

**FACULTY OF SCIENCE  
ACADEMIC COMMITTEE**

Minutes of the meeting held on 22 January 2019 at 3:00 p.m. in the Arts Council Room, Arts 160.

**PRESENT:** Associate Dean (Academic) Axel Hundemer, Professors Don Baker, Huy Bui, Maxime Denis, Andrew Cumming, Greg Marczynski, Timothy Merlis, Tim Moore, Johanna Neslehova, Ana Nyzhnyk, Gillian O'Driscoll, Kathy Roulet, Clark Verbrugge; Reem Mandil, Kate Noseworthy, Simon Rahman, Mathew Schultz (in place of Riley Bowker); Josie D'Amico.

**REGRETS:** Dean Bruce Lennox, Associate Dean (Education) Tamara Western, Director (Advising Services) Nicole Allard; Professors Amy Blum, Barbara Hales, Michael Hendricks; Karla Gonzalez, Michael Ogundeji, Elya Quesnel; Natalie Waters.

**DOCUMENTS: AC-18-58 to AC-18-73**

In the absence of Dean Lennox, Associate Dean Hundemer called the meeting to order at 3:00 p.m.

**(1) Adoption of Agenda**

The following Agenda items will be considered at a future Academic Committee meeting:

Item # 5, BIOL 517, New Course

Item # 6, B.Sc. Programs:

- Honours in Mathematics & Computer Science

- Honours in Statistics & Computer Science

Prof. Baker **moved**, seconded by Ms. Roulet, that the amended Agenda be approved.

**The motion carried.**

**(2) Minutes of 20 November 2018**

Prof. Denis **moved**, seconded by Prof. Verbrugge, that the Minutes be approved.

**The motion carried.**

**(3) Business Arising from The Minutes**

There was no business arising from the Minutes.

**(4) Physics**

*New Course:*

PHYS 512

Comp. Phys. with Applications  
3 credits

**AC-18-59**

Prof. Cumming introduced the new course, PHYS 512. He said that currently there is no formal course in computational physics in any of the Physics programs, but that computing is a big part of almost all areas of Physics research. PHYS 512 will be included as a Complementary course in the

Honours Program in Physics, as well as the Honours Program in Mathematics & Physics.

Prof. Cumming **moved**, seconded by Prof. Neslehova, that the course be adopted.

**The motion carried.**

**(5) Biology**

BIOL 219 Double-Prefixed with New Course BIEN 219	
BIOL 219	Intro Phys Mol and Cell Biol
	Changes: title, description, prerequisites, corequisites, restrictions, supplementary information
	<b>AC-18-60</b>

Associate Dean Hundemer reminded members that BIOL 219, double-prefixed with BIEN 219 (a joint venture between Engineering and Science), was discussed at the last Academic Committee meeting on 20 November 2018. The main issue of concern was the “recommended” prerequisite CHEM 212 (Introductory Organic Chemistry), and how the term “recommended” could be misleading because of its ambiguity. Associate Dean Hundemer said that, following further discussion with the instructors, it was agreed to remove CHEM 212 entirely because it was not needed for BIOL 219/BIEN 219.

A short discussion ensued about the different marking schemes in Engineering, and about the fact that Engineering does not offer supplemental exams. In reply, Associate Dean Hundemer said that (i) in general, the marking scheme is the same as Science, but that Engineering is not bound by the marking scheme in Science, and (ii) Science students will have the option of writing supplemental exams, while Engineering students will have to comply with the regulations in Engineering.

On the recommendation of Dean Lennox, Associate Dean Hundemer said that since BIOL 219/BIEN 219 will be offered by departments in two different Faculties, it would be prudent to conduct a review of the courses after three years (2021-2022) to ensure that the requirements of both faculties have been met.

Associate Dean Hundemer **moved**, seconded by Prof. O'Driscoll, that the course be adopted.

**The motion carried.**

**The following new course will be considered at a future Academic Committee meeting.**

BIOL 517 ( <i>New Course</i> )	<b>AC-18-61</b>
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**(6) Mathematics & Statistics**

<b>Course Retirement for Engineering Students (for information only)</b>	
MATH 363	Discrete Mathematics
	3 credits
	<b>AC-18-62</b>

Prof. Neslehova briefly explained that MATH 363, a course in two Engineering programs, has not been taught in many years; the course material in MATH 363 is covered in another course. However, during the Fall revisions of the discrete

mathematics courses, the Department of Mathematics and Statistics learned that the course had not been formally retired; therefore, to remedy this omission, the course is being formally retired.

**New Course:**

MATH 208	Intro to Statistical Computing 3 credits	<b>AC-18-63</b>
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Prof. Neslehova described a new introductory course to statistical computing, MATH 208, for U1 students in statistics and data science. MATH 208 will focus on statistical computing with an interest in R, which is currently not formally taught to students. Currently, many students learn on their own but do not acquire good practices in programming with R. This course will introduce students to some basic tools of data science and statistical programming with R early on in their program. In addition, MATH 208 will be complementary to some computer science courses that are taken by students in Mathematics & Statistics programs. Prof. Neslehova added that, pending approval by the MEES, MATH 208 will be added to the B.Sc. Major Program in Statistics, and it will also be added to the new B.A. Major Concentration in Statistics (to be approved by the Faculty of Arts). Also, MATH 208 will be included in the Honours Program in Statistics, along with other changes to the Honours, and will be brought for consideration at a later meeting of the Academic Committee.

Prof. Neslehova **moved**, seconded by Prof. Merlis, that the course be adopted.

**The motion carried.**

**New Course:**

MATH 358	Honours Advanced Calculus 3 credits	<b>AC-18-64</b>
MATH 248	Honours Vector Calculus Changes: title; description; restrictions 3 credits	<b>AC-18-65</b>

Prof. Neslehova explained that a newly proposed course, MATH 358, Honours Advanced Calculus, goes hand in hand with the revised course, MATH 248, Honours Vector Calculus. MATH 248 is offered in many Honours programs in Mathematics & Statistics, as well as in joint programs. In recent years, the enrolment has gone up dramatically, and the level of the course has increased substantially, leaving half of the class struggling in the course. After much discussion in the Department, it was decided to split the course into two courses: MATH 358 will be the more advanced course and MATH 248 has been revised to be taught at the originally intended level. MATH 358 is intended for U2 students in the Honours programs and the appropriate prerequisites will better prepare students to succeed in the course.

Prof. Neslehova **moved**, seconded by Prof. O'Driscoll, that MATH 358 be adopted, and that the revisions to MATH 248 be approved.

**The motion carried.**

- **B.A. & Sc. Program Changes:**
- Joint Honours Component in Mathematics **AC-18-66**
- **B.Sc. Program Changes:**
- Honours in Mathematics **AC-18-67**

- Honours in Applied Mathematics

**AC-18-68**

The three above-mentioned program changes were necessitated by the new course, MATH 358, and the revised course, MATH 248, discussed above. In the B.A. & Sc. Joint Honours Component in Mathematics, students could take either Complementary course MATH 248 or MATH 358, whereas in the B.Sc. Honours Program in Mathematics, and the Honours Program in Applied Mathematics, students are required to take MATH 358. A further change in the latter program involves adding COMP 208 and **COMP 204** (included at the current meeting) to the note about limited programming experience.

Prof. Neslehova **moved**, seconded by Prof. Verbrugge, that the above program revisions be approved.

**The motion carried.**

**The following joint program proposals were postponed to a future Academic Committee meeting:**

- Honours in Mathematics and Computer Science
- Honours in Statistics and Computer Science

**AC-18-69**

**AC-18-70**

**For Information Only:**

**B.A. Program Changes**

- Honours in Mathematics
- Honours in Applied Mathematics
- Honours in Mathematics and Computer Science
- Joint Honours Component in Mathematics

**New B.A. Programs (For Information):**

- Major Concentration in Statistics
- Supplementary Minor Concentration in Statistics

**(7) Computer Science**

COMP 558                      Fund. of Computer Vision  
Changes: credit weight, description,  
prerequisites, restrictions  
4 credits

**AC-18-71**

Prof. Verbrugge described the changes to COMP 558. He said the credit weight of the course has been increased to 4 credits (from 3). The increased credit weight is justified by the extensive workload required to successfully complete the course. The course description and prerequisites have been updated to better reflect the current course content and the necessary background requirements. The restriction has been removed since it is no longer valid.

Prof. Verbrugge **moved**, seconded by Prof. Neslehova, that the changes be approved.

**The motion carried.**

COMP 599                      Topics in Computer Science 2  
Change in credit weight  
4 credits

**AC-18-72**

Prof. Verbrugge explained that the change in credit weight from 3 credits to 4 will offer a choice between two topics courses, COMP 599 (4 credits) and COMP 598 (3 credits). By offering an option, the instructor could choose the course that better fits the expected workload; also, it would be fairer to students to be credited for the actual work done.

Associate Dean Hundemer commented that the titles of COMP 599, Topics in Computer Science 2, and COMP 598, Topics in Computer Science 1, are somewhat confusing since the courses do not need to be taken in sequence.

Prof. Verbrugge **moved**, seconded by Prof. O'Driscoll, that the changes be approved.

**The motion carried.**

**(8) Chemistry**

CHEM 701	Comprehensive Examination Change in title 0 Credits	<b>AC-18-73</b>
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In the absence of Prof. Blum, Associate Dean Hundemer said that the current title for CHEM 701 is Comprehensive Examination 1, but since there is no longer a course with the title Comprehensive Examination 2, the number "1" in the title for CHEM 701 is being removed.

Associate Dean Hundemer **moved**, seconded by Prof. Merlis, that the changes be approved.

**The motion carried.**

**(9) SUS Activities**

SUS President Reem Mandil announced that the next big SUS event is Academia Week, To Science and Beyond, from 28 January – 1 February 2019, 1:30 p.m. – 2:30 p.m. The event features a week-long series of lectures, workshops and information sessions, all hosted by the SUS.

**(10) Other Business**

(i) In response to a member, the Academic Committee agreed to vote electronically on two minor Psychology course changes. The proposals will be emailed to the AC members after the current meeting. Information about these course revisions will be available at the next AC meeting.

(ii) Associate Dean Hundemer advised members to contact him first if departments are planning to create double-prefix courses because these courses are administratively complicated. A simpler option would be to cross-list courses instead.

There being no further business, Prof. Cumming **moved**, seconded by Prof. O'Driscoll, that the meeting be adjourned at 3:35 p.m.

**The motion carried.**

**Next Meeting: 26 February 2019**