COUNCIL OF THE FACULTY OF SCIENCE

Notice of Meeting
Tuesday, 8 March 2016
3:00pm – 4:30pm
306 Lumbers

Agenda

1. Call to Order and Approval of Agenda

2. Chair’s Remarks

3. Approval of Minutes from 9 February, 2016 meeting

4. Business Arising

5. Dean’s Remarks

6. Associate Deans’ and Bethune College Master’s Remarks

7. Reports from Science Representatives on Senate Committees

8. Reports from Standing Committees of Council

   8.1 Executive Committee:
       ▪ 2016 – 2017 Vacancies Report on Senate and FSc Committees (item for action)
       ▪ 2016 – 2017 Vacancies Report on Senate and FSc Committees (item for information)

   8.2 Science Curriculum Committee (item for consent; except for items nos. 8.3.1, 8.4.8 and 8.4.9 which are items for action)

9. Inquiries and Communications

   9.1 Senate Synopsis: 623rd Meeting of Senate: 25 February, 2016

10. Other Business
COUNCIL OF THE FACULTY OF SCIENCE

Tuesday, 9 February 2016
3:00pm – 4:30pm
306 Lumbers

Minutes


Regrets:  Almira Mun, W. Booth

1. Call to Order and Approval of Agenda

The Chair of Council, Prof. V. Tsoukanova called the meeting to order.  Due to lack of quorum, the adoption of the Agenda was deferred.

2. Associate Dean’s and Bethune College Master’s Remarks

AD – EJ Janse van Rensburg announced that a call would be going out shortly to YUFA members who wish to retire on 31 December 2016.

3. Chair’s Remarks

There were none.

4. Approval of Agenda

Seeing that there was quorum, the Chair moved a motion to approve the Agenda which was adopted as presented.
5. Approval of Minutes from January 12, 2016 meeting

The minutes were approved as presented.

6. Business Arising

There was no business arising.

7. Dean’s Remarks

Dean Jayawardhana began his remarks by acknowledging the service of the following Science representatives who are on the IIRP working groups:
- Daniel Bacinello – ‘Enhancing the Quality of Teaching & Learning’
- Paula Wilson – ‘Institutional Support for Enhancing Program Quality’
- Almira Mun-Shimoda – ‘Student Advising’
- Helen McLellan – ‘Quality Administrative Services’
- Margaret Hough & Don Hastie – ‘Envisioning the Role of FGS’
- Peter Cribb – ‘Experiential Education’

The Dean congratulated:
- Bridget Stutchbury – recipient of the 2016 President’s Research Excellence Award.
- Carol Bucking - awarded the prestigious Society for Experimental Biology President’s Medal for her research on animal biology and physiology.
- Bach Kim Nguyen - finalist in the Sunnybrook Research Prize competition.

Dean Jayawardhana highlighted the following faculty members who were featured in the media:
- Laurence Packer – The Toronto Star (What can you do with 300,000 dead bees?)
- Amro Zayed – Canadian Geographic
- Paul Delaney & Jesse Rogerson on Planet Nine in CTV, Global, Toronto Sun, Toronto Star, 24 hours

The Dean further informed members that FSc submitted the following nominations for the President’s staff awards:
- The Ronald Kent Medal – 1 nomination
- The President’s Leadership Award – 2 nominations
- The Voice of York Award – 1 nomination
- The Deborah Hobson York Citizenship Award – 1 nomination
- The Harriet Lewis Team Award for Service Excellence – 1 nomination

The Dean informed Council of the following upcoming Events:
- Career Conversations:
  - February 9 – Careers in Math & Statistics
  - February 25 – Leveraging your STEM PhD outside of Academia (for York PhD students and postdocs only)
- March 10 – Science Unplugged @ the Underground. Speakers: Heather Krause (Math & Stat alumna); Sapna Sharma (Asst. Professor – Biology); Alexandra Terrana (PhD student - Physics & Astronomy)

7.1 Endorsement of FSc Strategic Plan

The Dean presented to Council the FSc Strategic Plan for 2015 – 2020, which identifies eighteen specific priorities in five focus areas. The document is the outcome of extensive consultation and input, including:
- CRC retreat, PIFs, FSc Task Force Report
- Open Forum – September 23, 2015
- Departmental meetings & written input
- CoTL discussions and input
- Chairs & Director meetings
- Undergraduate and Graduate student surveys
- Meeting with Postdocs
- Meetings with YUSAN, alumni, Dean’s Advancement Council
- Dean’s update to Council on emerging priorities (November 10, 2015)

A discussion ensued and the Dean answered questions from Council members.

A motion was moved, seconded and carried unanimously to endorse the FSc Strategic Plan.

8. Reports from Science Representatives on Senate Committees

There were no reports.

8.1 Vacuum: Senate Committee for Honorary Degrees and Ceremonials (item for action)

A motion was moved, seconded and carried unanimously to approve Prof. C. Storry to serve on the Senate Committee for Honorary Degrees and Ceremonials.

9. Reports from Standing Committees of Council

8.1 Executive Committee: 2016 – 2017 Vacancies Report on Senate and FSc Committees (item for information)

Council noted the vacancies and members were encouraged to self-nominate for the various vacancies.

8.2 Science Curriculum Committee (consent item)

The Consent Agenda item was deemed approved by Council.

9. Inquiries and Communications

Council noted the 622nd Senate Synopsis.

10. Other Business

10.1 Task Force report on Anomalous Grades (item for action)

Council had a brief discussion on the Task Force report on Anomalous Grades.

The following motion was moved, second and carried unanimously:

“To strike a working group consisting of representatives from each department, representatives from CoTL and CEAS and the Associate Dean - Students to draft an updated Grades Distribution Policy based on the recommendations of the task force on anomalous grades by September 2016”

Meeting adjourned.

Chair of Council, V. Tsoukanova

Recording Secretary of Council, J. Sequeira
2016 – 2017 Executive Committee Report of Vacancies on Senate and FSc Committees

Nominations received as of February 29th, to be ratified by Faculty Council

Department of Science and Technology Studies

Petition’s Committee: D. Lungu (term 2016 – 2019)
T & P Senate Review Committee: D. Lungu (term 2016 – 2019)
APPC: V. Pavri (term 2016 – 2019)
Senate: J. Lazenby (term 2016 – 2019)

Department of Mathematics & Statistics

Senate (Chair vacancy): P. Szeptycki (term 2016 – 2019)
APPC: P. Szeptycki (term 2016 – 2019)
Executive Committee: P. Gibson (term 2016 – 2019)
Curriculum Committee: Y. Fu - Fall term / M. Chen – Winter term (term 2016 – 2019)
**Outstanding vacancies are highlighted in red**

* Sabbatical

**Nominations for ratification at 8 March 2016 Council Meeting**

<table>
<thead>
<tr>
<th>Committee</th>
<th>Rules of Faculty Council - membership</th>
<th>Meeting time / Membership</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<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>
<td>As per Senate website</td>
<td></td>
</tr>
<tr>
<td>Dean</td>
<td>R. Jayawardhana</td>
<td>designated</td>
<td></td>
</tr>
<tr>
<td>Associate Dean - Faculty</td>
<td>EJ Janse van Rensburg</td>
<td>2015 2018</td>
<td></td>
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<tr>
<td>Biology</td>
<td>L. Packer*</td>
<td>2014 2017</td>
<td></td>
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<tr>
<td>Biology</td>
<td>S. Benchimol</td>
<td>2013 2016</td>
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<tr>
<td>Chemistry</td>
<td>D. Hastie</td>
<td>2015 2018</td>
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<tr>
<td>Math &amp; Stats</td>
<td>T. Salisbury</td>
<td>2015 2018</td>
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<tr>
<td>Math &amp; Stats</td>
<td>P. Szeptycki</td>
<td>2016 2019</td>
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<table>
<thead>
<tr>
<th>Committee</th>
<th>FSc Reps on Senate Committees</th>
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</thead>
<tbody>
<tr>
<td>Senate Executive</td>
<td>1 member from FSc</td>
</tr>
<tr>
<td>Academic Policy, Planning and Research Committee (APPRC)</td>
<td>1 member from FSc</td>
</tr>
<tr>
<td>Sub-Committee on Honorary Degrees &amp; Ceremonials</td>
<td>1 member from FSc</td>
</tr>
</tbody>
</table>
## 2016 - 17 Report of Vacancies on Senate and FSc Committees

<table>
<thead>
<tr>
<th>Committee</th>
<th>Rules of Faculty Council - membership</th>
<th>Meeting time / Membership</th>
<th>Term</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Executive Committee</strong></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 (<em>ex officio</em>), 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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<tr>
<td>Chair</td>
<td>N. Madras</td>
<td>2016 - 2017</td>
<td></td>
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<tr>
<td>Vice-Chair</td>
<td>Vacant</td>
<td>2016 - 2017</td>
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<tr>
<td>Dean</td>
<td>Ex officio</td>
<td>2016 - 2017</td>
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<tr>
<td>Asst. Dean - SEM &amp; SEP</td>
<td>Designated</td>
<td>2016 - 2017</td>
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<tr>
<td>Staff Rep</td>
<td>Elected</td>
<td>2016 - 2017</td>
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<tr>
<td>Undergraduate Student Rep</td>
<td>Elected</td>
<td>2016 - 2017</td>
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<tr>
<td>Biology</td>
<td>V. Saridakis</td>
<td>2015 - 2018</td>
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<tr>
<td>Chemistry</td>
<td>R. McLaren</td>
<td>2015 - 2018</td>
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<tr>
<td>Math &amp; Stats</td>
<td>P. Gibson</td>
<td>2016 - 2019</td>
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<tr>
<td>STS</td>
<td>E. Hamm</td>
<td>2013 - 2016</td>
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<tr>
<td><strong>APPC</strong></td>
<td>The Academic Policy and Planning Committee shall include the Dean or designate (<em>ex officio</em>), 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>AD - Faculty</td>
<td>Designated</td>
<td>2016 - 2017</td>
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<tr>
<td>Master - Bethune</td>
<td>Designated</td>
<td>2016 - 2017</td>
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<tr>
<td>Undergraduate Student Rep</td>
<td>Elected</td>
<td>2016 - 2017</td>
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<td>Staff Rep</td>
<td>Elected</td>
<td>2016 - 2017</td>
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<tr>
<td>Biology</td>
<td>S. Benchimol</td>
<td>2013 - 2016</td>
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<td>Chemistry</td>
<td>R. Fournier</td>
<td>2013 - 2016</td>
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<tr>
<td>Math &amp; Stats</td>
<td>P. Szeptycki</td>
<td>2016 - 2019</td>
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<tr>
<td>Physics &amp; Astronomy</td>
<td>E. Hessels</td>
<td>2013 - 2016</td>
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<tr>
<td>STS</td>
<td>V. Pavri</td>
<td>2016 - 2019</td>
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</table>
## Curriculum Committee

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.

<table>
<thead>
<tr>
<th>Member at Large</th>
<th>elected by Council</th>
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</thead>
<tbody>
<tr>
<td>Dean</td>
<td>Ex officio</td>
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<tr>
<td>Associate Dean</td>
<td>designated</td>
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<tr>
<td>Science Librarian</td>
<td></td>
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</tbody>
</table>

### Undergraduate Student Rep (two vacancies)

<table>
<thead>
<tr>
<th>Biology</th>
<th>P. Wilson*</th>
<th>2013</th>
<th>2016</th>
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<tbody>
<tr>
<td>Chemistry</td>
<td>P. Potvin</td>
<td>2013</td>
<td>2016</td>
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### Math & Stats

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<tr>
<td>STS</td>
<td>J. Lazenby</td>
<td>2015</td>
<td>2018</td>
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<tr>
<td>Geography</td>
<td>R. Bello</td>
<td>2013</td>
<td>2016</td>
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### Term

| 2016 - 17 Report of Vacancies on Senate and FSc Committees |

<table>
<thead>
<tr>
<th>Committee</th>
<th>Rules of Faculty Council - membership</th>
<th>Meeting time / Membership</th>
<th>Term</th>
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</thead>
<tbody>
<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 Tuesday from 2:30 pm - 4:00 pm or Thursday from 11:00 am - 1:00 pm</td>
<td>2016 - 2017</td>
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<tr>
<td>Associate Dean</td>
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<td>2016 - 2017</td>
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<tr>
<td>Undergraduate Student Rep</td>
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<td>2016 - 2017</td>
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<td>Undergraduate Student Rep</td>
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<td>2016 - 2017</td>
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<tr>
<td>Biology</td>
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<td>2014 - 2017</td>
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<td>Biology</td>
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<td>Chemistry</td>
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<td>2013 - 2016</td>
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<td>Physics &amp; Astronomy</td>
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<td>Math &amp; Stats</td>
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<td>2015 - 2018</td>
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<td>STS</td>
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<td>2016 - 2019</td>
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<td>STS</td>
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<td>2016 - 2019</td>
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</table>
# 2016 - 17 Report of Vacancies on Senate and FSc Committees

<table>
<thead>
<tr>
<th>Committee</th>
<th>Rules of Faculty Council - membership</th>
<th>Meeting time / Membership</th>
<th>Term From - To</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CEAS</strong></td>
<td>The Committee on Examinations and Academic Standards shall consist of an Associate Dean (<em>ex officio</em>), five members elected by Council from each of Biology, Chemistry, Mathematics &amp; Statistics, Physics &amp; Astronomy and Science and Technology Studies/Natural Science, and one student member of Council. 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>CEAS will normally meet every alternate Wed / Thurs from 1:00 - 3:00 pm year round.</td>
<td>2016 - 17 Report of Vacancies on Senate and FSc Committees</td>
</tr>
<tr>
<td><strong>Biology</strong></td>
<td>Designated Undergraduate Student Rep Elected</td>
<td>2016 2017</td>
<td></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>E. Rosonina / JP Paluzzi</td>
<td>2013 2016</td>
<td></td>
</tr>
<tr>
<td><strong>Math &amp; Stats</strong></td>
<td>G. Audette / J. Rudolph</td>
<td>2015 2018</td>
<td></td>
</tr>
<tr>
<td><strong>Physics &amp; Astronomy</strong></td>
<td>A. Wu / J. Grigull</td>
<td>2014 2017</td>
<td></td>
</tr>
<tr>
<td><strong>STS (MH Armour on Sabbatical Jan - Dec 2017)</strong></td>
<td>B. Quine / N. Bartel</td>
<td>2014 2017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MH Armour* / J. Lazenby</td>
<td>2013/15 2016/18</td>
<td></td>
</tr>
<tr>
<td><strong>Research &amp; Awards</strong></td>
<td>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 (<em>ex officio</em>) who will serve as the Chair.</td>
<td>The Research &amp; Awards Committee will meet when grants and awards need to be adjudicated.</td>
<td></td>
</tr>
<tr>
<td><strong>Associate Dean - Students</strong></td>
<td>Designated Undergraduate Student Rep Elected</td>
<td>2016 2017</td>
<td></td>
</tr>
<tr>
<td><strong>Biology</strong></td>
<td>Undergraduate Student Rep Elected framework</td>
<td>2016 2017</td>
<td></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>Biology Elected</td>
<td>2014 2017</td>
<td></td>
</tr>
<tr>
<td><strong>Math &amp; Stats</strong></td>
<td>V. Tsoukanova</td>
<td>2013 2016</td>
<td></td>
</tr>
<tr>
<td><strong>Physics &amp; Astronomy</strong></td>
<td>C. Bergevin</td>
<td>2015 2018</td>
<td></td>
</tr>
<tr>
<td><strong>STS</strong></td>
<td>R. Metcalfe</td>
<td>2016 2019</td>
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</table>
### SRC T & P Committee

The Committee on Tenure and Promotions shall consist of one currently tenured member from each of Biology, Chemistry, Mathematics & Statistics, Physics & 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.

In addition to the above membership of the committee, Council shall elect an alternate member from each of the Units mandated 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 shall be selected by the Science Student Caucus from one of its Members-at-Large on an annual basis. An alternate can only vote in the event that existing members are not in attendance.

<table>
<thead>
<tr>
<th>Associate Dean - Faculty</th>
<th>Ex Officio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Student Rep</td>
<td>Elected</td>
</tr>
<tr>
<td>Biology</td>
<td>K. Schneider / ALT - G. Zoidl</td>
</tr>
<tr>
<td>Chemistry</td>
<td>D. Golemi-Kotra / ALT - P. Potvin</td>
</tr>
<tr>
<td>Physics &amp; Astronomy</td>
<td>R. Lewis / ATL - P. Hall</td>
</tr>
<tr>
<td>Math &amp; Stats</td>
<td>G. Monette / ALT - S. Watson</td>
</tr>
<tr>
<td>STS / Alternate - VACANT</td>
<td>D. Lungu</td>
</tr>
</tbody>
</table>

### SRC T & P Committee

SRC T & P Committee will normally meet the last Friday of each month (September to March) from 9:00 am - 11:00 am in LUM 305B

### 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>Associate Dean - Research &amp; Graduate education</th>
<th>Ex officio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Student Rep</td>
<td>Elected</td>
</tr>
<tr>
<td>Biology</td>
<td>D. Bazely</td>
</tr>
<tr>
<td>Chemistry</td>
<td>D. Ifa</td>
</tr>
<tr>
<td>Physics &amp; Astronomy</td>
<td>M. Johnson</td>
</tr>
<tr>
<td>Math &amp; Stats</td>
<td>A. Pietrowski</td>
</tr>
<tr>
<td>STS</td>
<td>R. Metcalfe</td>
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</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>2016</th>
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<tbody>
<tr>
<td>Biology</td>
<td>2014</td>
<td>2017</td>
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<tr>
<td>Chemistry</td>
<td>2013</td>
<td>2016</td>
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<tr>
<td>Physics &amp; Astronomy</td>
<td>2015/13</td>
<td>2018/16</td>
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<tr>
<td>Math &amp; Stats</td>
<td>2016</td>
<td>2019</td>
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<tr>
<td>STS / Alternate - VACANT</td>
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</tbody>
</table>
The Faculty of Science Curriculum Committee has reviewed proposals for changes to course information and degree requirements and recommends to the Executive Committee that the following changes be submitted to Council for approval.

Details regarding these proposals (and regarding other minor changes to Calendar/Repository course descriptions and prerequisites which were approved by the Committee but are not reported here) are included in the working papers of February 23, 2016, meeting of the Curriculum Committee, which are on file for your inspection in the Office of the Dean, with all members of the Curriculum Committee or by contacting the Secretary of the Committee at jpearson@yorku.ca.

8.2 Bethune

8.2.1 New Course: SC/BC 1800 3.0 “First Year Success Seminars in Science”

For information only. This course had been approved at the January meeting pending changes to the Rationale and Course Design sections. This submission reflects those changes.

8.3 Biology

8.3.1 Change in degree requirements: BSc Minor in Biology
8.3.2 Retire course: SC/BIOL 3150 3.0 “Microbiology”

8.4 Chemistry

8.4.1 New course: SC/SENE 3091 3.0 “Polymer Technology”
8.4.2 Change in Course Credit Exclusion: SC/CHEM 3090 3.0 “Polymer Chemistry”
8.4.3 New course: SC/SENE 3073 3.0 “Pharmacology and Applied Toxicology”
8.4.4 Change in Course Credit Exclusion: SC/CHEM 2550 3.0 “Pharmacology for Health Sciences”
8.4.5 New course: SC/SENE 3074 3.0 “Pharmaceutical Product Formulations”
8.4.6 New course: SC/SENE 2084 3.0 “Pharmaceutical Analysis”
8.4.7 New course: SC/SENE 3084 3.0 “Pharmaceutical Analysis – Advanced”
8.4.8 Change in degree requirements: “Honours Major BSc in Chemistry” – for information
8.4.9 New degree proposals: Honours Major BSc in Biochemistry; Honours Major-Minor BSc with Major in Biochemistry; Honours Double Major BSc with Major in Biochemistry
8.4.10 Rationale for the SC/SENE course rubric
# COMMITTEE ON ACADEMIC STANDARDS, CURRICULUM AND PEDAGOGY

## TEMPLATE

### NEW COURSE PROPOSAL FORM

<table>
<thead>
<tr>
<th>Faculty: Indicate all relevant Faculty(ies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department: Indicate department and course prefix (e.g. Languages, GER)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethune College, BC</td>
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<table>
<thead>
<tr>
<th>Date of Submission: January 29, 2016</th>
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<table>
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<tr>
<th>Course Number: Special Topics courses Include variance (e.g. HUMA 3000C 6.0, Variance is “C”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC1800</td>
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<tr>
<th>Var: B</th>
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<tr>
<th>Academic Credit Weight: Indicate both the fee, and MTCU weight if different from academic weight (e.g. AC=6, FEE=8, MET=6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
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<table>
<thead>
<tr>
<th>Course Title: The official name of the course as it will appear in the Undergraduate Calendar and on the Repository</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year Success Seminars in Science</td>
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<table>
<thead>
<tr>
<th>Short Title: Appears on any documents where space is limited - e.g. transcripts and lecture schedules - maximum 40 characters</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year Success Seminars in Science</td>
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</table>

With every new course proposal it is the Department’s responsibility to ensure that new courses do not overlap with existing courses in other units. If similarities exist, consultation with the respective departments is necessary to determine degree credit exclusions and/or cross-listed courses.
First Year Success Seminars in Science is designed to help students gain the knowledge, skills, and resourcefulness they will need to be successful Science students at York University. The course will help students adapt to their faculty and university by providing academic skills training, peer-peer connections and a sense of faculty culture. Students will develop skills and individualized learning plans that will help them be successful throughout their time as a student at York. Using the in-class and online environment, students will apply their knowledge through activities, discussions and interactions with staff, faculty and peers.
First Year Success Seminars in Science is designed to help students gain the knowledge, skills, and resourcefulness they will need to be successful Science students at York University. The course will help students adapt to their faculty and university by providing academic skills training, peer-peer connections and a sense of faculty culture. Students will develop skills and individualized learning plans that will help them be successful throughout their time as a student at York.

**Overall Course Learning Objectives:**

Upon successful completion of the course, students will be able to:

- Identify their personal learning goals and develop the strategies and plans necessary to reach those goals
- Adapt and apply academic strategies and learning skills to science and non-science courses at York.
- Apply critical thinking, research and writing skills in the completion of course assignments and other on- and off-campus pursuits.
- Demonstrate the math skills needed for university math courses relevant to their major.
- Utilize university resources and information systems for completing academic courses and in their personal betterment.
- Apply their knowledge of faculty and university procedures and support systems to successfully navigate their course and degree requirements.

This course is divided into eight modules plus completion of an individualized learning plan (ILP), which help draw connections between the information learnt in different modules. Participation online and in-class is a core requirement of each module and is mandatory.

**Module 1: University/Faculty Culture**

This module will: familiarize students with the administrative structure of York and the Faculty, introduce key procedures and deadlines, and help students connect with people and resources that will support them in navigating the above.

**Module 2: Campus Resources**

This module will help students identify and network with key curricular and co-curricular resources on campus.

**Module 3: Learning and Study Skills**

This module will improve student success and efficiency in studying and completing course tasks. In addition, students will become familiar with and utilize Learning Skills Services at York University.

**Module 4: Academic Research and Writing Skills**

This module will help students effectively complete written assignments. Students will be introduced to the types of writing that they are likely to encounter in their discipline and become familiar with the York University libraries.

**Module 5: Resilience**

This module will help students plan for adversity and care for their
mental and physical health while completing their degree.

**Module 6: Numeracy**
In this module students will assess their numeracy (math) skills and create a plan to address any numeracy needs.

**Module 7: Financial Literacy**
In this module students will be provided additional information on financial services at York and budgeting skills.

**Module 8: Life after graduation**
In this module students will receive specialized career information based on their department and develop a career plan.
Course Design:

This course is designed as a blended experience that incorporates both active learning and experiential education components.

Most in-class time will be spent on applying knowledge through activities and interacting with staff, faculty and peers. Therefore material necessary to support active participation will be provided online before in-class meetings. It is expected that students prepare for class by reading and completing all assigned course material/activities.

To qualify as blended at least 1/3 of in-class meetings must be replaced with online instruction. Moodle will also be used to facilitate this instruction – including online discussions, lectures and submission of some assignments. Students will be provided with a customized schedule at the start of term indicating which in-class meetings will be replaced by online/out of class components. To build connectedness to peers and university culture the remaining in-class meetings will be active and focused on interactions and discussions with staff, faculty and peers.

Experiential education helps students apply theory to an experience either in- or out-of class and requires students to reflect upon their learning. Through numerous in-class workshops students will be exposed to the basics of student development theory as well as best practices in student learning, especially as it pertains to the first year experience and transition to university. Students must apply these theories in building their own individualized learning plan which must include interactions with on-campus service providers. Students will also be guided in reflections to build connections between their course learning and on and off-campus success.
**Instruction:**

1. Planned frequency of offering and number of sections anticipated (every year, alternate years, etc.).

2. Number of department members currently competent to teach the course.

3. Instructor(s) likely to teach the course in the coming year.

4. An indication of the number of contact hours (defined in terms of hours, weeks, etc.) involved, in order to indicate whether an effective length of term is being maintained OR in the absence of scheduled contact hours a detailed breakdown of the estimated time students are likely to spend engaged in learning activities required by the course.

<p>| | |</p>
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<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1.</td>
<td>Two sections per year, every year with approximately 20-30 students per section.</td>
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<tr>
<td>2.</td>
<td>The course would ideally be taught by the College Academic Life Coordinator, a faculty member associated with Bethune College however the Master of Bethune College and other Faculty members with training in the first year experience may also be competent to teach the course. Therefore a minimum of 2 faculty members are competent and there are likely 10 -12 in the Faculty of Science that could fulfill this role.</td>
</tr>
<tr>
<td>3.</td>
<td>Tanya R. Da Sylva, College Academic Life Coordinator</td>
</tr>
<tr>
<td>4.</td>
<td>Students will spend 18 – 21 hours in-class, with an additional 12 hours dedicated to online lectures, discussions and activities. The remainder 3 – 6 hours of contact time will be spent in individual advising appointments or at campus workshops (e.g., learning skills) at the direction of the course instructor.</td>
</tr>
</tbody>
</table>
Evaluation:

A detailed percentage breakdown of the basis of evaluation in the proposed course must be provided.

If the course is to be integrated, the additional requirements for graduate students are to be listed.

If the course is amenable to technologically mediated forms of delivery please identify how the integrity of learning evaluation will be maintained. (e.g. will "on-site" examinations be required, etc.)

### Activity/Assignment % of Final Grade

<table>
<thead>
<tr>
<th>Activity/Assignment</th>
<th>% of Final Grade</th>
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<tbody>
<tr>
<td>Participation</td>
<td>15%</td>
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<tr>
<td>- Including</td>
<td></td>
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<tr>
<td>- Information, Research and Literacy Goals Reflection (in-class and online components)</td>
<td></td>
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<tr>
<td>- Financial Literacy Reflection (in-class and online components)</td>
<td></td>
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<tr>
<td>- Campus Services in-class workshop attendance (Library, PCS, Math, Writing Center)</td>
<td></td>
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<tr>
<td>Course Syllabus Activity (online)</td>
<td>3%</td>
</tr>
<tr>
<td>Campus Resources Activity (online)</td>
<td>2%</td>
</tr>
<tr>
<td>Looking Ahead Degree Progress Activity (in-class and online components)</td>
<td>10%</td>
</tr>
<tr>
<td>Time Management Plan (in-class)</td>
<td>5%</td>
</tr>
<tr>
<td>Self Care Plan (in-class)</td>
<td>5%</td>
</tr>
<tr>
<td>Numeracy Plan (in-class and online components)</td>
<td>5%</td>
</tr>
<tr>
<td>Career Goal Plan (in and out of class components)</td>
<td>10%</td>
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<tr>
<td>Passport to Success Certificate Completion (through Learning Skills Services)</td>
<td>10%</td>
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<tr>
<td>Individualized Learning Plan (due in 3 parts throughout the year)</td>
<td>35%</td>
</tr>
</tbody>
</table>

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

We will be reading select chapters from *How to Succeed in University (and Get a Great Job!): Mastering the Critical Skills You Need for School, Work and Life.* by T.R. Klassen and J.A. Dwyer. UBCPress 2015

Readings will be required.

*How to Succeed in University* is available to students as a free [eBook](#)
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 INCLUDED.

Other Resources:
A statement regarding the adequacy of physical resources (equipment, space, etc.) must be appended. If other resources will be required to mount this course, please explain.

COURSES WILL NOT BE APPROVED UNLESS IT IS CLEAR THAT ADEQUATE RESOURCES ARE AVAILABLE TO SUPPORT IT.

The only physical resources needed are classroom space. Spaces that support collaborative work and group discussion would be appreciated. These spaces exist in the Life Sciences Building, TEL and other locations.
**Course Rationale:**

The following points should be addressed in the rationale:

How the course contributes to the learning objectives of the program / degree.

The relationship of the proposed course to other existing offerings, particularly in terms of overlap in objectives and/or content. If inter-Faculty overlap exists, some indication of consultation with the Faculty affected should be given.

The expected enrolment in the course.

First Year Success Seminars in Science is based on best practices in student transitions, engagement, first year experience and foundational skills development.

Enrolment in First Year Success Seminars would help marginal students develop the foundational skills necessary to succeed in their degree. First Year Success Seminars will also help students become connected members of the Faculty and University. Many studies have linked engagement with the University and Faculty to student success, especially for high risk and marginal students. Program specific modules within the course structure would provide further opportunities to focus on skills necessary for core courses. Built in advising opportunities will help keep marginal students on track for success and allow for targeted interventions.

Alf Lizzio’s Five Senses framework is a common set of themes and language that has been useful in designing first-year strategies across the globe. At York University the Five Senses of Success model has been used to help build orientation and first-year programming. Successful student programing will increase student engagement, retention, and academic achievement. To build successful programming Lizzio suggests programming that increases students’ “Senses of Success”.

This course would use the framework of Lizzio’s Five Senses by providing students with:

- An increased sense of connectedness by
  - Providing an enjoyable, interactive, non-threatening learning environment that encourages students to see their department, faculty and university as a community they belong in.
  - Providing purposeful peer-connections and helping students access institutional help and support

- An increased sense of capability and resourcefulness by
  - Providing an individually tailored experience that meets student needs as learners
  - Providing flexibility in access and pace, within a framework that demonstrates to students how they can become self-directed learners
  - Providing challenges that enhance their academic skills base while providing consistent feedback on learning gains and facilitating connections to support providers
  - Providing connection to advising

- An increased sense of purpose by
  - Providing students with a stimulating learning environment where they can see the relevance of their degree path and skill development to future life/career goals and to off-campus pursuits
  - Providing opportunities to explore topics of current scientific interest within their discipline

- An increased sense of culture by
  - Providing and environment that supports and demonstrates the core values of a university: critical thinking and inquiry, academic integrity, collegiality and independence.
**Faculty and Department Approval for Cross-listings:**

If the course is to be cross-listed with another department, this section needs to be signed by all parties. In some cases there may be more than two signatures required (i.e. Mathematics, Women’s Studies). In the majority of the 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 cross-listing)</th>
<th>Department</th>
<th>Date</th>
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Accessible format can be provided upon request.
Changes to Existing Courses & Degree

Department: Biology
Course Number: N/A
Course Title: BSc Minor in Biology
Date of Submission: January 2016
Effective Session: F/W 2016

Type of Change:
- [X] in degree requirements
- [ ] 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)
- [ ] in course format/mode of delivery *
- [ ] in Calendar description (max. 40 words or 200 characters)
- [ ] retire/expire course
- [ ] other (please specify):

Change From:
Honours Minor
SC/BIOL 1000 3.00 and SC/BIOL 1001 3.00 (or SC/BIOL 1010 6.00);
at least 12 credits from biology courses at the 2000 level;
at least 9 credits from biology courses at the 3000 or higher level,
normally including 6 credits at the 4000 level; additional credits from biology courses at the 2000 or higher level, as required for an overall total of at least 30 credits from biology courses.

To:
Honours Minor
SC/BIOL 1000 3.00 and SC/BIOL 1001 3.00 (or SC/BIOL 1010 6.00);
at least 12 credits from biology courses at the 2000 level;
at least 9 credits from biology courses at the 3000 or higher level, including at least 3 credits at the 4000 level;
additional credits from biology courses at the 2000 or higher level, as required for an overall total of at least 30 credits from biology courses.
Faculty requirements for the BSc Honours Major/Minor stipulate a minimum of 30 credits in the minor subject area, normally including at least six credits at the 4000 level.

We are replacing the term "normally" with a clear minimum requirement. We wish to leave as much flexibility as possible for students completing a minor, in terms of the 3000/4000 level requirements, so we are requiring a minimum of 3 4000-level credits rather than 6. Minors are often taken by students interested in a second teachable for a B.Ed.. For those students, arguably having more breadth in lower level courses is more valuable and important than fourth year expertise. In addition, a majority of students in the BSc Biology complete courses in cell/molecular biology. Most fourth year courses in molecular biology require BIOL 3110 and 3130. If such students had to take 6 4000-level credits for the minor, they would be unable to complete other popular and valuable 3000-level courses such as immunobiology, microbiology and virology. Thus a minimum of 3 4000-level credits leaves students a bit more room for added breadth at the 3000 level.

The contribution to DLEs made by 4000-level courses (such as depth of understanding and expertise) will also be provided by courses completed in the major.

Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department/divisions 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 (Form 1) 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 ATSG indicating whether resources are adequate to support the course.
## Changes to Existing Course

**Faculty:** Science  
**Department:** Biology  
**Date of Submission:** Feb. 23, 2016  
**Course Number:** BIOL 3150 3.00  
**Effective Session:** FW16  
**Course Title:** Microbiology

### 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)  
- [x] retire/expire course  
- [ ] in cross-listing  
- [ ] in degree credit exclusion(s)  
- [ ] regularize course (from Special Topics)  
- [ ] in course format/mode of delivery *  
- [ ] other (please specify):

### Change From:

|  
| --- |

### To:

|  
| --- |
Rationale: The 3 credit version of this course has not been offered for many years, and will not be offered in the future. The 4 credit version will continue to be offered.

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.
# COMMITTEE ON ACADEMIC STANDARDS, CURRICULUM AND PEDAGOGY
## TEMPLATE

## NEW COURSE PROPOSAL FORM

<table>
<thead>
<tr>
<th>Faculty:</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Chemistry SENE</td>
</tr>
<tr>
<td>Date of Submission:</td>
<td>Nov. 17, 2015</td>
</tr>
<tr>
<td>Course Number:</td>
<td>3091</td>
</tr>
<tr>
<td>Var:</td>
<td></td>
</tr>
<tr>
<td>Academic Credit Weight:</td>
<td>3</td>
</tr>
</tbody>
</table>

| Course Title: | Polymer Technology |
| Short Title: | Polymer Technology |

With every new course proposal it is the Department’s responsibility to ensure that new courses do not overlap with existing courses in other units. If similarities exist, consultation with the respective departments is necessary to determine degree credit exclusions and/or cross-listed courses.
This subject correlates the structure, properties, applications, processing and fabrications of polymeric materials. Apart from traditional plastic materials, the most advanced plastics and composites used in aircraft, aerospace and automobile industries, body implants and optoelectronics will be discussed. The course includes the waste management, degradation and recycling of plastics for environment protection. The laboratory component emphasizes testing and processing. Not open to students having completed Seneca College course PTC633.
Prerequisite: SC/CHEM 2021 3.0.
Pre- or corequisite: SC/SENE 3092 3.0 (or Seneca course CPM633).
Course credit exclusion: SC/CHEM 3090 3.0.
Expanded Course Description:

Please provide a detailed course description, including topics / theories and learning objectives, as it will appear in supplemental calendars.

Topics
Major polymers: structure, properties, applications
Additives for plastics
Polymeric materials – fabrication
Testing – properties
Degradation and stabilization
Recycling and waste management

Learning Outcomes
Upon successful completion of this course, the student will:

- demonstrate awareness of the main types of polymeric materials used in industry and have some elementary knowledge of their processing
- demonstrate basic knowledge of structure of polymeric materials and how their structure is related to some of their properties
- be able to select a material for specific engineering application
- be able to conduct testing of basic Properties of various polymeric materials: effect of chemical exposure on physical properties as well as on the impact strength of polymeric materials, Charpy and Izod methods of impact resistance to determine the toughness of various thermoplastics (usually PC, HDPE, polypropylene and acrylic), surface abrasion using the Taber Abraser (LDPE and HDPE), Rockwell Hardness test, melting point of polymers and examination of the T<sub>g</sub> and T<sub>m</sub> of polymers, impact resilience of rubber/polymeric materials by Vertical Rebound method
- be able to locate further information about polymeric materials.

Essential Employability Skills

- Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfils the purpose and meets the needs of the audience.
- Respond to written, spoken, or visual messages in a manner that ensures effective communication.
- Execute mathematical operations accurately.
- Apply a systematic approach to solve problems.
- Use a variety of thinking skills to anticipate and solve problems.
- Locate, select, organize, and document information using appropriate technology and information systems.
- Analyze, evaluate, and apply relevant information from a variety of sources.
- Manage the use of time and other resources to complete projects.
Course Design:
Indicate how the course design supports students in achieving the learning objectives. For example, in the absence of scheduled contact hours what role does student-to-student and/or student-to-instructor communication play, and how is it encouraged?

Detail any aspects of the content, delivery, or learning goals that involve “face-to-face” communication, non-campus attendance or experiential education components.

Alternatively, explain how the course design encourages student engagement and supports student learning in the absence of substantial on-campus attendance.

Instruction:
1. Planned frequency of offering and number of sections anticipated (every year, alternate years, etc.).
2. Number of department members currently competent to teach the course.
3. Instructor(s) likely to teach the course in the coming year.
4. An indication of the number of contact hours (defined in terms of hours, weeks, etc.) involved, in order to indicate whether an effective length of term is being maintained OR in the absence of scheduled contact hours a detailed breakdown of the estimated time students are likely to spend engaged in learning activities

Offered as PTC633, administered and monitored by Seneca College. Made available to York students according to availability at Seneca College. Instructors provided by Seneca College.
Evaluation:

A detailed percentage breakdown of the basis of evaluation in the proposed course must be provided.

If the course is to be integrated, the additional requirements for graduate students are to be listed.

If the course is amenable to technologically mediated forms of delivery please identify how the integrity of learning evaluation will be maintained. (e.g. will "on-site" examinations be required, etc.)

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

<table>
<thead>
<tr>
<th>Evaluation</th>
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<tbody>
<tr>
<td>2 Term Tests (15% each) 30%</td>
</tr>
<tr>
<td>Laboratory Reports 40%</td>
</tr>
<tr>
<td>Final Examination 30%</td>
</tr>
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</table>

Offered as PTC633, administered and monitored by Seneca College. Supported by the Seneca College library.

Texts and laboratory manuals made available by Seneca College.
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 INCLUDED.

**Other Resources:**

A statement regarding the adequacy of physical resources (equipment, space, etc.) must be appended. If other resources will be required to mount this course, please explain.

COURSES WILL NOT BE APPROVED UNLESS IT IS CLEAR THAT ADEQUATE RESOURCES ARE AVAILABLE TO SUPPORT IT.

Space and equipment provided and maintained by Seneca College.
Course Rationale:
The following points should be addressed in the rationale:

How the course contributes to the learning objectives of the program / degree.

The relationship of the proposed course to other existing offerings, particularly in terms of overlap in objectives and/or content. If inter-Faculty overlap exists, some indication of consultation with the Faculty affected should be given.

The expected enrolment in the course.

This is one of a series of courses that Seneca College offers its Chemical Engineering Technologist diploma students. It is therefore an existing course. It is a course that offers extensive relevant hands-on experience in the subject matter for its students. Through the Coregistration option, York students will be able to take this course as part of their York degree while being excused from the prerequisites.

Faculty and Department Approval for Cross-listings:
If the course is to be cross-listed with another department, this section needs to be signed by all parties. In some cases there may be more than two signatures required (i.e. Mathematics, Women’s Studies). In the majority of the 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.
Changes to Existing Course

Faculty: Science
Department: Chemistry
Date of Submission: Feb. 17, 2016
Course Number: 3090 3.0
Effective Session: F16
Course Title: Polymer Chemistry

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)
- 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:
Classification and structure of polymers: molecular weights, synthesis, kinetics, statistics, characterization techniques and thermodynamics. Polymers in the solid state, crystallinity and advanced materials. Three lecture hours per week. One term. Three credits. Prerequisites: SC/CHEM 2020 6.00 or SC/CHEM 2021 3.00.

To:

Rationale:
This change results from and is contingent upon the approval of the creation of SC/SENE 3091 3.0, with which there is sufficient overlap to warrant a course credit exclusion.

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.
# COMMITTEE ON ACADEMIC STANDARDS, CURRICULUM AND PEDAGOGY TEMPLATE

## NEW COURSE PROPOSAL FORM

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<tr>
<th>Faculty:</th>
<th>Science</th>
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</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Chemistry SENE</td>
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<tr>
<td>Date of Submission:</td>
<td>Nov. 17, 2015</td>
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<tr>
<td>Course Number:</td>
<td>3073</td>
</tr>
<tr>
<td>Academic Credit Weight:</td>
<td>3</td>
</tr>
<tr>
<td>Course Title:</td>
<td>Pharmacology and Applied Toxicology</td>
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<tr>
<td>Short Title:</td>
<td>Pharmacology and Applied Toxicology</td>
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With every new course proposal it is the Department’s responsibility to ensure that new courses do not overlap with existing courses in other units. If similarities exist, consultation with the respective departments is necessary to determine degree credit exclusions and/or cross-listed courses.
This course is designed to introduce students to basic pharmacological and toxicological principles through the selective coverage of various topics in these areas. The laboratory experiments will focus on commonly used techniques and biological matrices encountered in a pharmacology or toxicology laboratory setting. Not open to students having completed Seneca College course PHT533. 

Prerequisites: SC/CHEM 2021 3.0 and one of SC/BIOL 2020 3.0 or SC/CHEM 2050 4.0 (or Seneca courses CHO433 and BIC433). 

Course credit exclusion: SC/CHEM 2550 3.0.
**Expanded Course Description:**

Please provide a detailed course description, including topics / theories and learning objectives, as it will appear in supplemental calendars.

**Topics**

**Lecture component**

Introduction to pharmacology; autonomic and somatic nervous system (neurotransmitters, receptors and drugs); central nervous system (organization, Parkinson’s disease, depression and mania); cardiovascular system (angina pectoris, congestive heart failure, hypertension); autacoids - prostaglandins (synthesis, physiological effects, clinical use, NSAIDs); hormones, insulin and oral hypoglycemic agents.

Introduction to toxicology; dose-response relationship; toxicokinetics and metabolism of toxic compounds; drugs as toxic compounds; pharmacogenetics; plant and animal toxins.

**Lab component**

Qualitative determination of acetaminophen in blood; quantitative determination of salicylates in blood; extraction of caffeine from plasma using a solid-phase extraction (SPE) technique; determination of caffeine and metabolites in saliva using HPLC; drug screening by TLC; design of clinical studies.

**Learning Outcomes**

- Laboratory-scale manufacture of semi-solid preparations (ointments, creams, pastes and gels).
- Recording of basic organoleptic properties and simple physical tests on each preparation.
- Incorporation of active ingredients.
- Practical study of colloids.
- Determination of critical micelle concentration (CMC).
- Solubilisation of various alcohols by Tween 80.
- Determination of the required HLB value for different oils.
- Preparation of a microemulsion.
- Investigation of the stability of calamine lotion.
- Determination of viscosity for various liquids.

**Essential Employability Skills**

- Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfils the purpose and meets the needs of the audience.
- Respond to written, spoken, or visual messages in a manner that ensures effective communication.
- Execute mathematical operations accurately.
- Apply a systematic approach to solve problems.
- Use a variety of thinking skills to anticipate and solve problems.
- Locate, select, organize, and document information using appropriate technology and information systems.
- Analyze, evaluate, and apply relevant information from a variety of sources.
- Manage the use of time and other resources to complete projects.
- Take responsibility for one’s own actions, decisions, and consequences.
**Course Design:**

Indicate how the course design supports students in achieving the learning objectives. For example, in the absence of scheduled contact hours what role does student-to-student and/or student-to-instructor communication play, and how is it encouraged?

Detail any aspects of the content, delivery, or learning goals that involve “face-to-face” communication, non-campus attendance or experiential education components.

Alternatively, explain how the course design encourages student engagement and supports student learning in the absence of substantial on-campus attendance.

**Instruction:**

1. Planned frequency of offering and number of sections anticipated (every year, alternate years, etc.).

2. Number of department members currently competent to teach the course.

3. Instructor(s) likely to teach the course in the coming year.

4. An indication of the number of contact hours (defined in terms of hours, weeks, etc.) involved, in order to indicate whether an effective length of term is being maintained OR in the absence of scheduled contact hours a detailed breakdown of the estimated time students are likely to spend engaged in learning activities.

Offered as PHT533, administered and monitored by Seneca College. Made available to York students according to availability at Seneca College. Instructors provided by Seneca College.
Evaluation:

A detailed percentage breakdown of the basis of evaluation in the proposed course must be provided.

If the course is to be integrated, the additional requirements for graduate students are to be listed.

If the course is amenable to technologically mediated forms of delivery please identify how the integrity of learning evaluation will be maintained. (e.g. will "on-site" examinations be required, etc.)

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

Offered as PHT533, administered and monitored by Seneca College. Supported by the Seneca College library.

Texts and laboratory manuals made available by Seneca College.
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 INCLUDED.

Other Resources:
A statement regarding the adequacy of physical resources (equipment, space, etc.) must be appended. If other resources will be required to mount this course, please explain.

COURSES WILL NOT BE APPROVED UNLESS IT IS CLEAR THAT ADEQUATE RESOURCES ARE AVAILABLE TO SUPPORT IT.

Space and equipment provided and maintained by Seneca College.
Course Rationale:
The following points should be addressed in the rationale:
How the course contributes to the learning objectives of the program / degree.
The relationship of the proposed course to other existing offerings, particularly in terms of overlap in objectives and/or content. If inter-Faculty overlap exists, some indication of consultation with the Faculty affected should be given.
The expected enrolment in the course.

This is one of a series of courses that Seneca College offers its Chemical Laboratory Technologist (Pharmaceutical) diploma students. It is therefore an existing course.
It is a course that offers extensive relevant hands-on experience in the subject matter for its students.
Through the Coregistration option, York students will be able to take this course as part of their York degree.

Faculty and Department Approval for Cross-listings:
If the course is to be cross-listed with another department, this section needs to be signed by all parties. In some cases there may be more than two signatures required (i.e. Mathematics, Women’s Studies). In the majority of the 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.

Dept: __________________________
Signature (Authorizing cross-listing) Department Date

Dept: __________________________
Signature (Authorizing cross-listing) Department Date

Dept: __________________________
Signature (Authorizing cross-listing) Department Date
Changes to Existing Course

Faculty: Science
Department: Chemistry
Date of Submission: Nov. 17, 2015
Course Number: 2550 3.0
Effective Session: F16
Course Title: Pharmacology for Health Sciences

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:
An introduction to the general principles of pharmacotherapeutics, pharmacokinetics and pharmacodynamics. Prerequisites: SC/CHEM 1550 3.00 or SC/Biol 2020 4.00 or SC/BCHM 2020 4.00. Note: Preference in enrolment will be given to students in the Second Entry Nursing Program.

To:
An introduction to the general principles of pharmacotherapeutics, pharmacokinetics and pharmacodynamics. Prerequisites: SC/CHEM 1550 3.00 or SC/Biol 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 3.0.

Rationale:
This change results from and is contingent upon the approval of the creation of SC/SENE 3073 3.0, with which there is sufficient overlap to warrant a course credit exclusion.

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:**
Indicate all relevant Faculty(ies)

<table>
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**Department:**
Indicate department and course prefix (e.g. Languages, GER)

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<th>Chemistry SENE</th>
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**Course Number:**
Special Topics courses Include variance (e.g. HUMA 3000C 6.0, Variance is “C”)

<table>
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<th>Var:</th>
<th>Academic Credit Weight: Indicate both the fee, and MTCU weight if different from academic weight (e.g. AC=6, FEE=8, MET=6)</th>
<th>3</th>
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**Course Title:**
The official name of the course as it will appear in the Undergraduate Calendar and on the Repository

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<th>Pharmaceutical Product Formulations</th>
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**Short Title:**
Appears on any documents where space is limited - e.g. transcripts and lecture schedules - maximum 40 characters

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*With every new course proposal it is the Department’s responsibility to ensure that new courses do not overlap with existing courses in other units. If similarities exist, consultation with the respective departments is necessary to determine degree credit exclusions and/or cross-listed courses.*
This course focuses mainly on the formulation of pharmaceutically relevant semi-solid and liquid preparations with particular emphasis on emulsions. Both theoretical and practical aspects will be covered, with laboratory practicals designed to emphasize theoretical concepts. Not open to students having completed Seneca College course PPF633.

Prerequisites: SC/CHEM 2021 3.0 (or Seneca course PHA333).

**Generic Course Description:**

This is the description of the "Parent / Generic course" for Special Topics courses under which variances of the "Generic" course can be offered in different years (Max. 40 words). Generic course descriptions are published in the calendar.

List all degree credit exclusions, prerequisites, integrated courses, and notes below the course description.
### Topics

#### Lecture component

- Introduction to formulation and pre-formulation studies.
- Colloidal dispersions, with emphasis on aerosols.
- Coarse dispersions: emulsions and suspensions.
- Percutaneous absorption and transdermal drug delivery systems.
- Rheology: the study of flow.
- If time permits: syrups, elixirs, parenteral products, injections and eye drops.

#### Lab component

- Laboratory-scale manufacture of semi-solid preparations (ointments, creams, pastes and gels).
- Recording of basic organoleptic properties and simple physical tests on each preparation.
- Incorporation of active ingredients.
- Practical study of colloids.
- Determination of critical micelle concentration (CMC).
- Solubilisation of various alcohols by Tween 80.
- Determination of the required HLB value for different oils.
- Preparation of a microemulsion.
- Investigation of the stability of calamine lotion.
- Determination of viscosity for various liquids.

### Learning Outcomes

- Demonstrate comprehension of the general terminology used in the development and manufacturing of semi-solid, liquid and aerosol formulations.
- Describe the basic strategies for semi-solid, liquid and aerosol formulation development based on manufacturing ease, efficacy, quality, patient compliance and drug safety.
- Identify and describe the basic phases/steps of a drug submission process.
- Demonstrate comprehension of the key critical physical and chemical parameters of API and excipients used in a formulation.
- Describe the overall BCS (Biopharmaceutics Class System) specifically relating bioavailability and solubility of a drug molecule.
- Apply the general concepts of the BCS system to rudimentary concepts of drug adsorption and drug plasma concentrations plots.
- Define what is meant by a dispersion, colloid, emulsion and a micelle. Describe the general properties of dispersions (optical, physical, electrical, and classification).
- Be able to create a variety of different ointments, creams, pastes and gels in a laboratory setting. Demonstrate comprehension of testing procedures for each type of preparation.
- Describe and understand the differences between different colloidal classifications. Demonstrate comprehension of the contributions of ions, counter-ions, slip plane and the ion cloud as it applies to dispersions.
- Identify and describe the key properties of emulsifiers. Use emulsifiers in a laboratory setting to creation of colloidal dispersions/emulsions. Describe and apply the HLB system (hydrophilic lipophilic balance) to predict the stability of emulsions.
Demonstrate comprehension of the basic concepts of micelle formation and be able to determine CMC (critical micelle concentration) in a laboratory setting.

Describe the various theories that account for the complex structure and formation of stable emulsions/micelles. Demonstrate comprehension of the contributions of ionic and non-ionic surfactants to stability.

Describe a variety of different devices used to deliver aerosols.

Describe in detail, the structure and function of the skin and the different ways that drug is absorbed through the skin.

Apply the understanding of skin absorption to transdermal patch drug delivery. Demonstrate comprehension of the limitations and formulation strategies for transdermal products.

Demonstrate comprehension of the different types of rheological properties of semi-solid and liquid formulations.

**Essential Employability Skills**

- Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfils the purpose and meets the needs of the audience.
- Respond to written, spoken, or visual messages in a manner that ensures effective communication.
- Execute mathematical operations accurately.
- Apply a systematic approach to solve problems.
- Use a variety of thinking skills to anticipate and solve problems.
- Locate, select, organize, and document information using appropriate technology and information systems.
- Analyze, evaluate, and apply relevant information from a variety of sources.
- Manage the use of time and other resources to complete projects.
- Take responsibility for one's own actions, decisions, and consequences.
Course Design:
Indicate how the course design supports students in achieving the learning objectives. For example, in the absence of scheduled contact hours what role does student-to-student and/or student-to-instructor communication play, and how is it encouraged?

Detail any aspects of the content, delivery, or learning goals that involve "face-to-face" communication, non-campus attendance or experiential education components.

Alternatively, explain how the course design encourages student engagement and supports student learning in the absence of substantial on-campus attendance.

Instruction:
1. Planned frequency of offering and number of sections anticipated (every year, alternate years, etc.).

2. Number of department members currently competent to teach the course.

3. Instructor(s) likely to teach the course in the coming year.

4. An indication of the number of contact hours (defined in terms of hours, weeks, etc.) involved, in order to indicate whether an effective length of term is being maintained OR in the absence of scheduled contact hours a detailed breakdown of the estimated time students are likely to spend engaged in learning activities required by the course.

Offered as PPF633, administered and monitored by Seneca College. Made available to York students according to availability at Seneca College. Instructors provided by Seneca College.
Evaluation:

A detailed percentage breakdown of the basis of evaluation in the proposed course must be provided.

If the course is to be integrated, the additional requirements for graduate students are to be listed.

If the course is amenable to technologically mediated forms of delivery please identify how the integrity of learning evaluation will be maintained. (e.g. will "on-site" examinations be required, etc.)

Bibliography:

A READING LIST MUST BE INCLUDED FOR ALL NEW COURSES

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Also please list any online resources.

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LIBRARY SUPPORT STATEMENT MUST BE INCLUDED.

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<tr>
<td>Laboratory Reports</td>
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<tr>
<td>Final Examination</td>
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Texts and laboratory manuals made available by Seneca College.
Other Resources:
A statement regarding the adequacy of physical resources (equipment, space, etc.) must be appended. If other resources will be required to mount this course, please explain.

Courses will not be approved unless it is clear that adequate resources are available to support it.

Space and equipment provided and maintained by Seneca College.

Course Rationale:
The following points should be addressed in the rationale:

How the course contributes to the learning objectives of the program / degree.

The relationship of the proposed course to other existing offerings, particularly in terms of overlap in objectives and/or content. If inter-Faculty overlap exists, some indication of consultation with the Faculty affected should be given.

The expected enrolment in the course.

This is one of a series of courses that Seneca College offers its Chemical Laboratory Technologist (Pharmaceutical) diploma students. It is therefore an existing course. It is a course that offers extensive relevant hands-on experience in the subject matter for its students. Through the Coregistration option, York students will be able to take this course as part of their York degree.
Faculty and Department Approval for Cross-listings:

If the course is to be cross-listed with another department, this section needs to be signed by all parties. In some cases there may be more than two signatures required (i.e. Mathematics, Women’s Studies). In the majority of the 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.

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# COMMITTEE ON ACADEMIC STANDARDS, CURRICULUM AND PEDAGOGY 
## TEMPLATE 
### NEW COURSE PROPOSAL FORM

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<td>Short Title:</td>
<td>Pharmaceutical Analysis</td>
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*With every new course proposal it is the Department’s responsibility to ensure that new courses do not overlap with existing courses in other units. If similarities exist, consultation with the respective departments is necessary to determine degree credit exclusions and/or cross-listed courses.*
This is a one-semester laboratory oriented subject intended to introduce students to the world of pharmaceutical analysis. Selected physical and chemical techniques used in the control of raw materials and finished dosage forms are emphasized, especially USP and BP methods. Students should be aware that this course does not attempt to teach basic science but instead encourages students to apply their previously acquired knowledge, especially of chemistry and mathematics, in the pharmaceutical laboratory. Not open to students having completed Seneca College course PHA333.

Prerequisites: SC/CHEM 1000 3.0, SC/CHEM 1001 3.0 and SC/MATH 1014 3.0 (or Seneca courses CHM 273 and MTH 273).

Generic Course Description:

This is the description of the “Parent / Generic course” for Special Topics courses under which variances of the “Generic” course can be offered in different years (Max. 40 words). Generic course descriptions are published in the calendar.

List all degree credit exclusions, prerequisites, integrated courses, and notes below the course description.
### Expanded Course Description:

Please provide a detailed course description, including topics / theories and learning objectives, as it will appear in supplemental calendars.

### Learning Outcomes

Upon successful completion of this course, the student will be able to:

- demonstrate familiarity with Good Manufacturing Practice (GMP) regulations, as it relates to quality control laboratory data acquisition, record keeping and good documentation practices
- successfully carry out and complete various laboratory exercises emphasizing the analysis of pharmaceutical raw materials, in-process tests and finished product tests
- follow Standard Operating Procedures (SOPs) within the pharmaceutical laboratory
- write Certificate of Analysis (C of A), long term stability protocols and reports for drug substances and finished products
- apply knowledge from chemistry and mathematics towards interpreting the Pharmacopoeial compendia (e.g., BP and USP-NF, USP Supplements and on-line USP Reference Standard Catalogue)
- completely and correctly solve pharmaceutical calculations such as % purity and % label claim
- demonstrate use of chemical and pharmaceutical software/firmware such as ChemStation UV-Vis software and VanKel Dissolution apparatus firmware.

### Essential Employability Skills

- Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfils the purpose and meets the needs of the audience.
- Respond to written, spoken, or visual messages in a manner that ensures effective communication.
- Execute mathematical operations accurately.
- Apply a systematic approach to solve problems.
- Use a variety of thinking skills to anticipate and solve problems.
- Locate, select, organize, and document information using appropriate technology and information systems.
- Analyze, evaluate, and apply relevant information from a variety of sources.
- Manage the use of time and other resources to complete projects.
- Take responsibility for one’s own actions, decisions, and consequences.
**Course Design:**

Indicate how the course design supports students in achieving the learning objectives. For example, in the absence of scheduled contact hours what role does student-to-student and/or student-to-instructor communication play, and how is it encouraged?

Detail any aspects of the content, delivery, or learning goals that involve “face-to-face” communication, non-campus attendance or experiential education components.

Alternatively, explain how the course design encourages student engagement and supports student learning in the absence of substantial on-campus attendance.

**Instruction:**

1. Planned frequency of offering and number of sections anticipated (every year, alternate years, etc.).

2. Number of department members currently competent to teach the course.

3. Instructor(s) likely to teach the course in the coming year.

4. An indication of the number of contact hours (defined in terms of hours, weeks, etc.) involved, in order to indicate whether an effective length of term is being maintained OR in the absence of scheduled contact hours a detailed breakdown of the estimated time students are likely to spend engaged in learning activities required by the course.

**Evaluation:**

30% midterm

Offered as PHA333, administered and monitored by Seneca College. Made available to York students according to availability at Seneca College. Instructors provided by Seneca College.
A detailed percentage breakdown of the basis of evaluation in the proposed course must be provided.

If the course is to be integrated, the additional requirements for graduate students are to be listed.

If the course is amenable to technologically mediated forms of delivery please identify how the integrity of learning evaluation will be maintained. (e.g. will "on-site" examinations be required, etc.)

40% final examination
30% laboratory work and assignments

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 INCLUDED.

Offered as PHA333, administered and monitored by Seneca College. Supported by the Seneca College library.

Texts and laboratory manuals made available by Seneca College.
Other Resources:
A statement regarding the adequacy of physical resources (equipment, space, etc.) must be appended. If other resources will be required to mount this course, please explain.

COURSES WILL NOT BE APPROVED UNLESS IT IS CLEAR THAT ADEQUATE RESOURCES ARE AVAILABLE TO SUPPORT IT.

Space and equipment provided and maintained by Seneca College.

Course Rationale:
The following points should be addressed in the rationale:
How the course contributes to the learning objectives of the program / degree.
The relationship of the proposed course to other existing offerings, particularly in terms of overlap in objectives and/or content. If inter-Faculty overlap exists, some indication of consultation with the Faculty affected should be given.
The expected enrolment in the course.

This is one of a series of courses that Seneca College offers its Chemical Laboratory Technologist (Pharmaceutical) diploma students. It is therefore an existing course. It is a course that offers extensive relevant hands-on experience in the subject matter for its students. Through the Coregistration option, York students will be able to take this course as part of their York degree.
Faculty and Department Approval for Cross-listings:

If the course is to be cross-listed with another department, this section needs to be signed by all parties. In some cases there may be more than two signatures required (i.e. Mathematics, Women’s Studies). In the majority of the 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.

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With every new course proposal it is the Department's responsibility to ensure that new courses do not overlap with existing courses in other units. If similarities exist, consultation with the respective departments is necessary to determine degree credit exclusions and/or cross-listed courses.
Brief Course Description:

Maximum 2000 characters
(approximately 300 words including spaces and punctuation).

The course description should be carefully written to convey what the course is about. It should be followed by a statement of prerequisites and corequisites, if applicable. This description appears in the calendar.

For editorial consistency, and in consideration of the various uses of the Calendars, verbs should be in the present tense (i.e., "This course analyzes the nature and extent of...," rather than "This course will analyze...")

Generic Course Description:

This is the description of the "Parent / Generic course" for Special Topics courses under which variances of the "Generic" course can be offered in different years (Max. 40 words). Generic course descriptions are published in the calendar.

List all degree credit exclusions, prerequisites, integrated courses, and notes below the course description.

This is a one semester laboratory oriented subject intended to introduce students to aspects of pharmaceutical analytical methods validation. Students are introduced to regulatory requirements and guidelines for validation as well as validation protocol, validation SOPs and specifications for validation. Also discussed are critical analytical and processing parameters or quality attributes. The laboratory practical focusses on the following experiments: USP active pharmaceutical ingredient (API) impurities analysis using HPLC, USP uniformity of dosage unit by Weight Variation using HPLC, USP uniformity of dosage unit by Content Uniformity using HPLC and USP residual solvent impurities analysis of drug products by Headspace-GC. Not open to students having completed Seneca College course PHA533. Prerequisites: SC/CHEM 2080 4.0 and either SC/CHEM 3080 4.0 or SC/SENE 2081 (or Seneca courses PHA 333, TAC 333 and STA 453).
Learning Outcomes
Upon successful completion of this course, the student will be able to:

- calculate chromatographic attributes
- set-up and run HPLC and GC instruments to meet United States Pharmacopeia (USP) chromatographic system suitability requirements
- conduct GC analyses for residual solvent impurities to meet USP Chapter 467 requirements
- demonstrate knowledge of how the theory of Headspace GC is applied to enhance analyte detection and lower limits of quantitation
- conduct HPLC assay and analyze degradant impurities on drug substances and finished products (tablets, caplets)
- demonstrate familiarity with ICH validations requirements for analytical methods validation, including identification of critical validation parameters
- set validation specifications based on ICH, GMP guidelines
- write validation protocols/SOPs based on ICH, GMP guidelines
- derive pharmaceutical equations as well as calculate potency, % LC and % impurities
- operate the Chemstation software that controls the Agilent 1100 HPLC, 1200 HPLC, Agilent 6890 and 7890 Headspace GC for the purpose of method acquisition, data review, sequence reprocessing and data analysis
- write laboratory reports and draft responses to a laboratory deficiency

Essential Employability Skills
- Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfils the purpose and meets the needs of the audience.
- Respond to written, spoken, or visual messages in a manner that ensures effective communication.
- Execute mathematical operations accurately.
- Apply a systematic approach to solve problems.
- Use a variety of thinking skills to anticipate and solve problems.
- Locate, select, organize, and document information using appropriate technology and information systems.
- Analyze, evaluate, and apply relevant information from a variety of sources.
- Manage the use of time and other resources to complete projects.
- Take responsibility for one’s own actions, decisions, and consequences.
Course Design:

Indicate how the course design supports students in achieving the learning objectives. For example, in the absence of scheduled contact hours what role does student-to-student and/or student-to-instructor communication play, and how is it encouraged?

Detail any aspects of the content, delivery, or learning goals that involve “face-to-face” communication, non-campus attendance or experiential education components.

Alternatively, explain how the course design encourages student engagement and supports student learning in the absence of substantial on-campus attendance.

Instruction:

1. Planned frequency of offering and number of sections anticipated (every year, alternate years, etc.).

2. Number of department members currently competent to teach the course.

3. Instructor(s) likely to teach the course in the coming year.

4. An indication of the number of contact hours (defined in terms of hours, weeks, etc.) involved, in order to indicate whether an effective length of term is being maintained OR in the absence of scheduled contact hours a detailed breakdown of the estimated time students are likely to spend engaged in learning activities.

Offered as PHA533, administered and monitored by Seneca College. Made available to York students according to availability at Seneca College. Instructors provided by Seneca College.
Evaluation:

A detailed percentage breakdown of the basis of evaluation in the proposed course must be provided.

If the course is to be integrated, the additional requirements for graduate students are to be listed.

If the course is amenable to technologically mediated forms of delivery please identify how the integrity of learning evaluation will be maintained. (e.g. will "on-site" examinations be required, etc.)

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

30% Midterm
40% Final examination
30% Laboratory reports, assignments, oral quiz and presentations

Offered as PHA533, administered and monitored by Seneca College. Supported by the Seneca College library.

Texts and laboratory manuals made available by Seneca College.
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 INCLUDED.

Other Resources:
A statement regarding the adequacy of physical resources (equipment, space, etc.) must be appended. If other resources will be required to mount this course, please explain.

COURSES WILL NOT BE APPROVED UNLESS IT IS CLEAR THAT ADEQUATE RESOURCES ARE AVAILABLE TO SUPPORT IT.

Space and equipment provided and maintained by Seneca College.
**Course Rationale:**
The following points should be addressed in the rationale:

How the course contributes to the learning objectives of the program / degree.

The relationship of the proposed course to other existing offerings, particularly in terms of overlap in objectives and/or content. If inter-Faculty overlap exists, some indication of consultation with the Faculty affected should be given.

The expected enrolment in the course.

This is one of a series of courses that Seneca College offers its Chemical Laboratory Technologist (Pharmaceutical) diploma students. It is therefore an existing course.

It is a course that offers extensive relevant hands-on experience in the subject matter for its students.

Through the Coregistration option, York students will be able to take this course as part of their York degree and would be exempted from the Seneca PHA333 pre-requisite.

**Faculty and Department Approval for Cross-listings:**

If the course is to be cross-listed with another department, this section needs to be signed by all parties. In some cases there may be more than two signatures required (i.e. Mathematics, Women’s Studies). In the majority of the 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 cross-listing)</th>
<th>Department</th>
<th>Date</th>
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Changes to Existing Course

<table>
<thead>
<tr>
<th>Faculty: Science</th>
<th>Date of Submission: Oct. 20, 2015</th>
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</thead>
<tbody>
<tr>
<td>Department: Chemistry</td>
<td>Effective Session: F16</td>
</tr>
<tr>
<td>Course Number:</td>
<td>Course Title: Honours Major BSc in Chemistry</td>
</tr>
</tbody>
</table>

**Course Title:** Honours Major BSc in Chemistry

**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)
- [X] other (please specify): degree requirements

**Change From:** see next page  
**To:** see next page
Change From:
The program core is defined as (28 credits):
SC/CHEM 1000 3.00; SC/CHEM 1001 3.00;
SC/CHEM 2011 3.00; SC/CHEM 2020 3.00 and
SC/CHEM 2021 3.00; SC/CHEM 2030 3.00;
SC/CHEM 2080 4.00; SC/CHEM 3000 3.00;
SC/CHEM 3001 3.00.

Note: SC/BIOL 1500 3.00 and SC/BIOL 1000 3.00
and SC/BIOL 1001 3.00 are strongly recommended
for students lacking OAC or 12U biology.

In the applied chemistry area, the Department of
Chemistry offers a Specialized Honours program
stream in pharmaceutical and biological chemistry
(see below). In addition, students may develop a
concentration in analytical chemistry, or materials
chemistry, for which they should consult the
Department of Chemistry on course selection.

Honours Major Program

To:
The program core is defined as (28 credits):
SC/CHEM 1000 3.00; SC/CHEM 1001 3.00;
SC/CHEM 2011 3.00; SC/CHEM 2020 3.00 and
SC/CHEM 2021 3.00; SC/CHEM 2030 3.00;
SC/CHEM 2080 4.00; SC/CHEM 3000 3.00;
SC/CHEM 3001 3.00 (see Note 2).

Note 1: SC/BIOL 1500 3.00 and SC/BIOL 1000 3.00
and SC/BIOL 1001 3.00 are strongly recommended
for students lacking OAC or 12U biology.

Note 2: SC/CHEM 3001 3.00 is exempt for
students who complete at least 6 credits of
SC/SENE courses in the Honours Major Co-
registration option

In the applied chemistry area, the Department of
Chemistry offers a Specialized Honours program
stream in pharmaceutical and biological chemistry
(see below). In addition, students may develop a
concentration in analytical chemistry, or materials
chemistry, for which they should consult the
Department of Chemistry on course selection.

Honours Major Program

Co-registration option: Students may take up to
15 credits of SC/SENE courses to satisfy Honours
Major requirements while co-registered for one
term at Seneca@York, and in adherence to
Senate legislation and Seneca College standards,
deadlines and procedures. Students may choose
from the following SC/SENE courses in analytical
and instrumental technology, pharmaceutical
technology and material science: SC/SENE 2081
3.00, SC/SENE 2082 3.00, SC/SENE 2083 3.00,
SC/SENE 2084 3.00, SC/SENE 3072 3.00, SC/SENE
3073 3.00, SC/SENE 3074 3.00, SC/SENE 3083
3.00, SC/SENE 3084 3.00, SC/SENE 3091 3.00.
Students completing at least 6 credits of SC/SENE
courses are exempt from the core requirement
for SC/CHEM 3001 3.00. Once completed,
SC/SENE courses will appear on the York
transcript and the grades earned will count in the
York grade point average calculations.
### A. General education:
- non-science requirement: 12 credits;
- mathematics: **SC/MATH 1013 3.00**; **SC/MATH 1014 3.00**;
- computer science: one of **LE/EECS 1520 3.00**, **LE/EECS 1530 3.00**, **LE/EECS 1540 3.00** or **LE/EECS 1020 3.00**;
- foundational science: **SC/PHYS 1410 6.00** or **SC/PHYS 1420 6.00** or **SC/PHYS 1010 6.00** (not necessarily in year one).

### B. Major requirements:
- The program core as specified above (28 credits);
- **SC/CHEM 2050 4.00** (or **SC/BIOL 2070 3.00** and one of **SC/BCHM 2020 3.00** or **SC/BIOL 2020 3.00**, in which case **SC/BIO1000 3.00** and **SC/BIOL 1001 3.00** are pre-requisites);
- **SC/CHEM 3030 3.00** or **SC/CHEM 3050 3.00** or **SC/CHEM 3080 4.00** (**SC/CHEM 3080 4.00** is recommended to facilitate employment in industry);
- at least twelve credits in chemistry at the 4000 level, of which at least six must be in three-credit courses (being mindful of 3000-level prerequisites for 4000-level courses; some 4000-level courses can be taken in Year 3).

### C. Science breadth: at least 24 credits in science disciplines outside the major, of which three credits must be at the 2000 level or above. 15 of these 24 credits are satisfied by the general education requirement.

### D. Upper level requirement: a minimum of 42 credits at the 3000 level or above.

### E. Additional elective credits, as required, for an overall total of 120 credits.

### F. Standing requirements: to graduate in an Honours program requires successful completion of all Faculty requirements and departmental required courses and a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all courses completed.
Rationale: The proposed modification to the existing degree will allow qualified York students to get valuable hands-on experience in instrument-intensive lab work and Good Laboratory Practices within a select group of courses offered at Seneca College while coregistered there for one term under Senate’s 2013 regulation on Coregistration. Enrollment limits will apply in accordance with Seneca’s capacity. If student demand warrants it and Seneca College can accommodate the demand, this may lead to a later creation of a stream of the Honours Major degree. We anticipate that these measures will bolster incoming enrolments, student engagement, retention and satisfaction. We also anticipate that Seneca graduates will be more enticed to come to York afterward as they will be able to reduce their overall requirements to earn a BSc degree by earning credit for more of their courses.

In accord with the Senate guidelines, the coregistration option would be restricted to Honours students having completed at least 24 credits at York and maintained standing. Students would take up to 15 credits (5 courses) in one term while co-registered at Seneca College. We would have our students use the coregistration option in their third year to ensure that they have sufficient prerequisite background. Those students who lose Honours standing would be automatically transferred to the 3-year BSc program.

Seneca has indicated that they could best accommodate York students in Winter term. In the Fall term previous, interested and qualified students would, in consultation with the department, select and enroll in and pay fees for up to 5 SC/SENE courses for the Winter term from a broader list that will encompass analytical, pharmaceutical and materials areas. Each York SC/SENE course on the list will correspond to one existing Seneca course. Each will have been selected in consultation with Seneca for the amount and nature of the lab work. Each will bear a 2xxx or 3xxx course number, in accord with the level, as well as the Seneca course title. Each will have specified York and/or Seneca prerequisites (and/or corequisites), as well as course credit exclusions of York SC/CHEM and/or SC/SENE and/or other Seneca courses already excluded. The courses will be run and administered by Seneca College, in accord with their deadlines, grading schemes, policies and procedures for academic dishonesty, reappraisal, deferred standing and so forth. Enrollment limits in each such course may apply. York’s Registrar will receive the earned grades from Seneca as well as an invoice for their work. The SC/SENE courses and grades will appear on the York transcript, and the grades will count in the York grade point averages.

Students coming from Seneca College will, as part of their transfer credit assessments, be accorded equivalencies for SC/SENE courses if they have already taken the corresponding courses at Seneca and these will be useful for fulfilling a York degree.

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.
Proposal to create new degrees

Honours Major BSc in Biochemistry
Honours Major-Minor BSc with Major in Biochemistry
Honours Double Major BSc with Major in Biochemistry
as complements to the existing Specialized Honours BSc in Biochemistry

Background

In 2003, the Specialized Honours BSc degree in Biochemistry was launched. Enrollments in this program exceeded our targets and the number of students actively enrolled in this degree program is currently well over 100 across all years.

The current minimum SCgpa for continuation and graduation is 5.5, while the ogpa must be above 5.0. Those whose SCgpa or cgpa falls below the minima are forced to join another program in Chemistry or Biology. While those in year 2 may be able to recoup and re-enter the program after shadowing it for a time, those already well into year three may not be able to continue shadowing the program for lack of prerequisites or may not have qualified to re-enter Biochemistry, and then would face the need to complete unanticipated program-level requirements in order to graduate at all, or to settle for BSc in General Science, even though it is not the intent of the General Science degrees to serve as a exit options for such students.

Finally, not everyone interested in Biochemistry will wish to pursue graduate work: some will want to instead go into elementary and secondary teaching, others will want to enter the workforce directly and still others will be able to enter a professional program without needing specialization.

There are currently no combined degrees involving Biochemistry. Students who may wish to develop a major in Biochemistry but who do not wish the specialization of the existing degree, and those seeking a more liberal education have little option:

- to choose another major that allows a more liberal science diversity
- to be satisfied with the existing degree and its few elective credits available, or
- to undertake a combined degree involving Biology or Chemistry, whose requirements may not meet their needs, and which is hardly “liberal” in that the Double Major in Biology and Chemistry leaves little room for anything else.

Clearly, the existing degree is very restrictive, but there is no desire to amend the current degree because the level of preparation for graduate work in Biochemistry requires the specified specialization in the two subjects. In order to achieve the flexibility required to accommodate a minor in another subject or even a second major, the requirements for a combined degree need to be lighter, and this can be achieved by selecting out some of the prescribed courses from the existing degree while retaining a minimum level of depth and breadth that clearly produce a biochemist.

Summary of the Proposal

The Honours Major BSc degree proposed herein will enable students:
• to develop a major in Biochemistry and a minor in another subject (other than Biology or Chemistry); in principle, they could develop a second major subject (other than Biology or Chemistry) but some majors require more than the minimum 36 credits and the two majors may then necessitate more than the minimum 120 total credits;
• to develop a major in Biochemistry and explore one or a few other disciplines without needing to commit to the minimum 30 credits for a minor in another discipline;
• to obtain a degree in Biochemistry without training for graduate studies;
• to have an exit strategy when the SCgpa falls below 5.5.

The following Table outlines the requirements of the existing Specialized Honours and the proposed Honours Major degrees:

<table>
<thead>
<tr>
<th></th>
<th>Specialized Honours</th>
<th>Honours Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>total BCHM credits</td>
<td>37</td>
<td>18</td>
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<tr>
<td>total CHEM credits</td>
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<td>21</td>
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<tr>
<td>total BIOL credits</td>
<td>12</td>
<td>12</td>
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<tr>
<td>elective BCHM/BIOL/CHEM credits</td>
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<td>12</td>
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<tr>
<td>general science credits (MATH, PHYS, EECS)</td>
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<td>15</td>
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<tr>
<td>General Education</td>
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<td>12</td>
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<tr>
<td>free elective credits</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>(total specified upper-level credits)</td>
<td>(43)</td>
<td>(27)</td>
</tr>
<tr>
<td>(total specified 4000-level major credits)</td>
<td>(15)</td>
<td>(12)</td>
</tr>
<tr>
<td>total</td>
<td>120</td>
<td>120</td>
</tr>
</tbody>
</table>

Rationale for the Proposal

This proposal is two-fold in purpose:
(1) To provide a proper exit option for those unable to complete the Specialized Honours BSc degree, without facing the need to fulfill unanticipated requirements in another program.
(2) To provide flexibility to students wishing to develop a major in Biochemistry while retaining the opportunity to develop a second academic interest or to explore several other interests, with or without committing to a 30-credit minor, or to a major. The proposed degree may be useful for future teachers, for instance, who need sufficient depth in two or more areas but who do not wish a specialization or graduate study.

The General Education science and non-science requirements specified in the proposed degrees are the same as those of the existing degree but, along with the additional flexibility built into the upper year requirements of the proposed degrees, they may be used to satisfy part of the requirements of a second science major or minor, or those of a minor in a non-science subject.
Because Biochemistry is itself an interdisciplinary subject consisting largely of courses offered by the Departments of Biology and Chemistry, it will not be possible to combine a Major in Biochemistry with a Minor or second Major in either Biology or Chemistry, but any other science or non-science area would be acceptable for a minor, and a second major in another science would be acceptable. The conflicting General Education requirements for a non-science major make such problematic for combination with a science major.

Current Calendar Copy (2015-2016)

Faculty of Science (SC) – Biochemistry

The Department of Biology and the Department of Chemistry offer jointly a Specialized Honours program in Biochemistry.

Specialized Honours Program

A. General education:
   - non-science requirement: 12 credits;
   - mathematics: SC/MATH 1013 3.00 and SC/MATH 1014 3.00;
   - computer science: one of LE/EECS 1520 3.00 or LE/EECS 1530 3.00 or LE/EECS 1540 3.00;
   - foundational science: SC/PHYS 1410 6.00 or SC/PHYS 1420 6.00 or SC/PHYS 1010 6.00.

B. Major requirements:
   - SC/BCHM 2020 3.00; SC/BCHM 2021 3.00;
   - SC/BCHM 3010 3.00; SC/BCHM 3110 3.00; SC/BCHM 3130 3.00; SC/BCHM 3140 4.00;
   - SC/BCHM 3051 3.00;
   - SC/BCHM 4000 8.00; SC/BCHM 4050 3.00; SC/BCHM 4290 4.00;
   - SC/BIO 1000 3.00 and SC/BIO 1001 3.00 (or SC/BIO 1010 6.00);
   - SC/BIO 2040 3.00; SC/BIO 2070 3.00;
   - SC/CHEM 1000 3.00; SC/CHEM 1001 3.00;
   - SC/CHEM 2011 3.00; SC/CHEM 2020 3.00; SC/CHEM 2021 3.00; SC/CHEM 2030 3.00;
   - SC/CHEM 3020 3.00;
   - nine credits from any other 3000- or 4000-level biochemistry, biology or chemistry courses.

C. Science breadth: satisfied by above requirements.

D. Upper level requirement: satisfied by above requirements.

E. Additional elective credits, as required, for an overall total of at least 120 credits.

F. Standing requirements

To declare Honours requires successful completion of at least 24 credits, a minimum cumulative credit-weighted grade point average of 5.50 (B) over all science courses completed, and a minimum cumulative credit-weighted grade point average of 4.25 over all courses completed.

To proceed in each year of the Honours program requires a minimum cumulative credit-
weighted grade point average of 5.50 (B) over all science courses completed, and a minimum cumulative credit-weighted overall grade point average as specified in the Academic Standards section of the Faculty of Science Regulations Governing Undergraduate Degree Requirements section.

To graduate in Specialized Honours biochemistry requires successful completion of all Faculty requirements and all required program courses, a minimum cumulative credit-weighted grade point average of 5.50 (B) over all science (SC) courses completed, and a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all courses completed.

*Proposed Calendar Copy (2016-2017)*

**Faculty of Science (SC) – Biochemistry**

The Department of Biology and the Department of Chemistry offer jointly Specialized Honours and an Honours Major program in Biochemistry. The Honours Major program may be combined with a minor in another subject other than Biology or Chemistry.

The program core is defined as (51 credits): SC/CHEM 1000 3.00; SC/CHEM 1001 3.00; SC/Biol 1000 3.00; SC/CHEM 2011 3.00; SC/CHEM 2020 3.00; SC/CHEM 2021 3.00; SC/CHEM 2030 3.00; SC/BCHM 2020 3.00; SC/BCHM 2021 3.00; SC/Biol 2070 3.00; SC/BCHM 3010 3.00; SC/CHEM 3020 3.00; SC/BCHM 3051 3.00; SC/BCHM 3110 3.00; SC/BCHM 3130 3.00.

Note: SC/Biol 1500 3.00 is strongly recommended for students lacking OAC or 12U biology.

**Specialized Honours Program**

A. General education:

- non-science requirement: 12 credits;
- mathematics: SC/MATH 1013 3.00 and SC/MATH 1014 3.00;
- computer science: one of LE/EECS 1520 3.00 or LE/EECS 1530 3.00 or LE/EECS 1540 3.00;
- foundational science: SC/PHYS 1410 6.00 or SC/PHYS 1420 6.00 or SC/PHYS 1010 6.00.

B. Major requirements:

- the program core, as specified above (51 credits);
- SC/BCHM 3140 4.00; SC/BCHM 4000 8.00; SC/BCHM 4050 3.00; SC/BCHM 4290 4.00;
- nine credits from any other 3000- or 4000-level biochemistry, biology or chemistry courses.

C. Science breadth: satisfied by above requirements.

D. Upper level requirement: satisfied by above requirements.

E. Additional elective credits, as required, for an overall total of at least 120 credits.

F. Standing requirements

To declare Honours requires successful completion of at least 24 credits, a minimum cumulative credit-weighted grade point average of 5.50 (B) over all science courses completed, and a
minimum cumulative credit-weighted grade point average of 4.25 over all courses completed.

To proceed in each year of the Honours program requires a minimum cumulative credit-weighted grade point average of 5.50 (B) over all science courses completed, and a minimum cumulative credit-weighted overall grade point average as specified in the Academic Standards section of the Faculty of Science Regulations Governing Undergraduate Degree Requirements section.

To graduate in Specialized Honours biochemistry requires successful completion of all Faculty requirements and all required program courses, a minimum cumulative credit-weighted grade point average of 5.50 (B) over all science (SC) courses completed, and a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all courses completed.

**Honours Major Programs**

A. General education:
   - non-science requirement: 12 credits;
   - mathematics: SC/MATH 1013 3.00 and SC/MATH 1014 3.00;
   - computer science: one of LE/EECS 1520 3.00 or LE/EECS 1530 3.00 or LE/EECS 1540 3.00;
   - foundational science: SC/PHYS 1410 6.00 or SC/PHYS 1420 6.00 or SC/PHYS 1010 6.00.

B. Major requirements:
   - the program core, as specified above (51 credits);
   - twelve credits from 4000-level biochemistry, biology or chemistry courses.

C. Science breadth: satisfied by above requirements.

D. Upper level requirement: additional elective credits or credits satisfying a minor or second major at the 3000 or 4000 levels for a minimum 42 credits at the 3000 and 4000 levels

E. Additional elective credits or credits required by a minor or second major for an overall total of at least 120 credits.

F. Standing requirements

To declare Honours requires successful completion of at least 24 credits, a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all science courses completed, and a minimum cumulative credit-weighted grade point average of 4.25 over all courses completed.

To proceed in each year of the Honours program requires a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all science courses completed, and a minimum cumulative credit-weighted overall grade point average as specified in the Academic Standards section of the Faculty of Science Regulations Governing Undergraduate Degree Requirements section.

To graduate in Honours BSc in Biochemistry requires successful completion of all Faculty requirements and all required program courses, a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all science (SC) courses completed, and a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all courses completed.
Honours Double Major Program

The Honours Major in Biochemistry may be combined with a major in a second science, other than Biology or Chemistry, by fulfilling the following requirements:

- the requirements of the Honours Major in Biochemistry;
- the requirements for the second major, noting that some courses, in particular the General Education courses, specified for one Major will also satisfy some of the requirements of the second Major.

Some major subjects may specify more than the minimum 36 credits, such that the combined degree may require more than the minimum 120 credits required to graduate with an Honours degree.

Standing requirements:
To declare, proceed and graduate with an Honours Double Major BSc with a Major in Biochemistry, students must meet the standing requirements specified above for the Honours Major programs. The second major may have more stringent requirements.

Honours Major Minor Program

The Honours Major in Biochemistry may be combined with a minor in a second subject, other than Biology or Chemistry, by fulfilling the following requirements:

- the requirements of the Honours Major in Biochemistry;
- the requirements for the Minor, noting that some courses specified for one subject may also satisfy part of the requirements of the other subject.

Some minor subjects may specify more than the minimum 30 credits, such that the combined degree may require more than the minimum 120 credits required to graduate with an Honours degree.

Standing requirements:
To declare, proceed and graduate with an Honours Major Minor BSc with a Major in Biochemistry, students must meet the standing requirements specified above for the Honours Major programs.
RATIONALE FOR THE SC/SENE COURSE RUBRIC
in service of the proposed
York Chemistry-Seneca Co-registration initiative

Background:
The Chemistry Department is initiating a co-registration option under Senate legislation as official policy that will allow eligible York students to take eligible courses at Seneca that can serve to satisfy some York degree requirements. The required Calendar copy has been approved, though Senate ASCP has requested a revision for clarification.

Rationale:
The special rubric SC/SENE is needed for several reasons:
- The courses are to be York courses, approved by FSc Council as meeting our standards for university-level Science courses.
- The SENE rubric is needed to:
  - allow a listing of the eligible Seneca courses on York websites (notably the course enrolment and class list sites) for students to enroll, as enrolment is to be through York, then communicated to Seneca
  - allow course descriptions to include York pre-requisites and York course credit exclusions
  - allow York to charge tuition for those courses, with compensation to Seneca under a new MOU
  - allow York to list such courses taken on a York transcript
  - allow York to include the grades earned on such courses into the gpa calculations
  - obviate the need for Letters of Permission for each course taken
- As the Senate ASCP intends to make the SENE rubric available to other programs to use for similar arrangements with Seneca, the SC prefix is needed for courses created under FSc authority to identify those that the FSc will have approved and those for which the FSc is the responsible Faculty, and to ensure that the associated enrolments are attributed to the FSc. As well, the course numbering of SC/SENE-listed courses will specifically distinguish those that will be eligible for Chemistry majors from others that other FSc departments may wish to create in the future. The numbering of Chemistry-eligible courses with an SC prefix and the numbering of any other SC-created SENE courses with the SC prefix will not then need to avoid overlaps in the numbering used for SENE courses created by other Faculties.

The office of the Vice-Provost (Academic) has indicated that the SENE rubric is available.
The Senate of York University

Synopsis

The 623rd Meeting of Senate held on Thursday, February 25, 2016

University Academic Plan 2015-2020

Senate approved University Academic Plan 2015-2020 as recommended by the Academic Policy, Planning and Research Committee. The new UAP was developed by APPRC and its Technical Sub-Committee during an intensive community consultation process culminating in Senate's approval.

Remarks

The Chair of Senate, Professor George Comninel, invited Senators to attend a memorial following the meeting for Professor Ellen Meiksins Wood, a long-time member of the Political Science Department and Fellow of the Royal Society of Canada.

The President, Dr. Mamdouh Shoukri, reported on a successful trip to India as a delegate with Premier Wynne's recent trade mission. His itinerary included visits to Schulich's Hyderabad campus and other institutions with close ties to York. A decision on funding for the Markham Centre Campus is expected in the near future. Canadian universities remain optimistic that the federal government will enrich support for research and infrastructure. Seventeen York graduates serving as Members of Parliament (including Navdeep Bains, the Minister of Minister of Innovation, Science and Economic Development) attended a dinner hosted by the University in Ottawa.

The President's monthly “Kudos Report” can be accessed from the agenda package.

President's Research Awards for 2016

The Awards Committee profiled recipients of the 2016 President's Research Awards, Professor Bridget Stuchbury (Department of Biology, Faculty of Science) and Professor Rebecca Pillai-Riddell (Department of Psychology, Faculty of Health).

Reports

Under the auspices of the Academic Policy, Planning and Research Committee, Provost Rhonda Lenton and Vice-President Finance and Administration Gary Brewer provided an update on planning for the Markham Centre campus.

A presentation on planning for the Markham Centre campus can be accessed with other material posted on the Senate Website.

Approvals

Senate approved changes to its Rules and Procedures as recommended by the Executive Committee.
The Senate of York University

Synopsis

Senate approved recommendations made by the Academic Standards, Curriculum and Pedagogy Committee to

- establish a Policy and Guidelines on Withdrawn from Course Option and a Policy on Course Relief
- amend the Senate Policy on Repeating Passed or Failed Courses for Academic Credit
- establish new degree options for BA and BSc Programs in Global Health (Faculty of Health)
- close the BA Programs in Italian Culture (Department of Languages, Literatures & Linguistics, Faculty of Liberal Arts & Professional Studies)
- change requirements for the Specialized Honours BA and iBA Programs in Translation (School of Translation, Glendon)
- convert the admission pathway to the Specialized Honours BA and iBA programs in Translation (School of Translation, Glendon) from delayed- to direct-entry, revise admission requirements, and rename its Francophone and Anglophone Streams
- change program and admission requirements for the Certificate in Urban Ecologies, Faculty of Environmental Studies
- amend the Community Arts Practice Certificate, Faculty of Environmental Studies and School of the Arts, Music, Performance & Design by changing its name to Cultural and Artistic Practices (CAP) for Environmental and Social Justice; de-link the School of the Arts, Music, Performance & Design as a co-host; revise requirements; and increase the GPA necessary for conferral of the Certificate
- change requirements for the BFA Program in Dance (Department of Dance, School of the Arts, Music, Performance & Design)
- change requirements for the General Education Requirements for BA Programs in the Lassonde School of Engineering
- close the Athletic Therapy Certificate, Consecutive Option (School of Kinesiology & Health Science, Faculty of Health)

Notice of Statutory Motion

APPRC gave notice of its intention to recommend approval of a Department of Computational Arts in the School of the Arts, Media, Performance and Design.

Committee Information Reports

Senate Executive informed Senators that it had approved the addition of four individuals to the pool of prospective honorary degree candidates as recommended for approval by the Sub-Committee on Honorary Degrees and Ceremonial. The Acting Vice-Chair of Senate, Professor Ian Roberge, announced that the Executive would soon issue its annual call for expressions of interest in Senate committee membership and other positions in anticipation of spring elections.

The Awards Committee submitted a report on the disbursal of undergraduate awards.
The Senate of York University

Synopsis

The Appeals Committee filed its 2014-2015 annual report on Faculty and Senate petitions and appeals.

In addition to other matters described in this synopsis, APPRC advised Senate of the topic of discussion for its annual meetings with the Deans, Principal and University Librarian.

ASCP reported that it had approved minor modifications for the following:

**Arts, Media, Performance and Design**
- Specialized Honours BFA, Dance, Choreograph/Performance Stream Minor Degree Option
- Honours BFA Joint Diploma-Degree Program with Canada’s National Ballet School (Option A)
- Honours BFA Joint Diploma-Degree Program with Canada’s National Ballet School (Option B)

**Graduate Studies**
- Master of Design Program
- Graduate Diploma in Professional Accounting
- PhD program in Physics & Astronomy

**Glendon**
- Accelerated BA program in Translation

**Health**
- Specialized Honours BA and BSc programs in Global Health

**LA&PS**
- Classical Studies program (new rubric of CLST)

**Science**
- Specialized Honours BSc Program, Physics & Astronomy, Space Sciences Stream
- Specialized Honours BSc Program in Biophysics
- BSc Program in Environmental Biology

Please refer to the full Senate agenda posted online for details about these items.


Senate’s next meeting will be held at 3:00 p.m. on Thursday, March 24, 2016.