Notice of Meeting
Tuesday, March 12, 2019
at 3:00pm – 4:30pm
306 Lumbers

Agenda

1. Call to Order and Approval of Agenda
2. Chair’s Remarks
3. Approval of Minutes of December 11, 2018 meeting
4. Business Arising`
5. Inquiries and Communications
   • Senate Synopsis: meeting of December 13, 2018
   • Senate Synopsis: meeting of January 24, 2019
   • Senate Synopsis: meeting of February 28, 2019
6. Dean’s Report to Council
7. Associate Deans’ and Head of Bethune College Remarks
8. Reports from Science Representatives on Senate Committees
9. Reports from Standing Committees of Council
   9.1 Executive Committee
      9.1.1 Ratification of nomination: Standing Committee of Council
      9.1.3 Call for Expressions of Interest in Membership on Senate Committees and Other Positions Elected by Senate
   9.2 Curriculum Committee (Meeting of January 29, 2019, February 26, 2019 & September 25, 2018) (consent agenda items)
10. Other Business
    • Update on the FSc Decanal Search
Minutes
Tuesday, December 11, 2018
at 3:00pm – 4:30pm
306 Lumbers


Guests: H. McLellan, B. Sheeller & M. Hough

1. Call to Order and Approval of Agenda
   The Chair of Council, P. Wilson called the meeting to order and the Agenda was adopted as presented.

2. Chair’s Remarks
   P. Wilson welcomed Council members and thanked them for their hardwork during the fall term. She went on to wish them all a pleasant holiday season.

3. Approval of Minutes of November 13, 2018 meeting
   The Minutes were approved.

4. Business Arising
   There were no Business Arising.

5. Inquiries and Communications
   Council noted the Senate Synopsis of November 22, 2018.
6. **Dean’s Report to Council**

Don Hastie presented the Dean’s report on behalf of EJ Janse van Rensburg, the interim Dean who was away.

Don Hastie reported that Paul Sanberg, Bryden winner and Science alumnus visited the Faculty on Nov. 19, 2018. He toured the YSciCore Analytical Facility led by Derek Wilson and the Psychology lab for Jennifer Steeves.

The annual BeeCon conference by the Faculties of Science and Environmental Studies was held on Nov. 23, 2018.

Don Hastie congratulated the following faculty members:

- Steven Connor (Biology) received a Canada Research Chair in Neurophysiology (Tier 2).
- George Zoidl (Biology) had his Canada Research Chair in Molecular and Cellular Neuroscience (Tier 1) renewed.

The Associate Dean reminded Council of the following:

- That applications for the third batch of York Science Fellowships was now online and the deadline was January 4, 2019.
- The deadline for the President’s Staff Recognition Awards was January 15, 2019.

He invited everyone to the Faculty of Science Holiday Reception to be held on December 19, 2018, at the Schulich Dining Hall.

Don Hastie announced and encouraged Council members to attend the Honours and Awards Evening to be held on January 16, 2019. He added that the keynote speaker was Samer Bishay, President and CEO of Iristel & Ice Wireless. Samer is a graduate of the Space & Communications program at York University, with an Honours Bachelor of Science Degree.

He concluded his report to Council by wishing everyone a merry holiday season.

7. **Associate Deans’ and Head of Bethune College Remarks**

John Amanatides invited Council members to the Bethune College end of year celebration on December 21st.

8. **Reports from Science Representatives on Senate Committees**

Associate Dean Don Hastie reminded faculty members on the AEF deadline of December 15th and the anomalies exercise deadline for the Dean’s Office, January 10th.

9. **Reports from Standing Committees of Council**

9.1 Executive Committee

Curriculum Committee (consent agenda items)
Council approved the Curriculum Committee items.

10. Other Business

10.1 FSc Decanal Search: Position profile

Council noted the feedback from Lyndon Martin, Chair, FSc Search Committee.

10.2 Regarding the Markham Campus, faculty members expressed concern on the wisdom of pursuing the Markham campus construction through fundraising when the campus’s current laboratories’ problems have not been solved.

Motion was moved, seconded and carried to adjourn the meeting.

Chair of Council, P. Wilson

S. Siyakatshana, Assistant Secretary of Council
The Senate of York University
Synopsis

The 652\textsuperscript{nd} Meeting of Senate
held on Thursday, December 13, 2018

Remarks

On behalf of Senate, the Chair, Professor Franck van Breugel, thanked Senior Assistant Secretary of the University Bob Everett, who is retiring from the Secretariat after 31 years of service, for his decades of shepherding Senate's governance. The Chair highlighted Dr. Everett's unwavering support for Chairs of Senate, Senate committees, Faculty Councils, and faculty and staff across all corners of the University.

Adding her thanks and appreciation, President Lenton highlighted that Dr. Everett is the embodiment of a great governance professional, which is manifested through his ability to bring together diverse points of view, his respect for collegial governance and his thoughtful advice. In recognition of Dr. Everett's service, President Lenton announced that the Senate Chamber will be renamed the Dr. Robert Everett Senate Chamber, thereby embodying his presence for years to come.

Reflecting on the 2018 year, President Lenton acknowledged that it had been a challenging one and the holiday break provides a much-needed opportunity for members of the community to rest and recharge before resuming efforts to move York's vision forward in the New Year.

Other comments made by President Lenton included the following:

- regarding the development of a pan-university internationalization strategy, the plans to distribute the call for expressions of interest to participate in the President's Council on Internationalization and Global Engagement in the New Year
- regarding public policy matters, an update on the COU-led sector-wide advocacy with the provincial government, focused on relationship building with government and mitigating possible budget cuts to universities
- the status of the pan-university budget consultations, which have helped to bring about a stronger shared understanding of the budget and have provided the administration with an opportunity to receive input from the community on budget priorities
- the ongoing discussions with the provincial government, Metrolinx, York Regional Transit, and GO Transit regarding their decision to cease public transit bus service to the Keele Campus
- the recent announcement of the appointment of Professor Lorne Sossin, Osgoode, to the Ontario Superior Court of Justice
The Senate of York University
Synopsis

Approvals

Senate approved the recommendations of its Executive Committee to:

- approve the Statement of Policy on Free Speech, satisfying the provincial government’s requirement that every publicly-assisted college and university develop and implement a free speech policy by January 1, 2019
- appoint Professor David Mutimer, LA&PS, as Interim Vice-Chair of Senate from January 1 to June 30, 2019, for the duration of Vice-Chair Alison Macpherson’s six-month sabbatical

Committee Information Reports

Executive (Professor Alison Macpherson, Vice-Chair)

The Executive Committee’s information item was the following:

- with respect to the Committee’s monitoring of the academic disruption, an update on the status of course completions and grades submissions from the FW 2017-2018 session

Academic Policy, Planning and Research (Professor Les Jacobs, Chair)

APPRC provided information on these items:

- efforts to revise the Principles and Procedures Governing Non-Degree Studies, centred on clarifying the governance process and enhancing oversight of non-degree programming
- consultations regarding the establishment of a new / “revisioned” faculty composed of Geography, the Faculty of Environmental Studies and other possible units
- the Committee’s feedback on the Statement of Policy on Free Speech which had been shared with the Free Speech Policy Working Group
- update on plans for Markham Centre Campus following the announcement of the cancellation of provincial funding for the Campus
- the status of initiatives in progress under the Provost’s purview, including the pan-university budget consultations, enrolment planning with Faculties for FW 2019-2020, the plans to develop an internationalization strategy, the complement renewal strategy, and the decanal searches underway
The Senate of York University

Synopsis

Additional Information about this Meeting

Please refer to the full Senate agenda and supplementary material posted online with the December 13, 2018 meeting for details about these items.

http://secretariat.info.yorku.ca/senate/meeting-agendas-and-synopses/

January Meeting of Senate

Senate’s next meeting will be held at 3:00 p.m. on Thursday, January 24, 2019.
Remarks

The Chair welcomed Professor David Mutimer, LA&PS, who was attending his first Senate meeting in his capacity as Interim Vice-Chair of Senate.

In her report, President Rhonda Lenton referenced the provincial government announcements to:

- cut tuition fees by 10% in 2019-20, followed by a tuition freeze in 2020-21
- introduce changes to the Ontario Student Assistance Program (OSAP) that will affect eligibility, the balance between grants and loans, and some aspects of repayment
- introduce a requirement that some student fees be made optional

Vice-President Finance and Administration Carol McAulay summarized the financial impact of the tuition reduction, estimated to be $46.7M in 2019-2020 and $60.4M in 2020-2021, representing a 4.5% budget cut. As a result, there will be two additional years of deficit in the operating budget through to 2020-2021, when the plan approved by the Board was to achieve a balanced budget by 2019-2020.

President Lenton then turned to an update on applications for Fall 2019, with Provost and Vice-President Academic Lisa Philipps presenting an overview of application statistics from the Ontario Universities’ Application Centre (OUAC). Overall, the total number of direct entry applications to York has decreased by 4.2%, while they have increased across the system by 4.9%, with the biggest drops in first choice and second choice applications. In contrast, international applications to York have increased by 22% (versus a 14.5% increase in the system). Currently, York is eighth in the province in terms of the share of first choice applications, continuing the downward trend in its position over the past ten years, a period during which three major labour disruptions occurred. To restore prospective students’ confidence in choosing to attend York, Provost Philipps highlighted the need for the University community to engage in dialogue about the underlying issues producing tensions and consider approaches to working together collectively to move forward.

President Lenton outlined the next steps to begin overcoming the challenges presented by the tuition reduction – including identifying efficiencies and ways to drive new revenue, and the undertaking of a comprehensive financial analysis – highlighting that the impact of the cut will be shared among all units. With respect to the OSAP changes, President Lenton underlined the importance of York remaining steadfast to its commitment to access, a foundational value for the University.
The Senate of York University

Synopsis

Other comments made by President Lenton included the following:

- the importance of making as much progress as possible on the 2015-2020 University Academic Plan (UAP) as planning begins for the next iteration, especially as the UAP ties into the government consultations on the third round of Strategic Mandate Agreements
- explorations to proceed with Markham Centre Campus continue and an update will be provided at an upcoming Senate meeting

Reports

Academic Colleague to the Council of Ontario Universities

In her first report of the year, the Academic Colleague to the Council of Ontario Universities, Professor Andrea Davis, reported that the focus of its most recent meeting was on free speech on university campuses with various guest speakers contributing to the discussion, including two students from the McMaster Students Union. The student guests highlighted to the Colleagues that faculty should be prepared to broaden free speech considerations to the classroom, in addition to protests and events, as speech occurs in classrooms daily. The Colleagues also explored the concept of safe spaces in the classroom and suggested an alternative option of accountable, brave and courageous spaces, where students may express themselves freely and be socially responsible and accountable for engagement with others.

Approvals

Senate approved recommendations of its Academic Standards, Curriculum and Pedagogy Committee to:

- establish a Stream in Cognitive Neuropsychology within the BA and BSc (Honours) programs in Psychology, Glendon
- establish a full-time option for the Master of Public Policy, Administration & Law, School of Public Policy & Administration, LA&PS / Graduate Studies
- approve changes to the degree requirements for the Master of Design, AMPD / Graduate Studies

Committee Information Reports

Executive (Professor David Mutimer, Interim Vice-Chair)

The Executive Committee presented for discussion a draft proposal for a Special Joint Senate-Board Working Group on Jurisdiction Related to the Cancellation / Suspension of Classes during a Labour Disruption. Senators shared views on the proposal at the meeting and are invited to submit feedback via email to Cheryl Underhill (underhil@yorku.ca) by Friday, February 8 for transmittal to Senate Executive.
The Senate of York University

Synopsis

The Executive Committee's information items included the following:

- the Committee’s monitoring of the academic disruption, including the status of course completions and grades submission from the FW 2017-2018 session
- encouragement for Senators to suggest individuals to serve as external members of the Board of Governors for consideration by the Board Governance and Human Resources Committee; suggestions may be made to the Senators serving on the Board, currently Senators Mutimer and Tourlakis, or to Maureen Armstrong, Secretary to Senate and the Board
- its efforts to establish a review cycle for Senate policies
- a reminder that the call for expressions of interest in membership on Senate committees and other positions elected by Senate has been issued, with the upcoming vacancies on Senate committees and the form to submit nominations available on the Senate webpage under the title Senate Elections

Academic Policy, Planning and Research (Professor Les Jacobs, Chair)

APPRC provided information on these items:

- a reminder of the upcoming ASCP-APPRC Forum of Ideas on Thursday, February 7, with panels to address the various forms of institutional support and resource planning for program development and a keynote address from Alex Usher
- its tracking of 2015-2020 UAP progress and preparations for discussions with the Deans / Principal over spring and fall 2019 on their respective successes and challenges in advancing UAP goals, as well as progress on their Integrated Resource Plans
- the efforts of the Faculty Blue Facilitating Group, which continues to work closely with Geography, the Faculty of Environmental Studies and other relevant parties to cement the Faculty vision, identify options, address hurdles and tackle resource questions
- the work underway on the VPRI-led initiative to develop and implement an Electronic CV (ECV) tool for York Faculty members

Academic Standards, Curriculum and Pedagogy (Professor K. Michasiw, Chair)

ASCP provided an update on its efforts in collaboration with the Registrar’s Office to implement the move from the 9-point to 4-point grading scale, approved in principle by Senate in November 2017. A significant number of policy and operational tasks follow on from this change, including defining the required GPA for progression and graduation
The Senate of York University

Synopsis

and reviewing the current approach to Honours progression through the lens of enhancing student support and success. Broad consultation will be forthcoming.

ASCP also provided information on the following items:

- Minor changes to the degree requirements for the MSc and PhD programs in Biology, Science / Graduate Studies
- Minor change to the admission requirements for the Professional LLM in International Business Law, Osgoode / Graduate Studies

Appeals (Professor Simone Pisana, Chair)

The Appeals Committee presented its annual report on Faculty- and Senate-level petitions and appeals decisions. The Chair noted trends in the petitions and appeals received by Faculties and the Committee, such as the increase in appeals related to academic integrity cases. As the appeals in many academic integrity cases relate to the penalty levied rather than the finding, the Chair encouraged Faculties to provide a clear rationale for their decisions to augment the Appeals Committee’s understanding of the files.

Additional Information about this Meeting

Please refer to the full Senate agenda and supplementary material posted online with the January 24, 2019 meeting for details about these items.

http://secretariat.info.yorku.ca/senate/meeting-agendas-and-synopses/

February Meeting of Senate

Senate’s next meeting will be held at 3:00 p.m. on Thursday, February 28, 2019
The Senate of York University
Synopsis

The 654th Meeting of Senate
held on Thursday, February 28, 2019

Remarks

The Chair, Professor Franck van Breugel, Lassonde, began the meeting by showing Senators a video which explains the statements included in the Indigenous land acknowledgement, the history of the traditional territory of the Indigenous Peoples who called the Keele and Glendon campus lands home before the arrival of the settlers, and the Dish With One Spoon Treaty that covers the area. Jointly produced by the Centre for Aboriginal Student Services at York University, Professor Deborah McGregor, Professor Ruth Koleszar-Green, and Amy Desjarlais, traditional knowledge keeper, the video is available online.

President Rhonda Lenton provided an update on the Student Choice Initiative, announced by government in January, which will introduce a requirement that some student fees be made optional. The Ministry of Training, Colleges and Universities has informed post-secondary institutions that ancillary fees that fund academic supports, student health and wellness and student safety will be considered mandatory. Other fees will be considered optional and universities will be required to set up an online platform where students can opt out of those fees. President Lenton highlighted the importance of a consultative, student-driven discussion and robust process to implement the Student Choice Initiative in order to reach an outcome that achieves full transparency about the fees levied. Three sub-committees will be established to handle the different components of implementation, which will include representation from YFS, YUGSA and the Glendon College Students Association (GCSA). Consultation also will be undertaken with the broader York community.

Other comments made by President Lenton included the following:

- the plans to take up the themes that emerged from the pan-university budget consultation, including deferred maintenance, interdisciplinary scholarship, teaching and learning and the faculty complement, and to hold a budget consultation on an annual basis
- the plans to develop interpretive guidelines for the Statement of Policy on Free Speech, in follow-up to the additional activities and consultations recommended by the Free Speech Policy Working Group, which will be led by a working group with student group representation
- the status of the reviews of the Student Code of Rights & Responsibilities and the Ombuds Office role
- confirmation of the University’s commitment to move ahead with a presence in Markham which is likely to be smaller in scope than originally planned
- appreciation for the contributions of two colleagues who will be departing from the University in the coming months, Vice-President Research & Innovation Robert
Synopsis

Haché, who has been appointed to the position of President and Vice-Chancellor of Laurentian University, and University Secretary and General Counsel Maureen Armstrong, who is retiring

The monthly “Kudos” report on the achievements of members of the York community can be accessed with other documentation for the meeting.

Reports

Academic Colleague to the Council of Ontario Universities

The Academic Colleague to the Council of Ontario Universities, Professor Andrea Davis, reported that the focus of the Academic Colleagues’ most recent meeting was on the new government-mandated changes relating to OSAP, tuition, and ancillary fees. In particular, the Colleagues noted the implementation challenges associated with the Student Choice Initiative and the impact of OSAP changes on mature and graduate students. Also discussed were ideas for collaborative initiatives to mitigate the sense of distrust in the relationship between Ontario universities and the provincial government, including seeking new allies to help change the narrative about universities to the public.

Approvals

On a recommendation from the Executive Committee, Senate approved without amendment the establishment of a Special Joint Senate-Board Working Group on Jurisdiction Related to the Cancellation / Suspension of Classes during a Labour Disruption.

Senate approved a recommendation from the Executive Committee to acclaim Logan Donaldson, Professor, Biology, Science, to the Academic Standards, Curriculum and Pedagogy Committee.

Senate approved recommendations of its Academic Standards, Curriculum and Pedagogy Committee to:

- establish a Graduate Diploma in Law for Law Enforcement Professionals in Osgoode Professional Development, Osgoode / Graduate Studies
- change the requirements for the Certificate in the Discipline of Teaching English as an International Language, Department of English, Glendon
- change to the degree requirements for the BA programs in Human Rights and Equity Studies, Department of Equity Studies, Liberal Arts & Professional Studies
- establish a Graduate Field in Black Studies and Theories of Race and Racism within the MA and PhD programs in Social and Political Thought, Department of Social Science, Liberal Arts & Professional Studies / Graduate Studies
- change the degree requirements for the MA program in Social and Political Thought, Department of Social Science, Liberal Arts & Professional Studies / Graduate Studies
The Senate of York University

Synopsis

- close the BA programs in Multicultural and Indigenous Studies, Department of Equity Studies, Liberal Arts & Professional Studies
- close the BA programs in European Studies, Department of Humanities, Liberal Arts & Professional Studies
- close the BA programs in United States Studies, Department of Humanities, Liberal Arts & Professional Studies
- close the BA programs in Environmental and Health Studies, Department of Multidisciplinary Studies, Glendon
- close the Certificate in Psychometrics, Department of Psychology, Health

Committee Information Reports

Executive (Professor David Mutimer, Interim Vice-Chair)

The Executive Committee’s information items included the following:

- the Committee’s monitoring of the academic disruption, including the status of FW 2017-2018 remediation and provisional grades
- its approval of recommendations from the Sub-Committee on Honorary Degrees and Ceremonials to add individuals to the pool of prospective recipients of honorary degrees

Academic Policy, Planning and Research (Professor Lesley Jacobs, Chair)

APPRC provided information on these items:

- its tracking of 2015-2020 UAP progress and preparations for one-on-one discussions with the Deans / Co-Principals over spring and fall 2019 on their respective successes in advancing UAP goals
- the status of the development of a complement renewal strategy, with a forthcoming opportunity for collegial consultations to be guided by a Provostial Discussion Paper on the topic
- reflections on the ASCP-APPRC Forum of Ideas held on February 7, which focused on program re-visioning and curriculum reform and interdisciplinary / cross-Faculty program development, with further work on the latter area to be taken up under the guidance of the Provost
- the efforts of the Faculty Blue Facilitating Group, which continues to work closely with Geography, the Faculty of Environmental Studies and other relevant parties, to be guided by a Plan of Action for this term
- the work underway on the VPRI-led initiative to develop and implement an Electronic CV (ECV) tool for York Faculty members
The Senate of York University

Synopsis

Academic Standards, Curriculum and Pedagogy (Professor K. Michasiw, Chair)

ASCP provided a Notice of Motion for the establishment of a new degree type, the Master of Management in Artificial Intelligence in the Schulich School of Business, Graduate Studies. ASCP also provided information on the following minor changes to degree or admissions requirements approved by the Committee:

Liberal Arts & Professional Studies

- Minor change to degree requirements for the BA and BCom programs in Information Technology, School of Information Technology
- Minor change to degree requirements for the Honours Minor BA program in Japanese Studies, Department of Language, Literature, and Linguistics
- Minor changes to degree requirements for the Specialized Honours BA and Honours Minor BA programs in Cognitive Science, Department of Philosophy

Lassonde

- Changes to the English-language facility requirement for admission to the BEng programs
- Minor changes to degree requirements for the BEng programs in Civil Engineering, Mechanical Engineering, Space Engineering, and Electrical Engineering
- Minor changes to degree requirements for the BSc in Earth and Atmospheric Science

Academic Policy, Policy and Research / Academic Standards Curriculum and Pedagogy (Professor Kim Michasiw, Co-Chair)

APPRC and ASCP conveyed a report from the Joint Sub-committee on Quality Assurance.

Additional Information about this Meeting

Please refer to the full Senate agenda and supplementary material posted online with the February 28, 2019 meeting for details about these items.

http://secretariat.info.yorku.ca/senate/meeting-agendas-and-synopses/

March Meeting of Senate

Senate’s next meeting will be held at 3:00 p.m. on Thursday, March 28, 2019
Executive Committee Report to Council

Ratification of Nomination

February 5, 2019

Curriculum Committee

Professor Steven Connor: Term: 2019 -2020
Department of Biology
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<th>Committee</th>
<th>Rules of Faculty Council - membership</th>
<th>Meeting time / Membership</th>
<th>Term From</th>
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<td>Senate</td>
<td>According to the York University Secretariat based on the Senate Rules and Procedures governing the size and composition of Senate, the Faculty of Science shall have 9 members, including a minimum of two Chairs. According to The Rules of Council (Science), Faculty representation shall include the Director of Natural Science, three Department Chairs, and terms shall be for three years.</td>
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<td>Senate Executive</td>
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<td>Paul Szepszycki</td>
<td>2018</td>
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<td>Academic Policy, Planning and Research Committee (APPRC)</td>
<td>1 member from FSc</td>
<td>R. Tsuchima, Biology</td>
<td>2017</td>
<td>2020</td>
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<td>Sub-Committee on Honorary Degrees &amp; Ceremonies</td>
<td>1 member from FSc</td>
<td>W. Liu, Math &amp; Statistics</td>
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<td>Executive Committee</td>
<td>The Executive Committee shall be chaired by the Chair of Council and include the Vice-Chair of Council, the Secretary of Council, and one member elected from each of Biology, Chemistry, Mathematics &amp; Statistics, Physics &amp; Astronomy, and Science and Technology Studies/Natural Science, the Dean of the Faculty of Science (ex officio), one student member of Council, and one of the staff members elected to Council.</td>
<td>The Executive Committee will normally meet the first Tuesday of each month (September to May) from 1:30 pm - 3:00 pm in LUM 305B</td>
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<td>Chair of Council</td>
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<td>J. Elwick</td>
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<td>APPC</td>
<td>The Academic Policy and Planning Committee shall include the Dean or designate (ex officio), the Master of Norman Bethune College and one member elected from each of Biology, Chemistry, Mathematics &amp; Statistics, Physics &amp; Astronomy, and Science and Technology Studies/Natural Science, one student member of Council, and one of the staff members elected to Council.</td>
<td>APPC will normally meet the last Thursday of each month (September to April) from 9:00 am - 10:30 am</td>
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<td>Physics &amp; Astronomy</td>
<td>VACANCY</td>
<td>2019</td>
<td>2022</td>
</tr>
<tr>
<td></td>
<td>STS</td>
<td>VACANCY</td>
<td>2019</td>
<td>2022</td>
</tr>
<tr>
<td>Curriculum Committee</td>
<td>The Curriculum Committee shall include the Dean and an Associate Dean (ex officio), the Chair or nominee from each teaching Division or Department, three members elected by Council and two student members of Council.</td>
<td>The Curriculum Committee will normally meet every last Tuesday of each month (September to April) from 1:30 pm - 3:00 pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Member at Large</td>
<td>VACANCY</td>
<td>2019</td>
<td>2022</td>
</tr>
<tr>
<td></td>
<td>Member at Large</td>
<td>VACANCY</td>
<td>2019</td>
<td>2022</td>
</tr>
<tr>
<td></td>
<td>Dean</td>
<td>UJ Janse van Rensburg</td>
<td>Designated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Associate Dean - Students</td>
<td>A. Mills</td>
<td>Designated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Undergraduate Student Rep (two-vacancies)</td>
<td>VACANCIES</td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td></td>
<td>Biology</td>
<td>VACANCY</td>
<td>2017</td>
<td>2020</td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td>VACANCY</td>
<td>2019</td>
<td>2022</td>
</tr>
<tr>
<td></td>
<td>Math &amp; Stats</td>
<td>VACANCY</td>
<td>2019</td>
<td>2022</td>
</tr>
<tr>
<td></td>
<td>Physics &amp; Astronomy</td>
<td>VACANCY</td>
<td>2019</td>
<td>2022</td>
</tr>
<tr>
<td></td>
<td>STS</td>
<td>VACANCY</td>
<td>2019</td>
<td>2022</td>
</tr>
<tr>
<td>Geography</td>
<td>CEAS</td>
<td>CEAS will normally meet every alternate Wed / Thurs from 1:00 - 3:00 pm year round.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Committee Rules of Faculty Council - membership

<table>
<thead>
<tr>
<th>Committee</th>
<th>Rules of Faculty Council - membership</th>
<th>Meeting time / Membership</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>In addition to the above membership of the committee, Council shall elect an alternate member from each of the Departments specified above. The alternate member shall be the person polling the next highest number of votes to those elected to the committee from each Department. The alternate for the student member will be selected by the Science Student Caucus from one of its Members at Large. An alternate can only vote in the event that first elected members are not in attendance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Dean - Students</td>
<td>Designated</td>
<td>2019 - 2020</td>
<td>2017/2018</td>
<td>2020/2021</td>
</tr>
<tr>
<td>Petitions</td>
<td>The Petitions Committee shall consist of an Associate Dean (ex officio), six members of Council, and two student members of Council. A quorum shall consist of either (a) three faculty members and one student member or (b) four faculty members.</td>
<td>The Petition’s Committee has two panels. Each panel meets once a month either on Wednesday from 2:30 pm - 4:00 pm or Thursday from 11:00 am - 1:00 pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Dean, A. Mills</td>
<td>Designated</td>
<td>2019 - 2022</td>
<td>2017/2018</td>
<td>2020/2021</td>
</tr>
<tr>
<td>Member at Large</td>
<td>VACANCY</td>
<td>2019 - 2022</td>
<td>2017/2018</td>
<td>2020/2021</td>
</tr>
<tr>
<td>SRC T &amp; P Committee</td>
<td>The Committee on Tenure and Promotions shall consist of one currently tenured member from each of Biology, Chemistry, Mathematics &amp; Statistics, Physics &amp; Astronomy and Science and Technology Studies/Natural Science elected by Council, and one student member of Council. No member of the Committee shall be a member of another Tenure and Promotions Committee at any time during their tenure on this committee.</td>
<td>SRC T &amp; P Committee will normally meet the last Friday of each month (September to May) from 9:00 am - 11:00 am in LUM 305B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Dean - Faculty</td>
<td>D. Hastie</td>
<td>2019 - 2022</td>
<td>2017/2018</td>
<td>2020/2021</td>
</tr>
<tr>
<td>CoTL</td>
<td>Currently, the Committee on Teaching and Learning shall consist of a minimum of two Faculty members from each department, the Associate Dean – Students, one Librarian, one staff member, one undergraduate student, and two graduate students, in addition to other members invited as provided for by the Rules. Graduate students and staff nominees will indicate their interest in serving on the committee in writing to the committee, who will then approve by majority vote.</td>
<td>CoTL normally meets every third Thursday of each month (September to May) from 1:00 pm - 2:30 pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Dean - Students</td>
<td>Ex Officio</td>
<td>2019 - 2022</td>
<td>2017/2018</td>
<td>2020/2021</td>
</tr>
</tbody>
</table>
### Research & Awards

The Committee on Research and Awards shall consist of one member elected by Council from each of Biology, Chemistry, Mathematics and Statistics, Science and Technology Studies/Natural Science, and Physics and Astronomy, one student member of Council and an Associate Dean (ex officio) who will serve as the Chair.

<table>
<thead>
<tr>
<th>Committee</th>
<th>Rules of Faculty Council - membership</th>
<th>Meeting time / Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Dean - Research &amp; Graduate education</td>
<td>Ex Officio</td>
<td>Designated</td>
</tr>
<tr>
<td>Undergraduate Student Rep</td>
<td>VACANCY</td>
<td>2019 - 2020</td>
</tr>
<tr>
<td>Biology</td>
<td>R. Kwong</td>
<td>2017 - 2020</td>
</tr>
<tr>
<td>Chemistry</td>
<td>VACANCY</td>
<td>2019 - 2022</td>
</tr>
<tr>
<td>Physics &amp; Astronomy</td>
<td>VACANCY</td>
<td>2019 - 2022</td>
</tr>
<tr>
<td>Math &amp; Stats</td>
<td>VACANCY</td>
<td>2019 - 2022</td>
</tr>
<tr>
<td>STS</td>
<td>VACANCY</td>
<td>2019 - 2022</td>
</tr>
</tbody>
</table>

The Research & Awards Committee will meet when grants and awards need to be adjudicated.

### Appeals

The Appeals Committee for the purpose of hearing student appeals shall consist of four elected faculty members from Science units, an Associate Dean (ex officio) and two student members of Council. A quorum shall consist of either (a) two faculty members and one student member or (b) three faculty members.

<table>
<thead>
<tr>
<th>Committee</th>
<th>Rules of Faculty Council - membership</th>
<th>Meeting time / Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Dean - Research &amp; Graduate Education, ex officio</td>
<td>Jennifer Steeves</td>
<td>Designated</td>
</tr>
<tr>
<td>Undergraduate Student Rep</td>
<td>VACANCY</td>
<td>2019 - 2020</td>
</tr>
<tr>
<td>Undergraduate Student Rep</td>
<td>VACANCY</td>
<td>2019 - 2020</td>
</tr>
<tr>
<td>Member at Large</td>
<td>VACANCY</td>
<td>2019 - 2022</td>
</tr>
<tr>
<td>Biology</td>
<td>L. Donaldson</td>
<td>2017 - 2020</td>
</tr>
<tr>
<td>Chemistry</td>
<td>M. Hempstead</td>
<td>2017 - 2020</td>
</tr>
<tr>
<td>Physics &amp; Astronomy</td>
<td>VACANCY</td>
<td>2019 - 2022</td>
</tr>
<tr>
<td>Math &amp; Stats</td>
<td>A. Pietrowski</td>
<td>2018 - 2021</td>
</tr>
<tr>
<td>STS</td>
<td>M.H. Armour</td>
<td>2018 - 2021</td>
</tr>
</tbody>
</table>

Meeting is held once a month and times are polled by the Committee Secretary.
From: Senate Secretaries/Faculty Council Secretaries Info. <>On Behalf Of Cheryl Underhill
Sent: January 28, 2019 11:59 AM
To: SENATE-S@YORKU.CA

Subject: REMINDER: Call for Expressions of Interest in Membership on Senate Committees and Other Positions Elected by Senate

A gentle reminder that this process is still in progress. Your assistance in spreading the word and encouraging nominations is greatly appreciated.

FACULTY COUNCIL COLLEAGUES: The Executive Committee has issued its annual call for expressions of interest in, and nominations for, Senate-elected positions. For details, please see the dedicated "Elections" page accessible from the Senate Website at:

http://secretariat.info.yorku.ca/senate/senate-elections/

Senate nomination guidelines require that Faculty Councils are among those canvassed for suggestions for all positions, even those that are not designated by Faculties. Suggestions would be most welcome from Council committees or individual members of Council.

Expressions of personal interest and nominations of other individuals can be transmitted by means of a form created for this round of elections. Nominators and nominees are asked to review the specific criteria for each of the positions before submitting forms.

Questions about any aspect of the nomination and election process may be addressed to Cheryl Underhill of the University Secretariat (underhil@yorku.ca).

<table>
<thead>
<tr>
<th>Senate Committee or Position*</th>
<th>Vacancies for terms beginning July 1, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senator on the Board of Governors</td>
<td>1 full-time faculty member</td>
</tr>
<tr>
<td>Academic Standards, Curriculum and Pedagogy</td>
<td>2 full-time faculty members</td>
</tr>
<tr>
<td></td>
<td>1 contract faculty member</td>
</tr>
<tr>
<td>Senate Appeals Committee</td>
<td>5 full-time faculty members</td>
</tr>
<tr>
<td>Awards</td>
<td>5 full-time faculty members</td>
</tr>
<tr>
<td>Tenure and Promotions Appeals Committee</td>
<td>3 full-time faculty members</td>
</tr>
<tr>
<td>Tenure and Promotions Committee</td>
<td>3 full-time faculty members</td>
</tr>
</tbody>
</table>

*Senate Executive, Academic Policy, Planning and Research, and the Sub-Committee
on Honorary Degrees and Ceremonials are populated by a process leading to nominations by Faculty Councils.

With thanks,

Cheryl Underhill
Assistant Secretary of the University
Office of the University Secretary & General Counsel
York University
1050 Kanef Tower
416 736-2100 Ext 30335
FACULTY OF SCIENCE
Science Curriculum Committee

AGENDA

Date: 29 January 2019
Time: 1:30 pm - 3:30 pm
Location: 306A Lumbers Building

Meeting 3, 2018/2019

1.1 Minutes

1.1.2 Minutes of the meeting of November 27 2018

1.2 Mathematics and Statistics

1.2.1 Change in calendar description: SC/MATH 2565 3.0 "Introduction to Applied Statistics"

1.3 Physics

1.3.1 Change to retire/expire: SC/PHYS 4110 3.0 "Dynamics of Space Vehicles"

1.3.2 Change in pre-requisite/co-requisite: SC/PHYS 1801 3.0 "Electricity, Magnetism & Optics for Engineers"

1.4 Integrated Science

1.4.1 Change in calendar description and pre-requisite/co-requisite: SC/ISCI 1110 6.0 "Integrated Science (Biology)"

1.4.2 Change in calendar description and pre-requisite/co-requisite: SC/ISCI 1101 3.0 "Integrated Science I (Biology)"

1.4.3 Change in calendar description and pre-requisite/co-requisite: SC/ISCI 1102 3.0 "Integrated Science II (Biology)"

1.4.4 Change in calendar description, degree credit exclusions and pre-requisite/co-requisite: Integrated Science "SC/ISCI 1210 6.0 (Chemistry)"
1.4.5 Change in calendar description and pre-requisite/co-requisite: SC/ISCI 1201 3.0
"Integrated Science I (Chemistry)"

1.4.6 Change in calendar description and pre-requisite/co-requisite: SC/ISCI 1202 3.0
"Integrated Science II (Chemistry)"

1.4.7 Change in calendar description and course credit exclusions: SC/ISCI 1310 6.0
"Integrated Science (Physics)"

1.4.8 Change in calendar description, degree credit exclusions and pre-requisite/co-requisite: SC/ISCI 1301 3.0 "Integrated Science (Physics I)"

1.4.9 Change in calendar description, degree credit exclusions and pre-requisite/co-requisite: SC/ISCI 1302 3.0 "Integrated Science (Physics II)"

1.4.10 Change in calendar description and pre-requisite/co-requisite: "SC/ISCI 1410 6.0
"Integrated Science (Mathematics)"

1.4.11 Change in calendar description and pre-requisite/co-requisite: "SC/ISCI 1401 3.0
"Integrated Science (Mathematics I)"

1.4.12 Change in calendar description and pre-requisite/co-requisite: "SC/ISCI 1402 3.0
"Integrated Science (Mathematics II)"
# Changes to Existing Course

**Faculty:**  
Department: Mathematics and Statistics  
Date of Submission: January 15, 2023

**Course Number:** MATH 2565  
Effective Session: FW 2019/2020

**Course Title:** Introduction to Applied Statistics  

## Type of Change:

- **D** in pre-requisite(s)/co-requisite(s)
- **D** in course number/level
- **D** in credit value
- **D** in title (max. 40 characters for short title)
- **D** in Calendar description (max. 40 words or 200 characters)
- **D** other (please specify): in cross-listing
- **D** in degree credit exclusion(s)
- **D** regularize course (from Special Topics)
- **D** In course format/mode of delivery *
- **D** retire/expire course

## Change From:

The aim of this course is to give students in various disciplines some fundamental tools in statistical inference. Through a mixture of theory given in lecture hours and practice acquired during lab time, the student will understand when and how to use statistical tools such as the z, t or chi-squared tests, regression analysis, analysis of variance and various other techniques.

## To:

The aim of this course is to give students in various disciplines some fundamental tools in statistical inference. Students will understand when and how to use statistical tools such as the z, t or chi-squared tests, regression analysis, analysis of variance and various other techniques. Students will learn how to use the statistical software R for data analysis.
Rationale: As requested by the ITEC undergraduate program director, the change is to emphasize the use of statistical software R in the course.

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant FaculUES/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised 'Course Design' and 'Method of Instruction' information.
Changes to Existing Course

Faculty: SCIENCE

Department: Physics and Astronomy

Date of Submission: October 23, 2019

Course Number: PHYS 4110 3.0

Effective Session: Fall 2019

Course Title: Dynamics of Space Vehicles

Type of Change:
- **D** in pre-requisite(s)/co-requisite(s)
- **D** in course number/level
- **D** in credit value
- **D** in title (max. 40 characters for short line)
- **D** in Calendar description (max. 40 words or 200 characters)
- **D** incross-listing
- **D** in degree credit exclusion(s)
- **D** regularize course (from Special Topics)
- **D** in course format/mode of delivery *
- **D** retire/expire course

**rel** other (please specify): PHYS 4110 3.0 is replaced by LE/ESSE 4110 3.0

Change From:
SC/PHYS 4110 3.0 course has been taught for years by faculty members from Earth Science and Space Engineering

To:
PHYS 4110 3.0 is to be replaced by LE/ESSE 4110 3.0 which will be cross listed as PHYS 4110 3.0.
The course has been taught for years by faculty members from Earth Science and Space Engineering who are now part of the Lassonde School. PHYS 4110 3.0 is to be replaced by LE/ESSE 4110 3.0 which will be cross listed as PHYS 4110 3.0.
Faculty: LE

Department: ESSB

Course Number: LE/ESSB 4110

Acad Credit Weight: AC=3

Effective Date: Fall 2019

Course Title: Dynamics of Space Vehicles

Short Title: Dynamics of Space Vehicles
Expanded Description including topics and theories:

This course presents a coherent and unified framework for mathematical modeling and analysis of space vehicles. The course can be divided into two main parts: orbit dynamics and attitude dynamics and control. The topics covered by this course include two-body problem, coordinate transformation, orbital elements, perturbation theory, orbital maneuvers, relative motion and rendezvous, interplanetary trajectories, rocket dynamics, and attitude dynamics and control. Spacecraft dynamics and control problems of practical interests are treated in a dynamical systems point of view. This course will focus on a comprehensive treatment of spacecraft dynamics and control problems and their practical solutions.

Course Outline (approximate number of lectures, subject to change)

PART I: Orbital Dynamics
1. Overview and Introduction
2. Particle dynamics/dynamics of point mass (2 lectures)
3. Two body problem (-3 lectures)
4. Orbital elements (1 lecture)
5. Coordinate transformations (-1 lecture)
6. Orbital perturbation theory (-1 lecture)
7. Orbital maneuvers (-3 lectures)
8. Relative motion and rendezvous (-1 lecture)
9. Interplanetary trajectories and launch windows (-4 lectures)
10. Rocket vehicle dynamics (-1 lecture)

PART II: Attitude Dynamics and Control
11. Rigid-body dynamics (-2 lectures)
12. Spacecraft attitude dynamics and Control (2-3 lectures)
COUFLSC Learning Outcomes:

List the course learning outcomes/indicators that will be achieved by the end of this course, and map these to the appropriate CEAB graduate attributes and UDLEs.

These course learning outcomes will be assessed and measured in the course for accreditation purposes.

Please select those Degree Level Expectations that will be addressed in the course (see appendix B for definitions).

Undergraduate Degree Level Expectations

- Depth and breadth of knowledge
- Knowledge of methodologies
- Application of knowledge
- Communication skills
- Awareness of limits of knowledge
- Autonomy and professional capacity

Learning outcomes articulate what the student will achieve by the end of the course. They provide a framework for assessment by stating what you expect the learners to be able to demonstrate after completing the course.

A succinct learning outcome specifies the tasks students are expected to be able to perform and the level of competence expected for the tasks.

1. Apply Newton's gravitational law to derive two-body equation for orbit motion [GA2; GA3]

2. Apply momentum conservation law to derive the equations of attitude motion [GA2; GA3]

3. Understand fundamental concepts such as orbital elements, orbital perturbations, interplanetary trajectory design procedure, orbital maneuvers [GA1]

4. Perform coordinate transformations [GA2; GA3]

5. Design and analyze satellite orbits with/without computer software [GA4; GA5]

6. Select and design spacecraft attitude controllers [GA2; GA3; GA4; GA5]
Bibliography:

A READING LIST MUST BE INCLUDED FOR ALL NEW COURSES

The Library has requested that the reading list contain complete bibliographical information such as full name of author, title, year of publication, etc., and that you distinguish between required and suggested readings. A statement is required from the bibliographer responsible for the discipline to indicate whether resources are adequate to support the course.

Also please list any online resources.

If the course is to be integrated (graduate/undergraduate), a list of the additional readings to be required of graduate students must be included. If no additional readings are to be required, a rationale should be supplied.

LIBRARY SUPPORT STATEMENT MUST BE INCLUDE

Required Textbook:


Recommended References


A statement from Engineering Librarian, John Dupuis has been attached to this proposal.
Faculty and Department/Division Approval for CrossListings:

If the course is to be crosslisted with another department/division, this section needs to be signed by all parties. In some cases there may be more than two signatures required (e.g., Mathematics, Women's Studies). In the majority of cases, either the Undergraduate Director or Chair of a unit approves the agreement to cross-list. All relevant signatures must be obtained prior to submission to the Faculty Curriculum Committee.

<table>
<thead>
<tr>
<th>Dept.: ___________________________</th>
<th>Signature (Authorizing crosslist)</th>
<th>Department</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dept.: ___________________________</td>
<td>Signature (Authorizing crosslist)</td>
<td>Department</td>
<td>Date</td>
</tr>
<tr>
<td>Dept.: ___________________________</td>
<td>Signature (Authorizing crosslist)</td>
<td>Department</td>
<td>Date</td>
</tr>
</tbody>
</table>
# Changes to Existing Course

**Faculty:** Science  
**Department:** Physics and Astronomy  
**Date of Submission:** January 21, 2019  
**Course Number:** PHYS 1801 3.0  
**Effective Session:** FW 2019  
**Course Title:** Electricity, Magnetism & Optics for Engineers

## Type of Change:
- D in pre-requisite(s)/co-requisite(s)
- D in course number/level
- O in credit value
- D in title (max. 40 characters for short title)
- O in Calendar description (max. 40 words or 200 characters)
- D other (please specify):

## Change From:

### Prerequisite:
SC/PHYS 1800 3.00

### Corequisites:
SC/MATH 1014 3.00 or SC/MATH 1310 3.00 or SC/MATH 1505 6.00. Course Credit Exclusions: SC/PHYS 1010 6.00, SC/PHYS 1410 6.00, SC/PHYS 1420 6.00; SC/ISCI 1310 6.00.

## To:

### Prerequisite:
SC/PHYS 1800 3.00 and SC/MATH 1013 3.00 or equivalent.

### Corequisites:
SC/MATH 1014 3.00 or SC/MATH 1310 3.00 or SC/MATH 1505 6.00. Course Credit Exclusions: SC/PHYS 1010 6.00, SC/PHYS 1410 6.00, SC/PHYS 1420 6.00; SC/ISCI 1310 6.00; SC/ISCI 1302 3.00.

### SC/Math 1013 3.00 is a required prerequisite for SC/PHYS 1801 3.00. Course credit exclusion's updated to reflect current course offering in Integrated Science.

## Rationale:

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, Instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

**"Note:** If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised "Course Design" and "Method of Instruction" Information.
# Changes to Existing Course

**Faculty:**

**Department:** BIOLOGY  
**Course Number:** SC/ISCI 1110.00  
**Date of Submission:** Jan 29, 2019  
**Effective Session:** FW  
**Course Title:** Integrated Science (Biology)

**Type of Change:**
- D in pre-requisite(s)/co-requisite(s)
- D in course number/level
- D in credit value
- D in title (max. 40 characters for short title)
- D in Calendar description (max. 40 words or 200 characters)
- D other (please specify):

<table>
<thead>
<tr>
<th>Change From:</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course primarily examines foundational topics in biology through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1210.00, SC/ISCI 1310.00, and SC/ISCI 1410.00. This course is Drop by Permission only.</td>
<td>This course primarily examines foundational topics in biology through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1210.00, SC/ISCI 1310.00, and SC/ISCI 1410.00. Registration in this course requires simultaneous registration in SC/ISCI 1210.00, or SC/ISCI 1201.00 and SC/ISCI 1202.00; SC/ISCI 1310.00, or SC/ISCI 1301.00 and SC/ISCI 1302.00; SC/ISCI 1410.00, or SC/ISCI 1401.00 and SC/ISCI 1402.00. This course is Drop by Permission only.</td>
</tr>
<tr>
<td>Corequisites: SC/ISCI 1210.00, or SC/ISCI 1201.00 and SC/ISCI 1202.00; SC/ISCI 1310.00, or SC/ISCI 1301.00 and SC/ISCI 1302.00; SC/ISCI 1410.00, or SC/ISCI 1401.00 and SC/ISCI 1402.00.</td>
<td>Course Credit Exclusion: SC/Biol 1000.00, SC/Biol 1001.00, SC/ISCI 1100.00, SC/ISCI 1102.00</td>
</tr>
</tbody>
</table>
Rationale: To reflect the current changes to the Integrated Science course offering.

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/Departments is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised "Course Design" and "Method of Instruction" information.
Changes to Existing Course

Faculty:
Department: BIOLOGY
Course Number: SC/ISCI 1101 3.00
Date of Submission: JAN 29, 2019
Course Title: INTEGRATED SCIENCE I (BIOLOGY)

Type of Change:
- D in pre-requisite(s)/co-requisite(s)
- D in course number/level
- D in credit value
- D in title (max. 40 characters for short title)
- D in Calendar description (max. 40 words or 200 characters)
- D other (please specify):

Change From:
This course primarily examines foundational topics in biology through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1201 3.00, SC/ISCI 1301 3.00, and SC/ISCI 1401 3.00. This course is Drop by Permission only.

Course Credit Exclusion: SC/Biol 1000 3.00, SC/ISCI 1110 6.0.

To:
This course primarily examines foundational topics in biology through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1201 3.00, SC/ISCI 1301 3.00, and SC/ISCI 1401 3.00.

Registration in this course requires simultaneous registration in SC/ISCI 1102 3.00; SC/ISCI 1210 6.00, or SC/ISCI 1201 3.00 and SC/ISCI 1202 3.00; SC/ISCI 1310 6.00, or SC/ISCI 1301 3.00 and SC/ISCI 1302 3.00; SC/ISCI 1410 6.00, or SC/ISCI 1401 3.00 and SC/ISCI 1402 3.00. This course is Drop by Permission only.

Corequisites: SC/ISCI 1210 6.0 or SC/ISCI 1201 3.00; SC/ISCI 1310 6.0 or SC/ISCI 1301 3.00; SC/ISCI 1410 6.0 or SC/ISCI 1401 3.00.

Course Credit Exclusion: SC/Biol 1000 3.00, SC/ISCI 1110 6.0.
Rationale: Course description update to reflect the current course offering of ISCI courses.

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised 'Course Design' and 'Method of Instruction' information.
# Changes to Existing Course

**Faculty:**

**Department:** BIOLOGY

**Course Number:** SC/ISCI 1102 3.0

**Course Title:** Integrated Science II (Biology)

**Date of Submission:** JAN 29, 2019

**Effective Session:** FW9

**Type of Change:**

- D in pre-requisite(s)/co-requisite(s)
- D in course number/level
- D in credit value
- D in title (max. 40 characters for short title)
- D in Calendar description (max. 40 words or 200 characters)
- D other (please specify):

**Change From:**

This course primarily examines foundational topics in biology through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1202 3.00, SC/ISCI 1302 3.00, and SC/ISCI 1402 3.00. This course is Drop by Permission only.

Course Credit Exclusion: SC/BIOL 1001 3.00, SC/ISCI 1110 6.0.

**To:**

This course primarily examines foundational topics in biology through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1202 3.00, SC/ISCI 1302 3.00, and SC/ISCI 1402 3.00. This course is Drop by Permission only.

Corequisites: SC/ISCI 1210 6.0, or SC/ISCI 1201 3.00, or SC/ISCI 1202 3.00; SC/ISCI 1310 6.0, or SC/ISCI 1301 3.00, or SC/ISCI 1302 3.00; SC/ISCI 1410 6.0, or SC/ISCI 1401 3.00, or SC/ISCI 1402 3.00.

Course Credit Exclusion: SC/BIOL 1001 3.00, SC/ISCI 1110 6.0.
Rationale: To reflect the current changes in the course offering for Integrated Science

Note: For course proposals involving crosslistings, Integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised “Course Design” and “Method of Instruction” information.
Changes to Existing Course

Faculty:

Department: CHEMISTRY  
Course Number: SC/ISCI 1210 6.00  
Course Title: Integrated Science (Chemistry)

Date of Submission: JAN 29, 2019  
Effective Session: 

Type of Change:

- D in pre-requisite(s)/co-requisite(s)  
- D in course number/level  
- D in credit value  
- D in title (max. 40 characters for short title)  
- D in Calendar description (max. 40 words or 200 characters)  
- D other (please specify):

<table>
<thead>
<tr>
<th>Change From:</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course primarily examines foundational topics in chemistry through the lens of contemporary issues in science, integrating, disciplinary knowledge, skills and values from biology, chemistry, physics and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1110 6.0, SC/ISCI 1310 6.0, and SC/ISCI 1410 6.0. This course is Drop by Permission only.</td>
<td>This course primarily examines foundational topics in chemistry through the lens of contemporary issues in science, integrating, disciplinary knowledge, skills and values from biology, chemistry, physics and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1110 6.0, SC/ISCI 1310 6.0, and SC/ISCI 1410 6.0. This course is Drop by Permission only.</td>
</tr>
<tr>
<td>Course Credit Exclusion: SC/CHEM 1000 3.00, SC/CHEM 1001 3.00 Chemical Dynamics, SC/ISCI 1201 3.0, SC/ISCI 1202 3.0</td>
<td></td>
</tr>
</tbody>
</table>
Course Credit Exclusion: SC/CHEM 1000 3.00, SC/CHEM 1001 3.00 Chemical Dynamics, SC/ISCI 1201 3.0, SC/ISCI 1202 3.0 |
Rationale: To reflect the recent changes in the course offering for Integrated Science.

Note: For course proposals involving cross-listings, integrations, and degree credit exclusions, approval from all of the relevant faculties/departments is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised "Course Design" and "Method of Instruction" information.
Changes to Existing Course

Faculty: ____________________________
Department: Chemistry
Course Number: SC/ISCI 1201 3.0
Course Title: Integrated Science I(Chemistry)
Date of Submission: Jan 29, 2019
Effective Session: FW19

Type of Change:

- in pre-requisite(s)/co-requisite(s)
- in course number/level
- in credit value
- in title (max. 40 characters for short title)
- in Calendar description (max. 40 words or 200 characters)
- other (please specify):

Change From:
This course primarily examines foundational topics in chemistry through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SCI/SCI 1101 3.00, SCI/SCI 1301 3.00, and SCI/SCI 1401 3.00. This course is Drop by Permission only. Course Credit Exclusion: Course Credit Exclusion: SCICHEM 1000 3.00, SCI/SCI 12106.00.

To:
This course primarily examines foundational topics in chemistry through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SCI/SCI 1101 3.00, SCI/SCI 1301 3.00, and SCI/SCI 1401 3.00. This course is Drop by Permission only. Course Credit Exclusion: Course Credit Exclusion: SCICHEM 1000 3.00, SCI/SCI 12106.00.
Rationale: To reflect the current changes to the Integrated Science course offering

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, Instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an on-line delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised "Course Design" and "Method of Instruction" information.
Changes to Existing Course

Faculty: Chemistry

Date of Submission: Jan 29, 2019

Effective Session: FW19

Course Title: Integrated Science II (Chemistry)

Type of Change:

- 0 in pre-requisite(s)/co-requisite(s)
- 0 in course number/level
- 0 in credit value
- D in title (max. 40 characters for short title)
- 0 in Calendar description (max. 40 words or 200 characters)
- D other (please specify):

Change From:

This course primarily examines foundational topics in chemistry through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1102 3.00, SC/ISCI 1302 3.00, and SC/ISCI 1402 3.00. This course is Drop by Permission only. Course Credit Exclusion: SC/CHEM 1001 3.00, SC/ISCI 1210 6.00.

To:

This course primarily examines foundational topics in chemistry through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1102 3.00, SC/ISCI 1302 3.00, and SC/ISCI 1402 3.00. This course is Drop by Permission only. Course Credit Exclusion: SC/CHEM 1001 3.00, SC/ISCI 1210 6.00.

Corequisites:

- SC/ISCI 1110 6.00, or SC/ISCI 1102 3.00; SC/ISCI 1310 6.0, or SC/ISCI 1302 3.00; SC/ISCI 1410 6.0, or SC/ISCI 1402 3.00.

Course Credit Exclusion:

- SC/CHEM 1001 3.00, SC/ISCI 1210 6.00.
Rationale: To reflect the current changes to the Integrated Science course offering.

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, Instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

*Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised 'Course Design' and 'Method of Instruction' information.
Changes to Existing Course

Faculty: PHAS
Department: PHAS
Course Number: SC/ISCI 1310 6.00
Date of Submission: January 29, 2019
Effective Session: FW2019
Course Title: Integrated Science (Physics)

Type of Change:
- D in pre-requisite(s)/co-requisite(s)
- D in course number/level
- D in credit value
- D intitle (max. 40 characters for short title)
- D in Calendar description (max. 40 words or 200 characters)
- D other (please specify):
- D in cross-listing
- D in course credit exclusion(s)
- D regularize course (from Special Topics)
- D in course format/mode of delivery *
- D retire/expire course

Change From:
This course primarily examines foundational topics in physics through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in ISCI 1101 3.00, ISCI 1201 3.00, and ISCI 1401 3.00. This course is Drop by Permission only.
Course Credit Exclusion: SC/ISCI 1310 6.00, SC/PHYS 10106.00, SC/PHYS 14106.00, SC/PHYS 14206.00, SC/PHYS 1800 3.00, SC/PHYS 1801 3.00.

To:
This course primarily examines foundational topics in physics through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1110 6.00, or SC/ISCI 1101 3.00 and SC/ISCI 1102 3.00; SC/ISCI 1210 6.00, or SC/ISCI 1201 3.00 and SC/ISCI 1202 3.00; SC/ISCI 1410 6.00, or SC/ISCI 1401 3.00 and SC/ISCI 1402 3.00. This course is Drop by Permission only.
Course Credit Exclusion: SC/ISCI 1310 6.00, SC/PHYS 1010 6.00, SC/PHYS 14106.00, SC/PHYS 1420 6.00, SC/PHY 1000 3.00, SC/PHY 1801 3.00.
Corequisites: SC/ISCI 1110 6.00, or SC/ISCI 1101 3.00 and scncsc1 1102 3.00; SC/ISCI 1210 6.00, or SC/ISCI 1201 3.00 and SC/ISCI 1202 3.00; SC/ISCI 1410 6.00, or SC/ISCI 1401 3.00 and SC/ISCI 1402 3.00.
Course Credit Exclusion: SC/ISCI 1301 3.00, SC/ISCI 1302 3.00, SC/PHYS 1010 6.00, SC PHYS 10113.00, SC/PHYS 1012 3.00, SC/PHYS 14106.00, SC/PHY 1411 3.00, SC/PHY 1412 3.00, SC/PHYS 1420 6.00, SC/PHYS 1421 3.00, SC/PHYS 1422 3.00, SC/PHYS 1800 3.00, SC/PHYS 1801a 3.00.
Rationale: Change in course credit exclusions to reflect the creation of the new 3 credit Physics courses.

Note: For course proposals involving crosslistings, integrations, and degree credit exclusions, approval from all of the relevant faculties/departments is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised "Course Design" and "Method of Instruction" information.
Changes to Existing Course

Faculty:
Department: PHAS
Course Number: SC/ISCI 1301 3.0
Course Title: Integrated Science I (Physics)
Date of Submission: JAN 29, 2019
Effective Session: I

Type of Change:
- D in title (max. 40 characters for short title)
- D in Calendar description (max. 40 words or 200 characters)
- D Incross-listing
- D Indegree credit exclusion(s)
- D regularize course (from Special Topics)
- D In course format/mode of delivery *
- D retire/expire course
- D other (please specify);

Change From:
This course primarily examines foundational topics in physics through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in ISCI 1101 3.00, ISCI 1201 3.00, and ISCI 1401 3.00. This course is Drop by Permission only.

Course Credit Exclusion: SC/ISCI 1310 6.00, SC/PHYS 1010 6.00, SC/PHYS 1410 6.00, SC/PHYS 1420 6.00, SC/PHYS 1800 3.00, SC/PHYS 1801 3.00.

To:
This course primarily examines foundational topics in physics through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in ISCI 1101 3.00, SC/ISCI 1401 3.00, or SC/ISCI 1410 6.00, SC/ISCI 1411 3.00, SC/ISCI 1420 6.00, SC/ISCI 1421 3.00, SC/PHYS 1800 3.00.

Corequisites: SC/ISCI 1110 6.00, or SC/ISCI 1110 3.00; SC/ISCI 1410 6.00, or SC/ISCI 1410 3.00; SC/ISCI 1411 3.00, SC/ISCI 1412 3.00, SC/ISCI 1413 3.00.

Course Credit Exclusion: SC/ISCI 1310 6.00, SC/PHYS 1010 6.00, SC/PHYS 1410 6.00, SC/PHYS 1420 6.00, SC/PHYS 1800 3.00, SC/PHYS 1801 3.00.
Rationale:

To reflect the current changes in the course offering for Integrated Science and Physics.

Note: For course proposals involving cross-listings, integrations, and degree credit exclusions, approval from all of the relevant faculties/departments is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised "course design" and "method of instruction" information.
Changes to Existing Course

Faculty: [Student]
Department: PHAS
Course Number: SC/ISCI 1302 3.00
Course Title: Integrated Science II (Physics)

Type of Change: (D indicates change)
- In pre-requisite(s)/co-requisite(s)
- In course number/level
- In credit value
- In title (max. 40 characters for short title)
- In Calendar description (max. 40 words or 200 characters)
- Other (please specify):

Date of Submission: Jan 29, 2019
Effective Session: FW19

Change From:
This course primarily examines foundational topics in physics through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1102 3.00, SC/ISCI 1202 3.00, and SC/ISCI 1402 3.00. This course is Drop by Permission only. Course Credit Exclusion: SC/ISCI 1310 3.00, SC/PHYS 1010.00, SC/PHYS 1410 6.00, SC/PHYS 1420 6.00, SC/PHYS 1800 3.00, SC/PHYS 1801 3.00.

To:
This course primarily examines foundational topics in physics through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1102 3.00, SC/ISCI 1202 3.00, and SC/ISCI 1402 3.00. This course is Drop by Permission only. Course Credit Exclusion: SC/ISCI 1310 3.00, SC/PHYS 1010 6.00, SC/PHYS 1410 6.00, SC/PHYS 1420 6.00, SC/PHYS 1422 3.00, SC/PHYS 1801 3.00.

Corequisites: SC/JSCI 1110 6.00, or SC/ISCI 1102 3.00; SC/ISCI 1210 6.00, or SC/ISCI 1202 3.00; SC/ISCI 1410 6.00, or SC/ISCI 1402 3.00. This course is Drop by Permission only.

Course Credit Exclusion: SCnSCI 1310 3.00, SC/PHYS 1010.00, SC/PHYS 1410.00, SC/PHYS 1420.00, SC/PHYS 1800-3.00, SC/PHYS 1804-3.40. Course Credit Exclusion: SC/ISCI 1310 3.00, SC/PHYS 1010 6.00, SC/PHYS 1410 6.00, SC/PHYS 1412 3.00, SC/PHYS 1420 6.00, SC/PHYS 14223.00, SC/PHYS 1801 3.00.
Rationale:

To reflect the changes to the course offering for Integrated Science and the changes to the first year Physics course offering.

Note: For course proposals involving cross-listings, Integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an on-line delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised "Course Design" and "Method of Instruction" information.
Changes to Existing Course

Faculty: Department: MATH & STATS
Course Number: SC/ISCI 1410 6.0
Course Title: Integrated Science (Mathematics)

Date of Submission: Jan 29, 2019
Effective Session: FW19

Type of Change:
- in pre-requisite(s)/co-requisite(s)
- in course number/level
- in credit value
- in title (max. 40 characters for short title)
- in Calendar description (max. 40 words or 200 characters)
- other (please specify):

Change From:
This course primarily examines foundational topics in mathematics, through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1110 6.00, SC/ISCI 1210 6.00, and SC/ISCI 1310 6.00. This course is Drop by Permission only.

Course Credit Exclusion: SC/ISCI 1401 3.00, SC/ISCI 1402 3.00, SC/MATH 1013 3.00, SC/MATH 1014 3.00, SC/MATH 1505 6.00.

To:
This course primarily examines foundational topics in mathematics, through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1110 6.00, SC/ISCI 1210 6.00, and SC/ISCI 1310 6.00.

Corequisites: SC/ISCI 1110 6.00, or SC/ISCI 1101 3.00 and SC/ISCI 1102 3.00; SC/ISCI 1210 6.00, or SC/ISCI 1201 3.00 and SC/ISCI 1202 3.00; SC/ISCI 1310 6.00, or SC/ISCI 1301 3.00 and SC/ISCI 1302 3.00.

Course Credit Exclusion: SC/ISCI 1401 3.00, SC/ISCI 1402 3.00, SC/MATH 1013 3.00, SC/MATH 1014 3.00, SC/MATH 1300 3.00, SC/MATH 1310 3.00, SC/MATH 1505 6.00, SC/MATH 1550 6.00.
Rationale: To reflect the current course offering for Integrated Science

Note: For course proposals involving crosslistings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, Instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the Instructions provided on page 4 of the New Course Proposal Form to provide revised "Course Design" and "Method of Instruction" information.
Changes to Existing Course

Faculty: ____________________________ Date of Submission: Jan 29, 2019

Department: Math & Stats

Course Number: SC/ISCI 1401 3.00

Effective Session: FW19

Course Title: Integrated Science I (Mathematics)

Type of Change:

D in cross-listing
D in degree credit exclusion(s)
D regularize course (from Special Topics)
D in course format/mode of delivery *
D retire/expire course

D in pre-requisite(s)/co-requisite(s)

O in course number/level

O in credit value

O in title (max. 40 characters for short title)

D in Calendar description (max. 40 words or 200 characters)

D other (please specify):

Change From:

This course primarily examines foundational topics in calculus through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1101 3.00, SC/ISCI 1201 3.00, and SC/ISCI 1301 3.00. This course is Drop by Permission only. Course Credit Exclusion: SC/ISCI 1410 6.00, SC/MATH 1013 3.00, SC/MATH 1300 3.00, SC/MATH 1505 6.00, SC/MATH 1550 6.0.

To:

This course primarily examines foundational topics in calculus through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1101 3.00, SC/ISCI 1201 3.00, and SC/ISCI 1301 3.00. This course is Drop by Permission only.

Corequisites: SC/ISCI 1110 6.00, or SC/ISCI 1101 3.00; SC/ISCI 1210 6.00, or SC/ISCI 1201 3.00; SC/ISCI 1310 6.00, or SC/ISCI 1301 3.00.

Course Credit Exclusion: SC/ISCI 1410 6.00, SC/MATH 1013 3.00, SC/MATH 1300 3.00, SC/MATH 1505 6.00, SC/MATH 1550 6.0.
Rationale: To reflect the current changes to the Integrated Science course offering.

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all relevant faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

*Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised "Course Design" and "Method of Instruction" information.
Changes to Existing Course

Faculty:
Department: Math & Stats
Course Number: SC/ISCI 1402 3.00
Course Title: Integrated Science II (Mathematics)

Date of Submission: Jan 29, 2019
Effective Session: FW19

Type of Change:
- in pre-requisite(s)/co-requisite(s) D
- in course number/level D
- in credit value D
- in title (max. 40 characters for short 111/e) D
- In Calendar description (max. 40 words or 200 characters) D
- other (please specify): D

Change From:
This course primarily examines foundational topics in calculus through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1102 3.00, SC/ISCI 1202 3.00, and SC/ISCI 1302 3.00. This course is Drop by Permission only. Course Credit Exclusion: SC/ISCI 1410 6.00, SC/MATH 1014 3.00, SC/MATH 1310 3.00, SC/MATH 1505 6.00, MATH 1550 6.0.

To:
This course primarily examines foundational topics in calculus through the lens of contemporary issues in science, integrating disciplinary knowledge, skills and values from biology, chemistry, physics, and mathematics and statistics. Registration in this course requires simultaneous registration in SC/ISCI 1102 3.00, SC/ISCI 1202 3.00, and SC/ISCI 1302 3.00. This course is Drop by Permission only. Course Credit Exclusion: SC/ISCI 1410 6.00, SC/MATH 1014 3.00, SC/MATH 1310 3.00, SC/MATH 1505 6.00, MATH 1550 6.0.

Corequisites: SC/ISCI 1110 6.00, or SC/ISCI 1102 3.00; SC/ISCI 1210 6.0, or SC/ISCI 1202 3.00; SC/ISCI 1310 6.0, or SC/ISCI 1302 3.00.

Course Credit Exclusion: SC/ISCI 1410 6.00, SC/MATH 1014 3.00, SC/MATH 1310 3.00, SC/MATH 1505 6.00, MATH 1550 6.0.
Rationale: To reflect the current changes to the Integrated Science course offering.

Note: For course proposals involving crosslistings, Integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, Instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

1. Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised “Course Design” and “Method of Instruction” information.
FACULTY OF SCIENCE
Science Curriculum Committee

AGENDA

Date: 26 February 2019

Time: 1:30 pm – 3:30 pm

Location: 306A Lumbers Building

Meeting 5, 2018/2019

1.1 Minutes

1.1.2 Minutes of the meeting of January 29 2019

1.2 Chemistry

1.2.1 Change in degree credit exclusion: SC/CHEM 1000 3.00 “Chemical Structure”

1.2.2 Change in degree credit exclusion: SC/CHEM 1001 3.00 “Chemical Dynamics”

1.2.3 Change in pre-requisite: SC/CHEM 2550 3.00 “Pharmacology for Health Sciences”

1.2.4 Change in calendar description: SC/CHEM 3021 3.00 “Intermediate Organic Chemistry II”

1.2.5 Change in calendar description: SC/CHEM 4031 3.00 “Advanced Inorganic Chemistry”

1.3 Physics

1.3.1 Change in degree credit exclusion: SC/PHYS 1800 3.00 “Engineering Mechanics”
## Changes to Existing Course

<table>
<thead>
<tr>
<th>Faculty:</th>
<th>Department:</th>
<th>Date of Submission:</th>
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<td>Chemistry</td>
<td>Feb 21, 2019</td>
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<td>SC/CHEM 1000 3.0</td>
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<tr>
<td>Chemical Structure</td>
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### Type of Change:

- [ ] in pre-requisite(s)/co-requisite(s)
- [ ] in course number/level
- [ ] in credit value
- [x] in degree credit exclusion(s)
- [ ] regularize course (from Special Topics)
- [ ] in course format/mode of delivery *
- [ ] retire/expire course
- [ ] other (please specify):

### Change From:

Course credit exclusions: SC/CHEM 1100 3.00, SC/CHEM 1000 6.00, SC/CHEM 1040 6.00, SC/ISCI 1201 3.00, SC/ISCI 1210 6.00.

### To:

Course credit exclusions: SC/CHEM 1100 3.00, SC/ISCI 1201 3.00, SC/ISCI 1210 6.00.

### Rationale:

CHEM 1000 6.0 and CHEM 1010 6.0 have not been offered in many years.

---

**Note:** For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

**Note:** Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.
# Changes to Existing Course

**Faculty:**

**Department:** Chemistry  
**Date of Submission:** Feb 21, 2019

**Course Number:** SC/CHEM 1001 3.0  
**Effective Session:** FW19

**Course Title:** Chemical Dynamics

### Type of Change:

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<td>retire/expire course</td>
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### Change From:

Course credit exclusions: SC/CHEM 1000 6.00, SC/ISCI 1202 3.00, SC/ISCI 1210 6.00.

### To:

Course credit exclusions: SC/ISCI 1202 3.00, SC/ISCI 1210 6.00.

### Rationale:

CHEM 1000 6.0 has not been offered in many years.

---

**Note:** For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

**Note:** Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.
**Changes to Existing Course**

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<td>☑ in pre-requisite(s)/co-requisite(s)</td>
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<th>Change From:</th>
<th>To:</th>
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<tr>
<td>Prerequisites: SC/CHEM 1550 3.0 or SC/BIO 2020 4.00 or SC/BCHM 2020 4.00. Note: Preference in enrolment will be given to students in the Second Entry Nursing Program. Course Credit Exclusion: SC/SENE 3073 3.00.</td>
<td>Prerequisites: SC/CHEM 1550 3.00 or SC/BIO 2020 3.00 or SC/BCHM 2020 3.00 or SC/BIO 2020 4.00 or SC/BCHM 2020 4.00. Note: Preference in enrolment will be given to students in the Second Entry Nursing Program. Course Credit Exclusion: SC/SENE 3073 3.00.</td>
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**Rationale:** This is to correct an oversight.

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Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.
# Changes to Existing Course

**Faculty:**

**Department:** Chemistry  
**Date of Submission:** Feb 21, 2019  
**Course Number:** SC/CHEM 3021 3.0  
**Effective Session:** FW19  
**Course Title:** Intermediate Organic Chemistry II

**Type of Change:**

- [x] in Calendar description (max. 40 words or 200 characters)  
- [ ] in pre-requisite(s)/co-requisite(s)  
- [ ] in course number/level  
- [ ] in credit value  
- [ ] in title (max. 40 characters for short title)  
- [ ] in cross-listing  
- [ ] in degree credit exclusion(s)  
- [ ] regularize course (from Special Topics)  
- [ ] in course format/mode of delivery *  
- [ ] retire/expire course  
- [ ] other (please specify):

**Change From:**

**Course Description:**
A course building on SC/CHEM 3020 4.00, dealing with a variety of advanced reactions and stereochemistry. Prerequisite: SC/CHEM 3020 3.00.

**To:**

**Course Description:**
A course building on SC/CHEM 3020 3.00, dealing with a variety of advanced reactions and stereochemistry. Prerequisite: SC/CHEM 3020 3.00.

**Rationale:**
The 4-credit version of CHEM 3020 no longer exists.

---

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.
# Changes to Existing Course

**Faculty:**

**Department:** Chemistry  
**Date of Submission:** Feb 21, 2019  
**Course Number:** SC/CHEM 4031 3.0  
**Effective Session:** FW19  
**Course Title:** Advanced Inorganic Chemistry

### Type of Change:

- [ ] in pre-requisite(s)/co-requisite(s)
- [ ] in course number/level
- [ ] in credit value
- [x] in title (max. 40 characters for short title)
- [ ] in Calendar description (max. 40 words or 200 characters)
- [ ] in cross-listing
- [ ] in degree credit exclusion(s)
- [ ] regularize course (from Special Topics)
- [ ] in course format/mode of delivery *
- [ ] retire/expire course
- [ ] other (please specify):

### Change From:

**Course Description:**
Advanced topics in inorganic chemistry, including organometallic, synthesis, reaction types, fluxionality and analysis. Prerequisite: SC/CHEM 3030 3.00; SC/CHEM 3031 3.00 is recommended.

### To:

**Course Description:**
Advanced topics in inorganic chemistry, including organometallic synthesis and characterization, ligand classification, reaction types and catalysis. Prerequisite: SC/CHEM 3030 3.00; SC/CHEM 3031 3.00 is recommended.

**Rationale:**
The new description reflects the newer material taught.

---

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.
Changes to Existing Course

Faculty: Science

Department: Physics and Astronomy

Course Number: PHYS 1800 3.0

Date of Submission: February 22, 2019

Course Title: Engineering Mechanics

Effective Session: FW 2019

Type of Change:

☑ in degree credit exclusion(s)

☐ in pre-requisite(s)/co-requisite(s)

☐ in course number/level

☐ in credit value

☐ in title (max. 40 characters for short title)

☐ in Calendar description (max. 40 words or 200 characters)

☐ other (please specify):

Change From:

Corequisites: SC/MATH 1013 3.00 or SC/MATH 1300 3.00 or SC/MATH 1505 6.00. Course Credit Exclusions: SC/PHYS 1010 6.00, SC/PHYS 1410 6.00, SC/PHYS 1420 6.00; SC/SCI 1310 6.00.

To:

Corequisites: SC/MATH 1013 3.00 or SC/MATH 1300 3.00 or SC/MATH 1505 6.00. Course Credit Exclusions: SC/PHYS 1010 6.00, SC/PHYS 1410 6.00, SC/PHYS 1420 6.00; SC/SCI 1310 6.00; SC/SCI 1301 3.00.

Rationale: Course credit exclusion’s updated to reflect current course offering in Integrated Science.

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an on-line delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised ‘Course Design’ and ‘Method of Instruction’ information.
FACULTY OF SCIENCE

Science Curriculum Committee

AGENDA

Date: 25 September 2018

Time: 1:30 pm – 3:30 pm

Location: 306A Lumbers Building

Meeting 1, 2018/2019

1.5.2 Change in course format/mode of delivery: SC/NATS 1830 6.00 “Mysteries of Everyday Materials”
Changes to Existing Course

Faculty: Science

Department: NATS/STS

Date of Submission: Sept 18, 2018

Course Number: NATS 1830

Effective Session: 19/20

Course Title: Mysteries of Everyday Materials

Type of Change:

- [ ] in pre-requisite(s)/co-requisite(s)
- [x] in course format/mode of delivery *
- [ ] in cross-listing
- [ ] in course number/level
- [ ] in degree credit exclusion(s)
- [ ] in credit value
- [ ] regularize course (from Special Topics)
- [ ] in title (max. 40 characters for short title)
- [ ] retire/expire course
- [ ] in Calendar description (max. 40 words or 200 characters)
- [ ] other (please specify):

Change From:

Inclusion of a laboratory component with every offering.

To:

Flexibility in delivery. Labs may or may not be offered. Learning outcomes are not altered, only the method by which they are addressed. Laboratories re-enforce learning outcomes associated with the lecture component.
### Rationale

It may not always be possible to offer a laboratory component in this course due to resources and/or the need for an online offering. A flexibility in delivery would allow this course to be offered under different situations thus maintaining one of the few chemistry offerings in NATS. It is essential to continue offering NATS courses in many different scientific disciplines regardless of circumstance. The Learning Outcomes will not be altered in the different delivery methods, only the manner in which they are addressed. The laboratory component will usually be offered though as it does strengthen the underlying student understanding of material by linking the theory discussed in lecture to real world (personally relevant) situations/applications. It also brings an experiential education component to the course.

### Information on the laboratory component

- 4-5 labs each term, approximately every other week, that are two hours in duration.
- Maximum of 24 students per lab session.
- 7-8 lab sections (approx. 192 students total in the course)
- Conducted in a wet lab on a lab bench (fume hoods are not required).
- Lab coats and goggles are required
- Demonstrator TA facilitates each lab session. It is estimated that a 0.4 TAship will be required for each lab section.
- A lab technician, likely the individual currently organizing the NATS biology labs, will setup the labs.
- Assignments vary
- Lab component worth no more than 25% of the final grade.

### Finance/Cost/Resources Required

- Undergraduate laboratory space. We have consulted with head BIOL technician Maria Mazzurco and lab space for this course will be available in the Lumbers building starting the 19/20 school year.
- Demonstrator TAs to facilitate the labs
- Technician for setup
- Equipment for laboratories (some equipment already exists or can be borrowed) and consumables (cost which will be kept to a minimum).

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Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.

Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.

- Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an on-line delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised ‘Course Design’ and ‘Method of Instruction’ information.
Memorandum

To: P. Wilson, Chair of Council

From: D. Hastie, Associate Dean, Faculty Affairs

Date: September 27, 2018

Subject: Resource Implication form for NATS 1830

APPC examined the documentation related to the change in course format/mode of delivery for NATS 1830.

The committee had the following concerns

On the cover page the change is from "inclusion of a laboratory component" to "labs may or may not be offered". Page 2 describes the laboratory component but says it may not be possible to offer this. Some clarity here of the actual (or desired) objectives would help.

The resources issue needs significant clarification and some stronger evidence of the ability to mount the labs. 7-8 lab sections is a significant space and technical support commitment. A description of the laboratory equipment required (preferably with a ballpark $ amount) and technical support would be needed.

Vera Pavri is taking these concerns to the Unit.

APPC applauds the attempts to reinvigorate this course, however it would advise that resource issues be dealt with before the course is mounted.

Sincerely,

[Signature]

D. Hastie
Associate Dean, Faculty Affairs
November 7, 2018

Academic Policy and Planning Committee  
Faculty of Science  
York University  
4700 Keele St.  
Toronto, ON  
M3J 1P3

Dr. Golemi-Kotra, Chair of APPC

I have been asked by the Director of the Division of Natural Science, Julie Clark, for lab space that would accommodate a NATS 1830 lab. The course currently has an enrollment of approximately 170 students. If the numbers are maintained for the 2019/20 academic year, it would require a dedicated room that could run between 7-9 lab sections per instructive week. After consultation with the Chair of Biology, Robert Tsushima, and the Operations Manager for Biology, Ming Jiang, it was unanimously decided that we would be able to have NATS 1830 run a student lab in rm. 138 Lumbers. It is a relatively small lab room with seating capacity of 24.

NATS would require a dedicated lab technician to cover all the NATS courses run through Biology. The courses include NATS 1610, 1660, 1690 and 1830 which together, would run out of 3 dedicated lab rooms. They are all 6 credit courses which run the entire academic year. The technical requirement for covering all of NATS through Biology would be at minimum 100% of a full time, 10 month sessional, Band 11 technician.

Biology is also willing to support the NATS 1830 lab by, when possible, sharing equipment that is used in Biology, including retort stands, glassware, water baths and spectrophotometers. NATS 1830 can also share materials and equipment that is used in the other NATS courses. Sharing of equipment, however, is only possible when the use does not affect the course of origin. In order to allow for sharing of equipment, there may have to be some coordinating between the labs that use the same equipment. This is a very common practice in Biology.

I hope that the information provided will help in your decision making process. Please feel free to contact me with any inquiries.

Sincerely,

Maria Mazzurco  
Senior Laboratory Technician, Biology

Hi Dasantila,

I would really like to put a close to this too, but I do not know how the financial aspect at the level of the Deans Office works. I have been told that the funds to pay Uzma will now be under NATS instead of BIOL. Does this help? Do we need to consult with Helen A and Helen M to gain the correct terminology?

Thanks,
Julie

From: Dasantila Golemi-Kotra <dgkotra@yorku.ca>
Organization: York University
Reply-To: "dgkotra@yorku.ca" <dgkotra@yorku.ca>
Date: Monday, February 25, 2019 at 11:10 AM
To: Julie Clark <jclarkj@yorku.ca>
Cc: sciadfac <sciadfac@yorku.ca>, Tianna McFarlane <tiannam@yorku.ca>
Subject: RE: APPC- NATS 1830

Thank you, Julie!
Could you kindly confirm that STS/NATS is picking up the “tab” to pay Uzma’s salary with no concerns. I would like to bring the NATS1830 file up to the incoming APPC meeting for approval.

Many thanks,
Dasantila
Memorandum

To: Faculty of Science Executive Committee
From: Donald R Hastie, Associate Dean, Faculty Affairs
Date: March 1, 2019
Subject: NATS 1830

The Academic and Planning Committee (APPC) flagged the proposal for NATS 1830 as having resource requirements, and as such needed clarification.

The memo from M Mazzurco to APPC (Nov 7 2018) Indicated that laboratory space and equipment is available to run a laboratory component for this course.

An email from J. Clark to APPC (Feb 25 2019) indicated that the Division of Natural Science is aware of the costing of the laboratory to be borne by the Division.

Therefore APPCs concerns have been met and the proposal can go forward.