

**FACULTY OF SCIENCE
ACADEMIC COMMITTEE**

Minutes of the meeting held on 26 February 2019 at 3:00 p.m. in the Arts Council Room, Arts 160.

PRESENT: Acting Chair, Prof. David Stephens, Associate Dean (Academic) Axel Hundemer, Director (Advising Services) Nicole Allard; Professors Amy Blum, Huy Bui, Bill Coish (in place of Andrew Cumming) Maxime Denis, Barbara Hales, Michael Hendricks, Greg Marczynski, Tim Moore, Johanna Neslehova, Kathy Roulet, Clark Verbrugge; Natalie Waters; Riley Bowker, Adam Wertheimer (in place of Karla Gonzalez) Josie D'Amico.

GUEST: Prof. Abigail Gerhold, Department of Biology

REGRETS: Dean Bruce Lennox, Associate Dean (Education) Tamara Western, Professors Don Baker, Timothy Merlis, Reem Mandil, Ana Nyzhnyk, Kate Noseworthy, Gillian O'Driscoll, Michael Ogundeji, Elya Quesnel, Simon Rahman.

DOCUMENTS: AC-18-76 to AC-18-98

In the absence of Dean Lennox, Prof. Stephens from the Department of Mathematics and Statistics called the meeting to order at 3:00 p.m.

1. Adoption of Agenda

The following items on the Agenda will be considered at the next Academic Committee meeting: Item # 9, PSYC 408 (AC-18-96), and PSYC 641/PSYC 642 (AC-18-97)

Prof. Merlis **moved**, seconded by Prof. Hendricks, that the amended Agenda be approved.

The motion carried.

2. Minutes of 22 January 2019

AC-18-76

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

The motion carried.

3. Business Arising from the Minutes

- Psychology: PSYC 315, PSYC 483 (Changes in Prerequisites), Results of Electronic Vote

Associate Dean Hundemer said that, at the previous Academic Committee meeting (22 January 2019), members had agreed to consider the revisions in prerequisites for PSYC 315 and PSYC 483 via email. In an electronic vote, the AC voted to approve these changes.

**4. Physics
New Course:
PHYS 321**

Data Sci & Obs Astrophys
3 credits

AC-18-77

Prof. Coish introduced a new undergraduate course in astrophysics, PHYS 321. The idea is to complement two other undergraduate astrophysics courses, both theory courses, that are currently offered by the Department of Physics. Since many graduate astronomy programs require at least three astrophysics courses at the undergraduate

level, PHYS 321 addresses the needs of students intending to pursue graduate studies in this area.

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

The motion carried.

5. (i) **Biology**
New Course:
BIOL 517

Cognitive Ecology
3 credits

AC-18-78

Prof. Hendricks presented a new course, BIOL 517, which will be taught by a new instructor in the Department of Biology, and fits in well with the instructor's research area. This new course bridges the evolutionary ecology, neurobiology, and behaviour streams currently offered in the Department. In addition, BIOL 517 will be the continuation of BIOL 307, Behavioural Ecology.

Prof. Hendricks **moved**, seconded by Prof. Gerhold, that the course be adopted.

The motion carried.

Prof. Stephens suggested that, at the next Academic Committee meeting (26 March 2019), there be a discussion on evaluation methods, focussing particularly on the assessment of group work and peer evaluation, all with a view to fairness to students' education. He also suggested that perhaps there should be guidelines in place for courses using these types of evaluation, which seem to be increasingly common.

BIOL 301

Cell and Molecular Laboratory
Changes: prerequisites, restrictions
4 credits

AC-18-79

Prof. Hendricks explained that the changes involve removing PHYS 102 and PHYS 142 as prerequisites, since PHYS 102 is required for the Biology programs, and therefore there is no need to include the two Physics courses as prerequisites, since the content of these courses is not required to be taken prior to taking BIOL 301.

Prof. Hendricks **moved**, seconded by Prof. Gerhold, that the changes be approved.

The motion carried.

BIOL 324

Ecological Genetics
Changes: description, schedule type
3 credits

AC-18-80

Prof. Hendricks described the changes to BIOL 324. He said that, due to popular demand for more hands-on experience, BIOL 324 is being proposed as both a lecture course and a computer/lab conference course. To take these changes into account, the course description has been revised.

Prof. Hendricks **moved**, seconded by Prof. Gerhold, that the changes be approved.

The motion carried.

BIOL 428

Biological Diversity in Africa
Removal of restriction
3 credits

AC-18-81

The restriction is being removed from BIOL 428 since the course it refers to no longer exists.

Prof. Hendricks **moved**, seconded by Prof. Gerhold, that the changes be approved.

The motion carried.

BIOL 544	Genetic Basis of Life Span Change in course activities 3 credits	AC-18-82
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The proposal is being made to offer BIOL 544 as a seminar course instead of a lecture course. BIOL 544 and BIOL 546 are offered in alternate years. With the proposed changes in BIOL 544, this course will mirror BIOL 546 which is another seminar course. This will be to reflect the manner in which BIOL 544 is given, and to match BIOL 546, Genetics of Model Systems); these courses are offered in alternate years.

Prof. Hendricks **moved**, seconded by Prof. Gerhold, that the changes be approved.

The motion carried.

(ii) Biology/McGill School of Environment BIOL 540/ENVR 540	Ecology of Species Invasions Changes in prerequisites 3 credits	AC-18-83/84
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BIOL 540 and ENVR 540 are double-prefix courses, and the modifications to the prerequisites will open up the course to a broader audience, specifically to students with various backgrounds in Biology and Environment programs.

Prof. Hendricks **moved**, seconded by Prof. Gerhold, that the changes be approved.

The motion carried.

6. Mathematics & Statistics

MATH 249	Honours Complex Variables Change in prerequisites 3 credits	AC-18-85
MATH 314	Advanced Calculus Change in restrictions 3 credits	AC-18-86
MATH 316	Complex Variables Change in prerequisites 3 credits	AC-18-87
MATH 319	Intro to Partial Diff Equas Change in prerequisites 3 credits	AC-18-88
MATH 458	Honours Differential Geometry Change in prerequisites 3 credits	AC-18-89
MATH 475	Honours PDE's Change in prerequisites 3 credits	AC-18-91

Prof. Neslehova explained that all of the above course changes were necessitated by the creation of a new course, MATH 358, and the revisions to MATH 248, approved at the last Academic Committee meeting held on 22 January 2019. Since these courses are equivalent prerequisites for all courses that require advanced calculus, and are included in many programs, the prerequisites to the above courses needed to be updated. Additionally, the restrictions for MATH 314 were revised to include MATH 358.

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

The motion carried.

MATH 466	Honours Complex Analysis Changes in prerequisites; corequisite 3 credits	AC-18-90
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The change in prerequisites for MATH 466 is also triggered by the revisions to MATH 248 and MATH 358. After a careful review of MATH 466, the Department of Mathematics & Statistics concurred that the course material in MATH 248 is not required as a prerequisite, nor is the content in the corequisite course, MATH 454; thus the corequisite is being removed, and the prerequisite is being replaced with MATH 255 (Honours Analysis 2).

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

The motion carried.

B.Sc. Program Changes:

- Honours in Mathematics and Computer Science	AC-18-92
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Prof. Neslehova explained that since MATH 248 and MATH 358 have been split into two courses, students in the joint programs will have the choice between taking either of these courses, and because of this, MATH 248 is no longer a required course. A further change from the School of Computer Science is that students lacking knowledge in computer programming may take either COMP 202, COMP 204 or COMP 208 as a Complementary course.

Prof. Neslehova **moved**, seconded by Prof. Coish, that the above program changes be approved.

The motion carried.

For Information Only:

B.A. Program Changes:

- Honours in Mathematics and Computer Science

B.Eng. Program Changes:

- Minor in Mathematics

7. Atmospheric & Oceanic Sciences

ATOX 531	Dynamics of Current Climates Change in corequisite 3 credits	AC-18-93
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ATOX 541	Synoptic Meteorology 2 Change in prerequisite 3 credits	AC-18-94
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ATOC 558	Numerical Methods & Laboratory Change in prerequisite 3 credits	AC-18-95
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On behalf of Prof. Merlis, Associate Dean Hundemer presented the changes to the above courses. The changes in a corequisite and prerequisites were due to the fact that the courses are no longer offered, having been replaced many years ago.

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

The motion carried.

8.	<u>Microbiology & Immunology</u> MIMM 465	Bacterial Pathogenesis Change in description 3 credits	AC-18-96
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Prof. Marczynski described the reasons for the change in description for MIMM 465. He said that the course had previously been taught by Prof. Herve LeMoual, and now a new instructor, Prof. Michael Reed, is the new coordinator of the course. MIMM 465 is a required U3 course in the Microbiology & Immunology Major and Honours programs. The revisions to the description reflect Prof. Reed's view of the content of MIMM 465.

After a lengthy discussion, the following concerns about the method of evaluation were raised by members:

- (1) There is a 40% weight put on a one-hour midterm. An exam of that weight should be at least 2 hours long to be in line with standard practices.
- (2) The number of multiple-choice questions seems high for a one-hour exam; this will be a particular disadvantage for international students whose first language is not English. Will the midterm examination include questions from six individual instructors?
- (3) There was a suggestion to replace some multiple-choice questions with full written solution questions.
- (4) The weight assigned to the presentation seems high given that the individual presentations will likely be quite short.
- (5) One of McGill students' rights is the right to have any grade reassessed. Presentation grades are by nature difficult to reassess (especially if there is only one instructor present); students therefore would appreciate having more exams or written work.
- (6) It was suggested to add a formal three-hour final exam to this course.

Due to the number of issues raised, the Academic Committee decided to table the course proposal; this will give the Department the opportunity to respond to these concerns and to potentially implement changes. The proposal can be brought back to the Academic Committee at the next or a subsequent meeting.

The following items will be postponed to the next Academic Committee meeting.

9.	<u>Psychology</u> PSYC 408	Principles of Cog Beh Therapy Changes: title, description, prerequisites, restrictions 3 credits	AC-18-97
	PSYC 641/PSYC 642	Behavior Deviations Changes: course split [from PSYC 641D1/D2] activities, title, description, restrictions	AC-18-98

10. SUS Activities

There was no report on SUS activities for the current meeting.

11. **Other Business**

There being no other business, Prof. Denis **moved**, seconded by Prof. Hales, that the meeting be adjourned at 3:40 p.m.

The motion carried.

Next meeting: 23 April 2019