ATTENDANCE: As recorded in the Faculty Appendix Book

DOCUMENTS: S-21-16 to S-21-23

Dean Lennox called the meeting to order at 3 p.m., and welcomed members to the Faculty of Science Degree meeting.

1. Adoption of Agenda

   Prof. Breau moved, seconded by Prof. Fabry, that the Agenda be adopted.

   The motion carried.

2) Candidates for Degrees

   a) Bachelor of Arts and Science   S-21-17
   b) Bachelor of Science            S-21-18

   Associate Dean Mittermaier said there were 27 students graduating with the B.A. & Sc. degree, and 206 students graduating with the B.Sc. degree. The corresponding figures for 2021 were 24 and 192. The CGPA cut-offs for both the Dean's Honour List (top 10%) and for Distinction (top 25%, but below the top 10%) would be set prior to the May 2022 graduation.

   In response to Dean Lennox, Mr. Barry replied that the increase in the number of B.Sc. students graduating in February related to COVID-19 was unknown at this time.

   Associate Dean Mittermaier moved, seconded by Mr. Barry, that the above degree lists be recommended to the Senate Steering Committee for the Bachelor of Arts and Science degree, and for the Bachelor of Science degree.

   The motion carried.

   c) Diploma in Environment        S-21-19
   d) Diploma in Meteorology         S-21-20

   There were no students graduating with the Diplomas in Environment and Meteorology.

   Associate Dean Mittermaier further moved, seconded by Mr. Barry, that the Dean be given discretionary power to make such changes as would be necessary to prevent injustice.

   The motion carried.

   Associate Dean Mittermaier and Mr. Barry thanked both departmental advisors and SOUSA advisors for their diligence and hard work in preparing the graduation lists.

3. Minutes of 18 January 2022 S-21-16

   Prof. Hurtubise moved, seconded by Prof. Breau, that the Minutes be approved.
The motion carried.

4. **Business Arising from the Minutes**

There was no business arising from the Minutes.

5. **Report of Committee**

   - **Academic Committee**

     Associate Dean (Academic) Axel Hundemer described the following proposals approved at the Academic Committee meeting held on Tuesday, 15 February 2022.

### Section I. New Courses

1. **Faculty of Science**
   - FSCI 198   Climate Crisis and Climate Actions   AC-21-31(Rev)
     
     3 credits

    Associate Dean Hundemer introduced FSCI 198, a new course intended for a broad student audience at McGill. The target audience is not only Science students because the climate crisis affects everyone. The course includes (i) a scientific component, (ii) the social aspects of climate change, and (iii) the Indigenous perspective on the climate crisis. Also, another critical element of the course will be addressing climate actions. Due to the multi-disciplinarity of FSCI 198, it was necessary to assign a Faculty of Science (FSCI) subject code. The course was designed primarily by Director Marcy Slapcoff (Office of Science Education) and Dr. Diane Dechief (course coordinator) in collaboration with various Science departments. The core group of instructors will be Prof. Jennifer Sunday (Biology), Prof. Natalya Gomez (Earth & Planetary Sciences), and Prof. Chris Ragan (Director, Max Bell School of Public Policy). In addition, other guest lecturers will be professors from various McGill units: Bieler School of Environment, Indigenous Studies, Geography, Atmospheric and Oceanic Sciences, Earth and Planetary Sciences, Centre for Indigenous Peoples’ Nutrition and Environment, Communication Studies.

    In response to a member from the Department of Biology, Director Slapcoff said she would consult with the Department.

    Associate Dean Hundemer **moved**, seconded by Mr. Bhutkar, that the course be adopted.

    The motion carried.

*Secretary’s Note:* Following the meeting, a consultation report has been received from the Department of Biology.

2. **Mathematics & Statistics**
   - MATH 378   Nonlinear Optimization   AC-21-69
     
     3 credits

    Associate Dean Hundemer explained that MATH 378 would be replacing a current course, MATH 560, to be retired later in the meeting. He said that Mathematics optimization has grown in importance in artificial intelligence and machine learning, and offering the course at a lower level will make it accessible to students in lower years.
Associate Dean Hundemer **moved**, seconded by Prof. Hurtubise, that the course be adopted.

**The motion carried.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>MATH 463</td>
<td>Convex Optimization</td>
<td>3</td>
</tr>
<tr>
<td>MATH 563</td>
<td>Honours Convex Optimization</td>
<td>3</td>
</tr>
</tbody>
</table>

Associate Dean Hundemer introduced MATH 463 for non-Honours students and MATH 563 for Honours and graduate students. Majors and Honours students will be attending the same lectures, but Honours students will have extra assignments/exams. Convex optimization courses are being offered in many universities because there is a significant demand for convex optimization algorithms in various areas of quantitative research.

Associate Dean Hundemer **moved**, seconded by Prof. Hurtubise, that the above courses be adopted.

**The motion carried.**

3. **Geography**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 428</td>
<td>Earth System GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 628</td>
<td>Advanced Earth System GIS</td>
<td>3</td>
</tr>
</tbody>
</table>

Associate Dean Hundemer said that the lectures of the above new courses, GEOG 428 and GEOG 626, would be given in the same classroom, but the workload would be distinct for the GEOG 626 course. These new courses will focus on specific GIS techniques that are most relevant to the field of Earth System Science and related disciplines. There are existing GIS courses in Geography, however, there is minimal overlap with the current offerings.

Associate Dean Hundemer **moved**, seconded by Prof. Breau, that the above courses be adopted.

**The motion carried.**

4. **Computer Science**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COMP 585</td>
<td>Intelligent Software Systems</td>
<td>4</td>
</tr>
</tbody>
</table>

Associate Dean Hundemer introduced COMP 585, a new intelligent software systems course. COMP 585 explicitly addresses the practical problems related to the software engineering aspects of building intelligent software systems. The course had been taught twice before as a topics course.

Associate Dean Hundemer **moved**, seconded by Prof. Blanchette, that the course be adopted.

**The motion carried.**

**Section II. Course Revisions**

1. Mathematics & Statistics
MATH 222  Calculus 3  
Change in Restrictions  
3 credits  

Associate Dean Hundemer said the current CEGEP course number was being removed from the restrictions because the course number of Calculus 3 in CEGEPs was not consistent across all the CEGEPs.

Associate Dean Hundemer moved, seconded by Dr. Dechief, that the changes be approved.

The motion carried.

MATH 560  Optimization  
Course Retirement  
4 credits  

Associate Dean Hundemer said due to the adoption of the new MATH 378 course (above), MATH 560 was being retired.

Associate Dean Hundemer moved, seconded by Prof. Hurtubise, that the course retirement be approved.

The motion carried.

2. Biology  

BIOL 202  Basic Genetics  
Change in Supplementary Calendar Information  
3 credits  

Associate Dean Hundemer said that the change in BIOL 202 was to remove the Summer term listed in the eCalendar.

Associate Dean Hundemer informed members that changing the term of a course requires approval by SCTP. Consequently, a course revision form should be submitted for approval to the Academic Committee, Faculty meeting, and then to SCTP for final approval. Most importantly, departments should discuss the term change with their departmental advisors and SOUSA in the event that the change affects programs in other units.

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

The motion carried.

BIOL 307  Behavioural Ecology  
Changes: Course Activities, Description, Prerequisites, Supplementary Calendar Information  
3 credits  

Associate Dean Hundemer explained that the Department of Biology revised the course description, course activities, and restrictions to reflect the current content of BIOL 307. A previously approved course, BIOL 216, would now replace the current prerequisite course, BIOL 205.
Associate Dean Hundemer moved, seconded by Prof. Fussmann, that the changes be approved.

**The motion carried.**

**BIOL 499D1/D2**

Honours Seminar in Biology  
Changes: Course Activities, Description, Restrictions,  
Supplementary Calendar Information  
4 credits

Associate Dean Hundemer said that BIOL 499D1/D2 was redesigned due to the impact of COVID-19. The course was modified from a seminar course to a combination of lectures, discussions about the practical aspects of science and scholarship. The course description and restrictions had been updated to reflect the current course content.

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

**The motion carried.**

3. **Computer Science**

**COMP 321**

Programming Challenges  
Changes: Credit [from 1 to 3 credits], Prerequisites, Corequisites  
3 credits

Associate Dean Hundemer described the proposed change in credit weight (from 1 to 3 credits) for COMP 321. The increase in credit weight was deemed necessary to reflect the students' workload and allow more time to cover topics adequately. In addition, the prerequisites and corequisites have been revised to ensure proper preparation for all students taking COMP 321.

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

**The motion carried.**

**Section III. Program Revisions**

- Honours in Neuroscience  
- Major in Neuroscience

Associate Dean Hundemer said several newly approved courses were added to the Complementary lists to the Honours and Major Programs in Neuroscience, thus offering more choices.

Associate Dean Hundemer moved, seconded by Mr. Barry, that the changes be approved.

**The motion carried.**

**Section IV. Other**

- Courses on Dean’s Multidisciplinary Undergraduate Research List (DMURL)
Associate Dean Hundemer described the DMURL and said that on an annual basis, the list is updated by Mr. Victor Chisholm from the Science Office for Undergraduate Student Advising (SOU SA). At the Academic Committee meetings, there were several discussions about adding research courses that were not 100% research projects on the DMURL. These research courses included instructions in research methods, while these were primarily research projects. The Academic Committee approved three courses (below) that are predominately devoted to research, and it adopted guidelines to determine whether courses are deemed eligible for the DMURL.

- MIMM 390 SEA-PHAGES: Phage Discovery (3 credits)
- MIMM 391 SEA-PHAGES: Genome Annotation (3 credits)
- BIOL 389: Laboratory in Neurobiology (3 credits)

**Guidelines for research course to qualify for DMURL:**

- A preponderance of these guidelines should apply, not necessarily 100%.
- The professor should be more of a supervisor/mentor/overseer, less of a teacher
- Not “follow the recipe”, not cookbook – projects should reflect the creative or problem-solving side of research
- **Significant portion of the course (more than half the student’s effort) devoted to the research** project; lectures, instruction in the topic, technical how/to etc. not the main focus of contact time.
- This significant weight of the research project should be reflected in the grading scheme, and also the weekly schedule (how many hours in lecture mode, vs how much time “in the lab”, how much additional time for homework and writing reports etc).
- Student involvement in a **significant** portion of the research experience, from insight to hypothesis, experimental design, data collection, testing, analysis, write-up / presentation. DMURL-able projects might not cover every stage, so e.g. data analysis alone would typically not be enough but a replication project might.
- Methods courses (traditional lab courses, research methods course, etc.) and technique-heavy courses are NOT generally DMURL-able.
- What is the student’s typical experience in the course? What do they do, experience, learn, take away? Does that tell us anything different from the above questions?

Associate Dean Hundemer said members may direct any questions to Mr. Chisholm (victor.chisholm@mcgill.ca) or Associate Dean Hundemer (axel.hundemer@mcgill.ca).

Associate Dean Hundemer **moved**, seconded by Mr. Barry, that the above courses be added to the DMURL.

**The motion carried.**

Dean Lennox thanked Associate Dean Hundemer for the report of the Academic Committee.

6. **Dean's Business**

a) Dean’s Multidisciplinary Undergraduate Research List (DMURL) S-21-22

Associate Dean Mittermaier described the DMURL. The DMURL provides recognition for students who have completed at least 9 credits of graded research-based courses in at least two different units, and who have a minimum GPA of 3.00 on these courses. There was one B.Sc. student and three B.A. & Sc. students listed in Document S-21-22 who
would be graduating with this honour. Associate Dean Mittermaier thanked Mr. Victor Chisholm, SOUSA, for his work on the DMURL.

b) B.Sc. Global Designation

Associate Dean Mittermaier said that the B.Sc. Global was a designation being given at graduation. Students must have at least three credits of a second language course, at least three credits of an independent research project course, plus a third component, chosen from various preselected options. There was one candidate who would graduate with the B.Sc. Global designation in Document S-21-23. Associate Dean Mittermaier thanked Ms. Elisa David, Internships & Field Studies Office, for her work on the Global Designation.

c) Announcements

(I) Planning for Fall 2022

As announced on 22 February 2022 via the MRO McGill Communications, Dean Lennox said that all the activities at McGill would return entirely in person for the Fall 2022 semester. The Faculty has been working with the Provost and Vice-Principal (Academic), Deputy Provost (Student Life & Learning), and the Associate Provost (Teaching and Academic Programs) on implementing returning fully to in-person classes. The Dean and Associate Dean (Academic) and Associate Dean (Student Affairs) has had discussions with the Registrar’s Office and the Class Scheduling Office to optimize classroom scheduling for students to complete programs on time. The return to in-person activities announcement is good news for the students, although it will be different from a return to before the pandemic. In terms of pedagogy, Dean Lennox said that he would like to hold an open discussion at the Faculty of Science meeting on 26 April 2022 on the various course delivery methods, feedback, and assessment for the future. There have been many lessons learned over the last two years, and it was essential to capture the benefits.

(II) Kudos

(i) Canadian Society for Chemistry's Ricardo Aroca Award
Professor Parisa Ariya (Departments of Chemistry/Atmospheric and Oceanic Sciences) won the Canadian Society for Chemistry's Ricardo Aroca Award.

The Ricardo Aroca Award is presented to a scientist residing in Canada who has made a distinguished contribution to the field of analytical chemistry while working in Canada.

(ii) Canadian Society for Chemistry's Canadian Light Source T.K. Sham Award
Professor Dmitrii Perepichka (Chair, Department of Chemistry) won the Canadian Society for Chemistry's Canadian Light Source T.K. Sham Award.

The Canadian Light Source T.K. Sham Award is presented to an individual who has made a distinguished contribution to materials chemistry both in terms of research and mentoring while working in Canada.

(iii) Canadian Society for Chemistry's Bernard Belleau Award
Professor Gonzalo Cosa (Department of Chemistry) was the winner of the Canadian Society for Chemistry's Bernard Belleau Award.

The Bernard Belleau Award is presented to a scientist residing in Canada who has made a distinguished contribution to the field of medicinal chemistry through research involving biochemical or organic chemical mechanisms.
(iv) Chemical Institute of Canada's CIC Medal
Professor Chao-Jun Li (Department of Chemistry) was awarded the 2022 Chemical Institute of Canada's CIC Medal.

The CIC Medal is presented as a mark of distinction and recognition to a person who has made an outstanding contribution to the science of chemistry or chemical engineering in Canada, this is the CIC’s top award.

(v) Chemical Institute of Canada's Montréal Medal/Médaille de Montréal
Professor David Harpp (Department of Chemistry) was presented with the Chemical Institute of Canada's Montréal Medal/Médaille de Montréal.

The Montréal Medal/Médaille de Montréal is presented as a mark of distinction and honour to a resident of Canada who has shown significant leadership in or has made an outstanding contribution to the profession of chemistry or chemical engineering in Canada.

(vi) Canadian Pain Society's Outstanding Pain Mentorship Award
Professor Jeffrey Mogil (Department of Psychology) was presented with the Canadian Pain Society's Outstanding Pain Mentorship Award.

The Outstanding Pain Mentorship Award is presented annually at the CPS Annual Scientific Meeting to a researcher and/or clinician who consistently exemplifies outstanding mentorship in the training of future pain researchers and/or clinicians.

On behalf of the Faculty of Science, Dean Lennox congratulated the above award recipients on their remarkable accomplishments.

(III) Undergraduate Annual Poster Showcase
Dean Lennox announced that the third Undergraduate Annual Poster Showcase hosted by the Office of Science Education would be held virtually on Tuesday, 15 March 2022 from 6-8 p.m. This year’s event will focus on science communication to the general audience. Invitations will be sent via the Faculty of Science listserv.

7. Science Undergraduate Society (SUS) Report
Mr. Rohan Bhutkar, SUS President, gave the following SUS report.

Science students are overwhelmingly excited about the news released on 22 February 2022 regarding the return of in-person activities for the Fall 2022 semester. The SUS Executive Committee has worked tirelessly to plan the next few months to resume planning events.

The SUS held a General Assembly for all Science students to approve the elections timetable earlier this month. There will be a meeting of the candidates on 23 February 2022. The President of the SUS has been meeting with Marilena Carfaro, Stephanie Marshall, and other student groups in Burnside to plan the basement renovation scheduled to begin in May 2022.

The Internal portfolio has been working hard at bouncing back from the closures of January and February 2022. The Science Internal Committee has been meeting weekly and, after completing the social media challenge event last week, a range of events have been scheduled. These include a potential St. Patrick’s Day event, a cafe crawl around Montreal, a tye-dye event, and a karaoke night. Since Science Games had to be
canceled last month, the Committee has begun working on a potential one-night makeup event to allow participants to showcase the merchandise purchased. Plans are underway for the Graduation Ball on 7 April 2022. This will be a few days after the SUS Appreciation Night (SUSANs), highlighting the work the SUS committees and departments have achieved this academic year.

The other SUS portfolios have been working on many different individual projects. These include the Academic Events Committee, which has been working on creating a map of places Science students can eat on campus. The Mental Health Committee has been putting together a video based on students’ common struggles with mental health. The video will highlight the experiences of professors who want to discuss these topics. The Science Senator has been working hard on the Academic Wellness Proposal project. Consultations of the proposal have taken place at the faculty level and with other Faculty members to understand better how the proposal’s framework will interact with the faculty. Finally, the SUS met with the OSE on Monday, 21 February 2022, to discuss new projects and possible areas of collaboration.

Director Slapcoff said that the OSE met with the SUS. To date, there were 130 presenters at the Undergraduate Annual Poster Showcase to be held on 15 March 2022. She said that everyone inside and outside the McGill community was invited. The event's focus was on students learning to communicate Science or their research to a general audience.

On behalf of the Faculty, Dean Lennox thanked Mr. Bhutkar and the SUS for the comprehensive report on the activities of the SUS.

8. **Science Equity and Climate Committee**

There was no report of the Science Equity and Climate Committee.

9. **Provost’s Action Plan to Address Anti-Black Racism**

The following Report was prepared by Associate Dean (Graduate Education) Laura Nilson and read by Dean Lennox in her absence.

McGill’s My Healthy Workplace (MHW) initiative is launching a pilot program that aligns with the Provost’s Action Plan Against Anti-Black Racism. Though the first things that might come to mind when we think about My Healthy Workplace are physical and mental health and wellness, the initiative actually is broader than that. It aims to make McGill a better workplace by providing opportunities for dialogue with McGill leadership and supporting McGill’s goal of providing a healthy, safe, and productive environment for its employees, based on respect, inclusivity, continuous learning, recognition, and safety. Activities aligned with the ABR plan are therefore a good fit, since they foster a climate in which all our employees and students can feel included in the McGill community and do their best work.

As part of this plan, MHW is launching a mini-course made up of a series of workshops for administrative and support staff, designed to build capacity and confidence in embodying anti-racism practices. This series is targeted to small groups of participants who are committed to engaging with the material. This is a pilot program with limited space. The registration deadline is March 24, 2022 at noon, and selected participants will be notified by April 1, 2022.

Here is the link to the program: [Information session: Anti-Racism Learning Pathway | My Healthy Workplace - McGill University](#)
10. **The New Vic Project Update**

Dean Lennox said that due to the cost pressures during Summer 2021, the Project team had received a detailed redesign of the New Vic Project. The architects redesigned the elements to remove the capacity design but not the capabilities. Consequently, there will be fewer labs, lecture room seats, and less space for graduate students (from 800 to 700). Dean Lennox emphasized that the project's vision remains unchanged and is on track. The architects and the associated professionals are recosting the project, and the Dossier d’affaires (DA) will be submitted in April 2022 to the Québec government for review and final approval. Dean Lennox said that there had been enormous support and contributions from many members of the Faculty of Science and members across the university.

11. **Reports of Associate Deans**

   a) Associate Dean (Academic) Axel Hundemer  
   b) Associate Dean (Student Affairs) Anthony Mittermaier  
   c) Associate Dean (Graduate Education) Laura Nilson  
   d) Associate Dean (Research) John Stix  

   There were no reports from the Associate Deans.

12. **Reports on Actions of Senate**

   - Senator Dima Perepichka: Senate Meeting, 16 February 2022

   The meeting began at 2:30 pm with Dean Maioni presenting a memorial tribute for Professor Mario Bunge, and Dean Lennox presenting memorial tributes for Professors Henry Reiswig and Venamamalai Seshadri.

   Senate adopted the minutes of the last meeting, the report of the Steering Committee and the agenda.

   In the chair’s remarks, Principal Fortier announced that the Administration is exploring the possibility of adjusting the starting date of the Winter semester. A motion to extend the 2020-2021 winter holiday break by one week was discussed at a special meeting of the Senate Steering Committee. It will be presented at the next Senate meeting, on December 2.

   Three formal questions from the Senators were discussed. A question regarding the withdrawal of an Emeritus designation was answered by Provost Manfredi who noted that the withdrawal of the Emeritus designation can take place in case of misconduct in accordance with the Regulations on Retirement of Academic Staff, and where such complaints are lodged, they are to be considered by the Provost. A question regarding the Principal's Message on Academic Freedom and Inclusiveness, which was also answered by Provost Manfredi who noted that while universities extend robust protection to academic freedom, the academic freedom cannot be invoked as a defense in cases where a member of our community is found, after a fair investigation, to have engaged in misconduct. A question regarding the naming of the Men's Varsity Team was answered by Deputy Provost Labeau, who noted that the new name “McGill Redbirds” has been announced yesterday.

   Senate approved the 500th report of the Academic Policy Committee and the report of the Senate Nominating Committee.
Senate approved a motion pertaining to the Calendar of Academic Dates for 2023-24 and proposed revisions to dates for 2021-22 and 2022-23. This will allow for a Fall Reading Break while maintaining contact hours in the Fall semester. The document includes a Fall Reading Break implementation plan.

Senate approved revisions to the Standing Rules of Procedure Governing the Proceedings of the Senate of McGill University.

As the last two items of business, Senate received for information the annual reports for 2019-2020 on the Code of Student Conduct and Disciplinary Procedures and from the Committee on Enrolment and Student Affairs.

The meeting ended at 4:52 p.m.

13. **Members’ Question Period**

   There were no members’ questions.

14. **Other Business**

    There being no further business, Prof. Perepichka **moved**, seconded by Prof. Hurtubise, that the meeting be adjourned at 4:40 p.m.

    **The motion carried.**

    **Next Meeting: Tuesday, 26 April 2022 at 3 p.m.**