fair, a networking event designed to help first year students choose their major, an undergraduate research information session with Mr. Chisholm of the Science Office of Undergraduate Research, and Academia Week to be held in the second week of February 2017. Other upcoming events mentioned by Ms. Leung included Life After Undergrad for students in both the life science and the physical sciences, a Professional Skills event and workshop series and Social SUSTainability Month wherein funds will be raised to support the charity L'abri en Ville. Finally, Ms. Leung noted that the SUS was in the process of appointing an Executor of Clubs and Services who would act as a financial auditor overseeing clubs and services associated with SUS.

(10) OTHER BUSINESS

There being no further business, the meeting adjourned at 4:34 p.m.