FACULTY OF SCIENCE

COUNCIL OF THE FACULTY OF SCIENCE

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

1. Call to Order and Approval of Agenda
2. Chair’s Remarks
3. Minutes of October 11, 2016 meeting
4. Business Arising
5. Inquiries and Communications
   ➢ Senate Synopsis: Meeting of October 27, 2016
6. Dean’s Report to Council
7. Associate Deans’ and Bethune Master’s Remarks
8. Reports from Science Representatives on Senate Committees
9. Reports from Standing Committees of Council
   9.1 Executive Committee: 2016-17 Vacancies Report on Senate and FSc Committees (item for action)
   9.2 Science Curriculum Committee (item for action & consent)
   9.3 Appeals Committee: Annual Report
   9.4 Committee on Examinations and Academic Standards: Annual Report
   9.5 Committee on Teaching and Learning: FSc Online Course Evaluations
10. Other Business

10.1 Presentation on the Mental Health Strategy for the University by Suzanne Killick and Lesley Beagrie, Mental Health Co-Chairs: http://mhw.info.yorku.ca/
Minutes

1. **Call to Order and Approval of Agenda**
   The Chair, N. Madras called the meeting to order and the Agenda was adopted as presented.

2. **Chair’s Remarks**
   N. Madras welcomed Council members to the meeting and reminded members to sign in.

3. **Minutes of May 10, 2016 meeting**
   A motion was moved, seconded and carried that Minutes of September 13, 2016 be approved with a deletion of the words ‘….. and adjust grades if required’ found on page 5 of the minutes.

4. **Business Arising**
   There was none.

5. **Inquiries and Communications**
   Council noted the Senate Synopsis of September 22, 2016.

   Dr. D. Wilson informed members that he is tasked with creating a core bioanalytical facility within FSc. To this end, he has extended his support to faculty members who are in the process of submitting an RTI application to obtain grants which are due shortly. He further informed members that applications are more likely to be successful if they specify that the equipment will be
housed in a managed facility that is accessible to members of the community beyond the host institution, where the facility is located. In conclusion, Dr. Wilson encouraged members to contact him for help in completing their RTI application.

6. **Dean’s Report to Council**

Dean Jayawardhana began his report by congratulating the following faculty members:
- Amro Zayed: Entomological Society of Canada’s C. Gordon Hewitt Award.
- Jorg Grigull & John McDeermott: Mitacs Accelerate grant
- Jean-Paul Paluzzi: 2016 Petro Canada Young Innovator Award

He highlighted the following faculty members who were featured in the media:
- Sapna Sharma: TVO The Agenda on effects of global warming on the Great Lakes
- Dasantila Golemi_Kotra: Global News & Toronto Sun on superbugs
- Wendy Taylor: Quirks & Quarks on news from CERN
- Paul Delaney: CTV News about Space X explosion, Philae lander and Elon Musk’s Mars plans

The Dean informed members of the following upcoming events:
- Oct 1 – Nov 7: Library talk series
- Oct 17: An evening with David Suzuki, Laurence Packer and Lorraine Johnson
- Oct 17 & 27: Ada Lovelace Day
- Oct 19: Convocation & Signature Speakers Series ‘A Mind For Numbers’ by Dr. Barbara Oakley
- Oct 24: Simons Announcement
- Nov 2: York Science Forum: Hacking the Genome with Feng Zhang

The Dean encouraged members to take the flyers that were made available in the room for posting in offices and departments.

On behalf of AD – S. Morin, Dean Jayawardhana provided an updated on the SIF Renovation Project – Farquharson:
- Project in general: Programming continues with several PIs keen to return to Farquharson post renovations.
- Decanting: several meetings have taken place with temporary space being identified. Some faculty members have offered space in their labs.

Committee on teaching lab schedules: Chaired by Lucy Bellissimo, Deputy Registrar, other members include FSc & Faculty of Health course directors who are tasked to provide options for relocating labs from Farquharson to other teachings labs on campus.

The Dean specially highlighted the efforts of Robert Tsushima for stepping up to deal with the issues of Vivarium due to the renovations.

In conclusion, the Dean informed member that the faculty would offer up to 10 DURAs next summer, an increase from the six DURAs awarded this past summer.

7. **Associate Deans’ Remarks**

AD – EJ Janse van Rensburg reminded members who were on sabbatical this past academic year to submit their sabbatical reports by November 1, 2016.

AD – A. Mills informed members that once again FSc in collaboration with the Toronto Public Library is presenting a series of talks titled ‘The Fascinating (and Sometimes Scary) World of Infectious Diseases’ and during the Winter, in collaboration with the Markham Library, FSc will run the Neuroscience Lecture Series.

AD – Mills announced that FSc is doing exceedingly well in experiential education compared to other faculties at the University with our students being directly involved in experiential
learning experience through lab, practicum, field courses, RAY positions, and summer NSERC and DURA opportunities.

8. Reports from Science Representatives on Senate Committees
   There were no reports.

8. Reports from Standing Committees of Council

9.1 Executive Committee
   Council moved, seconded and carried a motion to ratify additional nominations of 2016-17 Vacancies Report on Senate and FSc Committees as presented.

9.2 Science Curriculum
   Consent items were noted by Council.

9. Other Business

10.1 Proposed Faculty of Science Policy on Grades
   A motion was moved to approve the Faculty of Science Policy on Grades, which was carried with one abstention.

Council adjourned.

____________________________________
N. Madras, Chair of Council

____________________________________
J. Sequeira, Assistant Secretary of Council
The 629th Meeting of Senate held on Thursday, October 27, 2016

Remarks
The Chair of Senate, Professor George Comninel commented on the inspiring round of ceremonies held during Fall Convocation, and thanked Senators who attended to celebrate with graduates, their families and friends.

York’s President, Dr Mamdouh Shoukri, updated Senate on a number of public policy initiatives including the development of new Strategic Mandate Agreements, the finalization of a university tuition fee framework, and the culmination of an intensive review of funding formulae. In recent meetings with federal ministers, and conferences at home and abroad, President Shoukri has taken every opportunity to extol the job-ready, transferable and critical skills of York’s graduates, including those primarily educated in the Humanities and Social Sciences. The University must continue to broadly educate all of its students and help them prepare for careers that will undoubtedly evolve but invariably require the enduring attributes of university students.

It was noted that misinformation has been circulating in the community regarding a student day of action on November 2nd. It was clarified that classes are not cancelled on November 2 as the result of Senate’s approval in September of academic accommodations for students on that date.

Approvals
On a recommendation from the Executive Committee, Senate elected Franck van Breugel as the Vice-Chair-designate. Professor van Breugel begins his term on February 1, 2017. He is slated to become the first Chair of Senate from the Lassonde School of Engineering in 2018. Senate also extended the terms of the incumbent Chair and Vice-Chair of Senate by one month, and elected Professor Anoop Madhok of Schulich to the Tenure and Promotions of Committee.

Senate approved changes to the structure of the Master of Leadership and Community Engagement Program such that it will be pegged at five terms in length rather than four (effective September 2017).

Notice of Motion: Changes to the Senate Grading Scheme and Feedback Policy
Academic Standards, Curriculum and Pedagogy Committee gave notice of its intention to add the requirement that a basic course syllabus be available to students no later than two weeks prior to the commencement of classes in an academic term, to take effect in all undergraduate Faculties by 1 July 2018. Senators provided the Chair of ASCP, Professor Lisa Farley, with timely feedback and advice.

Institutional Integrated Resource Plan Reports and Recommendations
Following on two successful forums sponsored by the Academic Policy, Planning and Research Committee, Provost Lenton and Vice-President Finance and Administration Brewer engaged Senators in a discussion of IIRP working group reports and
recommendations. As they embark on further consultations focusing on Faculty
Councils, the Provost and Vice-President are especially hopeful of strong collegial
input into priorities, opportunities, timelines and processes.

Academic Colleague’s Report
The Academic Colleague to the Council of Ontario Universities, Professor David
Leyton-Brown, reported on recent meetings of COU, with special attention to
discussion of the “Report of the Premier’s Highly Skilled Workforce Expert Panel,
Building The Workforce Of Tomorrow” as well as the goals and nature of COU’s own
Conversation for a Better Future, a public consultation featuring an online survey open
to any citizen of the province. Senators were encouraged to participate in the survey.

Sessional Dates for Summer 2017 and Fall-Winter 2017-2018
ASCP advised that it had reviewed proposed sessional dates for Summer 2017 and
Fall-Winter 2017-2018 and confirmed that they were consistent with Senate policy.
The dates were posted online with the agenda.

Committee Information Reports
Senate Executive reported on

- its approval of members of Senate committees nominated by Faculty Councils
  and student Senators
- the membership and work plan of the Equity Sub-Committee
- Senate committee priorities for 2016-2017
- plans to spotlight one of the seven priority areas of the University Academic
  Plan at Senate meetings in 2016-2017

Academic Policy, Planning and Research shared the most recent written report on
planning for the Markham Centre campus along with a preliminary schedule for
highlighting UAP priority areas at meetings of Senate.

In its report ASCP confirmed approval of the following minor modifications:

- changes to requirements of the PhD program in Sociology
- changes to requirements of the PhD program in Science & Technology Studies
- changes to requirements of the PhD program in Psychology
- establishment of COMS as a rubric for the new BA program in
Communications, Glendon

Additional Information about this Meeting
Please refer to the full Senate agenda and supplementary material posted online with
the October 2016 meeting for details about these items.
http://secretariat.info.yorku.ca/senate/meeting-agendas-and-synopses/

Next Meeting of Senate
Senate’s next meeting will be held at 3:00 p.m. on Thursday, November 24, 2016.
2016-17 Vacancies Report on Senate and FSc Committees (item for action)

Vacancies
Committee on Teaching and Learning

Graduate Student Representatives (2)
York University

COUNCIL OF THE FACULTY OF SCIENCE

Report of the Science Curriculum Committee

October 2016

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 October 25, 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.

New Courses

1. SC/STS/NATS 1765 Science, experts and citizens

Course Changes

2.1 SC/CHEM 2050 Introductory Biochemistry; in pre-requisite(s)/co-requisite(s)

2.2 SC/CHEM 3000 Experimental Chemistry I; in Calendar description

2.3 SC/CHEM 3001 Experimental Chemistry II; in Calendar description

2.4 SC/CHEM 3010 Physical Chemistry; in pre-requisite(s)/co-requisite(s), in Calendar description

2.5 SC/CHEM 3030 Transition Metal Chemistry; in pre-requisite(s)/co-requisite(s)

2.6 SC/CHEM 4024 Structure Elucidation of Organic and Organometallic Compounds; in pre-requisite(s)/co-requisite(s), in Calendar description

2.7 SC/CHEM 4051 Biological Chemistry; in pre-requisite(s)/co-requisite(s)

2.8 AP/GEO 4200 Water Quality and Stream Ecosystems; in Calendar description (editorial), in course title (editorial)

2.9 SC/NATS 1830 Matter and Structure; in title, in calendar description

2.10 SC/STS 4501 Seminar in Science & Technology Science; other - as specified on the form
CURRICULUM COMMITTEE TEMPLATE

NEW COURSE PROPOSAL FORM

Faculty:
Indicate all relevant Faculty(ies) i.e. AS/AK/SC/MATH

Department:
Indicate department and course prefix (e.g. Languages, GER)

Course Number:
Special Topics courses Include variance (e.g. HUMA 3000C 6.0, Variance is “C”)

Course Title:
The official name of the course as it will appear in the Undergraduate Calendar and on the Repository

Short Title:
Appears on any documents where space is limited - e.g. transcripts and lecture schedules - maximum 40 characters

Academic Credit Weight:
Indicate both the fee, and MET weight if different from academic weight (e.g. AC=6, FEE=8, MET=6)

With every new course proposal it is the Departmental/Divisional responsibility to ensure that new courses do not overlap with existing courses in other units. If similarities exist, consultation with the respective departments/divisions is necessary to determine degree credit exclusions and/or cross-listed courses.
NATS 1765, "Science, experts and citizens," fulfills your general science (general education) credit. This course provides tools with which to better think about the relationship between science, scientific experts, citizens and what people think they know. We cover different cases in which claims about technical scientific facts interact, and often clash, with political and social arguments about those facts. Cases may include vaccination, anthropogenic climate change and what to do about it, and genetic engineering.

For each case we first cover a 'primer' on the technical issues - for instance learning how a gene codes for a protein - so that after this course when you come across such material you'll be better able to correctly grasp the relevant points. But we also study the enduring tension between expertise and democratic populism, the distinction between risk and uncertainty, and whether ignorance is a lack of knowledge...or the wrong knowledge confidently held. While no one can become an expert after taking a single course, NATS 1765 will help you better think about some of the most important issues of our time.

Prerequisites: none
Corequisites: none
Course credit exclusions: SC/NATS 1760 (Science, Technology and Society)
NATS 1765, "Science, experts and citizens," fulfills your general science (general education) credit. This course gives you some tools to think about the relationship between science, scientists and citizens, and knowledge and ignorance. No prior knowledge of physics, biology or medicine is required.

**LEARNING OUTCOMES:**

**a. Transferable skills obtained:**
By the end of the course, students will have sharpened their skill at dealing with 'information overload,' to quickly yet critically digest lots of material. They will have completed in-class assignments to a) better analyze and think critically about things they’ve heard or read; b) synthesize and distil that information; and c) communicate it to other people. The assignments are both responses to clicker questions (following a think/pair/share model) and increasingly demanding in-class summaries of passages from the readings.

**b. Technical topics learned:**
By the end of the course, students will be familiar with technical scientific topics such as:
- **Module 1, Vaccination:** immune responses; herd immunity; how randomized clinical testing works; autism; mercury poisoning; whooping cough
- **Module 2, Democracy and Expertise:** Type I and Type II errors
- **Module 3, Anthropogenic Climate Change I:** climate vs weather; adaptation/mitigation/amelioration; Malthusianism vs Cornucopianism; climate forcing; albedo; negative and positive feedback mechanisms; hydrocarbons; Keeling Curve; climate models; ocean circulation; WAIS and Greenland; ocean acidification; cap and trade vs carbon taxation; how peer review publications work; negative externalities
- **Module 4, Risk, Uncertainty and Ignorance:** basics of probabilistic risk analysis (event/fault trees); conditional probabilities versus natural frequencies; metacognition (aka “Dunning-Kruger effect”)
- **Module 5, Anthropogenic Climate Change II:** Socolow Wedges; carbon capture; solar radiation management
- **Module 6, Genetic Engineering:** eukaryotic and prokaryotic cells; mechanisms of protein synthesis; transcription and translation; codons, bases, sequences/sequencing; genomes/genomics; mutations (germ line vs somatic); various genetic engineering techniques; reporter genes; IP and genetic engineering; knockout (Jax) mice; Genentech, transgenic insulin and Wall Street; herbicide resistant crops; rBGH; Darwinian natural selection, 'genetic drift' and superweeds

**c. Social and conceptual topics learned:**
Students will also be able to relate the above technical topics and facts into a number of fruitful concepts and themes, thereby being able to ask better questions about science and society. Concepts include correlation versus causation; the naturalistic fallacy; ‘silent evidence’; the ‘periodic table of expertise.’ The course ‘narrative’, shown below, is gradually reveals these themes as the year proceeds.
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.

Please detail any aspects of the content, delivery, or learning goals that involve “face-to-face” communication or on-campus attendance.

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

It is important to note here that this proposal is for a course that is already being taught as NATS 1760A, "Science, Technology and Society;" there are already four sections (for more see below, 'rationale').

The course has emerged partly from explicit design and partly as a result of gradual refinement - I first began co-teaching it in 2012; I am currently teaching it for a seventh time.

The course design is 3 hours of class time a week, with 2 exams, 4 quizzes, a minimum of 12 in-class summarizing assignments, and clicker questions.

• Readings (and occasional simulations) are to be done each week; the summarizing assignments and clicker questions are designed to reward those who have actually done them.
• While accessible, readings become more technical over time.
• With one exception (to adhere with copyright), all readings and links to simulations are on Moodle to reduce student costs.
• Summarizing assignments are done once a class: a passage from the reading is given, and students are asked to put it in their own words in a structured way. The passage exemplifies an important concept. Exercises become more demanding: a summary is followed by a second shorter distillation; an example from the reading or the student’s life to show they can apply the concept; and finally relating it to other themes in the course.
• Think/pair/share (aka 'active learning') is also used with clickers. Clickers formalize the process, getting students to stay on task and not drift away to other conversational topics.

How assignments support learning outcomes: "By the end of the course, students will be familiar with technical scientific topics [listed above]...and be able to relate the above technical topics and facts into a number of fruitful concepts and themes, thereby being able to 'ask better questions about science and society.'

• The summarizing and think/pair/share-clicker assignments both help the student become familiar with these topics, concepts and themes.
• Exams, quizzes are multiple choice because of class size and TA time.
  • Multiple choice formats have a bad reputation because many such questions are written to reward only factual 'recall' on Bloom's taxonomy. This course’s multiple choice questions use formats to reward higher level thinking - deliberately using familiar keywords and buzzwords wrongly; using hypothetical questions, and so on.
  • Students drop lowest quiz score to allow improvement.
• Attendance scores reward those who simply show up for class, thereby ensuring enough students are present to participate in the in-class exercises.
Instruction:
1. Planned frequency of offering and number of sections anticipated (every year, alternate years, etc.).
2. Number of department/division 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.

1. One section can be offered once or twice a year. 250 or more students can take it.
   a. This course is 'scalable' so it can increase in size.
2. Hélène Mialet can also teach this course.
3. James Elwick
4. 72 hours of professor contact in classes, in addition to office hours (in person, 2 hours a week, plus extra scheduled office hours when necessary). If students spend 3 hours a week of doing the readings outside class, this is another 72 hours; at 4 hours it's 96 hours.

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.

• Exams (50%): Two, each worth 25%
• Quizzes (30%): Four, each worth 10%, worst score dropped, thus [(4-1) x 10%] = /30%.
• In-class Summarizing In-Class Assignments (15%):
• In-class activities (including, but not limited to, 'clicker' responses) (5%)

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

Because of the Supreme Court of Canada decision on fair dealing/use, to save students money all readings except one text are on Moodle; care has been taken to ensure that copyright has been respected.

Since students' reading the material is taken seriously, as much extraneous material as possible has been removed. In the case of highly difficult readings such as Beck's *Risk Society*, specific passages are flagged and outlined in PDF, and reviewed again in class.

Readings are constantly swapped in and out when more up-to-date or better sources are found: for instance the Kintisch reading will be substituted with excerpts from David Keith, *A case for climate engineering* (2014). Some YouTube or other videos are used.
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.

Class 2: The anti-vaccination movement and its causes
- Plotnick, "Paraphrase and Summary", [http://www.uc.utoronto.ca/paraphrase](http://www.uc.utoronto.ca/paraphrase), retrieved 1 Sept 2015

Class 3: 'Lisa, I want to buy your rock': correlation, storytelling and apparent causation
- Youtube, *The Simpsons*, "The Bear Patrol and Lisa's Tiger Repelling Rock" ([https://www.youtube.com/watch?v=fm2W0sg9ddU](https://www.youtube.com/watch?v=fm2W0sg9ddU))

Class 4: Non-experts can often contribute a lot to science....

Class 5: ...but let's not take this too far

Class 7: Don't talk about *scientists*, talk about scientific *experts*

Class 8: Expertise and trustworthiness
- Collins, *Are we all Scientific Experts Now?* pp. 103-132

Class 9: Anthropogenic climate change was discovered in 1938: the long history of climate science
- James Hansen, "Defusing the Global Warming Time Bomb," *Scientific American* 290 March 2004, pp. 70-77

Class 10: The Kyoto Protocol and the 2015 Paris Talks (COP21) as fetish objects

Class 11: Anthropogenic climate change as a 'wicked problem'

Class 13: 'Potemkin science' and the 'carbon combustion
complex'
- "A Representative Climate 'Debate',' "This Week Tonight with John Oliver" (https://www.youtube.com/watch?v=cjuGCJU3Gsg&app=desktop)
- "I'm not a scientist but I do play one occasionally...hell, more than occasionally": snippets from Merchants of Doubt (Sony Pictures Classics, 2015)

Class 14: A new ‘shadow kingdom’: Ulrich Beck and thinking about risk

Class 15: ‘Known knowns, known unknowns, and unknown unknowns’: what if experts aren’t always good at assessing risk?

Class 16: Thought communities and possible responses to climate change

Class 17: Geoengineering: nature as wild or as garden?
- Eli Kintisch, Hack the Planet: Science's Best Hope - or Worst Nightmare - for Averting Climate Catastrophe (Wiley, 2010), pp. 3-18, 231-241

Class 19: Basics of genetics/genomics and genetic engineering
- "Build a DNA Molecule", http://learn.genetics.utah.edu/content/molecules/builddna/
- "Transcribe and Translate a Gene," http://learn.genetics.utah.edu/content/molecules/transcribe/
- "The Inner Life of a Cell (Protein Packing)", https://www.youtube.com/watch?v=uHeTQLNFTpU
- G.J.V. Nossal and Ross L. Coppel, Reshaping Life: Key Issues in Genetic Engineering (Cambridge, 2002), pp. 7-23
**Class 20: Transgenic organisms (ie "gmos") and naturalistic fallacies**


**Class 21: Transgenic organisms, corporate agriculture, and monocultures**

- "Food Waste," *Last Week Tonight with John Oliver* [https://www.youtube.com/watch?v=i8xwlWb0LY](https://www.youtube.com/watch?v=i8xwlWb0LY)
- Daniel Kleinman, "Ceding Debate: Biotechnology and Agriculture," in *Science, Technology and Society* (Blackwell, 2007), Ch. 2 (pp. 15-33)

**Class 22: Transgenic organisms, the public, risk, and uncertainty**

- Avise, *The Hope, Hype & Reality of Genetic Engineering*, pp. 175-178

**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.*

**Course Rationale:**

The following points should be addressed in the rationale:

- How the course contributes to the educational objectives of the unit and of the Faculty.
- The relationship of the proposed course to other existing offerings.

The goal of this course is to promote not only awareness and a basic technical knowledge of three key scientific questions, as well as larger issues about the very relationship between science and society.

It is extremely important that NATS students not only have critical analytical skills but also have correct and adequate knowledge of the technical issues being discussed, so the class covers these topics in great detail. This is why the flash and java-based 'games' and animations are important, as an alternative way to visualize the issues.

NATS 1765 thus fulfils the mandate of NATS classes to both convey "something of the fundamental ideas which help us to understand how the physical world around us works" as well as "the manner in which science is (and has been) carried out, and the way in which scientists are currently trained to think and work."
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.

(http://natsci.info.yorku.ca/philosophy-of-the-natural-science-program/). By establishing the course as a way to ask questions - rather than receive pat answers - about science and society, it also tries to fulfil the general education mandate to foster critical analytical skills among its students, as well as new interdisciplinary ways of thinking.

Pragmatically, setting up this course as a new offering will actually remove overlap in NATS course offerings: it is currently being offered as NATS 1760, "Science, Technology and Society," but there are three other sections of this course, each taught in different ways and forms by three other instructors. This always leads to confused students. Creating a course with its own title distinguishes it from those courses and gives prospective students a better idea about the class topic when deciding which NATS course to take.

Faculty and Department/Division Approval for Cross-listings:

If the course is to be cross-listed with another department/division 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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CCAS 02/04/19
To: James Elwick, Assistant Professor, Department of Science and Technology Studies
From: Jacqueline Kreller-Vanderkooy, Science Librarian
Re: NATS 1765 - Science, Experts and Citizens
Date: September 26, 2016

I have reviewed the course proposal and bibliography for NATS 1765 – Science, Experts and Citizens and can state that the York University Libraries have the required resources to support this undergraduate level course.

Please be aware that the library offers the following services to help students with their research:
- A librarian can go to the classroom or tutorial and introduce students to the various resources available at the library including electronic journals, e-books, and databases.
- A librarian is also available for individual consultations with students to help them find the materials they need for their research.
- A librarian can be available as a user on the course Moodle page to answer student questions using the Forum discussion, provide links to resources in the course, and post handouts presented in face-to-face instruction.

The following book listed in the course bibliography is owned by the library:

If you would like a copy of this book placed on reserve at the library for students’ use, please place a reserve request by visiting reserves.library.yorku.ca. For more information about course reserves, please visit: http://www.library.yorku.ca/web/ask-services/facultyinstructor-support/places-items-on-reserve/.

The course bibliography lists additional readings, which are provided to students on Moodle. Assistance with copyright compliance may be requested through York University’s Copyright Support Office: http://copyright.info.yorku.ca.

The following electronic resources licensed by the library may be of help to the students in this course:
- **Web of Science** is a multidisciplinary citation database that indexes over 12,000 of the highest impact journals worldwide in the sciences, social sciences and humanities.
- **Scopus** is a multidisciplinary citation database that indexes over 21,500 peer-reviewed journals, 360 trade publications, and 113,000 books covering life, health, physical, and social sciences.

A more complete listing of resources is available at the following Research Guide:
- Natural Science: http://researchguides.library.yorku.ca/nats

Please note that the Steacie Library has extensive collections of books and reference materials that are relevant to this course.

In summary, I state that we are well positioned to support this course. If you have any questions, please do not hesitate to contact me.

Sincerely,
MEMORANDUM

Jacqueline Kreller-Vanderkooy, Science Librarian
Steacie Science & Engineering Library
416-736-2100 x40075
jkvan@yorku.ca
## Changes to Existing Course

**Faculty:** SC  
**Department:** CHEM  
**Date of Submission:** Oct 25, 2016  
**Course Number:** 2050  
**Effective Session:** F17  
**Course Title:** Introductory Biochemistry

### Type of Change:

- [x] 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 biochemistry for chemistry students. Course material includes cellular functions, biomolecules and metabolism. Three lecture hours and three laboratory hours per week. One term. Four credits. Prerequisite or corequisite: SC/CHEM 2020 6.00 or SC/CHEM 2021 3.0. Course credit exclusions: SC/BIOL 2020 3.00, SC/BCHM 2020 3.00, SC/BIOL 2020 4.00, SC/BCHM 2020 4.00.

**To:**

An introduction to biochemistry for chemistry students. Course material includes cellular functions, biomolecules and metabolism. Three lecture hours and three laboratory hours per week. One term. Four credits. Prerequisite or corequisite: SC/CHEM 2020 6.00 or SC/CHEM 2021 3.0. Course credit exclusions: SC/BIOL 2020 3.00, SC/BCHM 2020 3.00, SC/BIOL 2020 4.00, SC/BCHM 2020 4.00.

**Rationale:** This is an update that should have been made 3 years ago, when CHEM 2020 6.0 was split into CHEM 2020 3.0 and 2021 3.0.
# Changes to Existing Course

**Faculty:** SC  
**Department:** Chemistry  
**Date of Submission:** September 1, 2016  
**Course Number:** 3000 3.00  
**Effective Session:** F17  
**Course Title:** Experimental Chemistry I

### 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)  
- [x] 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:

A laboratory course in organic, inorganic and physical chemistry, including basic instruction in data handling, use of the literature and formal report writing. Six laboratory hours per week and one lecture hour per week. One term. Three credits. Not open to students entering Chemistry programs before Fall 2009. Prerequisites: SC/CHEM 2020 6.00 or SC/CHEM 2021 3.00, SC/CHEM 2030 3.00, SC/CHEM 2080 4.00. Prerequisite or corequisite: SC/CHEM 2011 3.00. Course credit exclusions: SC/CHEM 3011 4.00, SC/CHEM 3020 4.00, SC/CHEM 3030 4.0.

### To:

A laboratory course in organic, inorganic and physical chemistry, including basic instruction in data handling, use of the literature and formal report writing. Six laboratory hours per week and one lecture hour per week. One term. Three credits. Prerequisites: SC/CHEM 2020 6.00 or SC/CHEM 2021 3.00, SC/CHEM 2030 3.00, SC/CHEM 2080 4.00. Prerequisite or corequisite: SC/CHEM 2011 3.00. Course credit exclusions: SC/CHEM 3011 4.00, SC/CHEM 3020 4.00, SC/CHEM 3030 4.0.

### Rationale:

The added restriction is no longer required.

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

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

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

Faculty: SC
Department: Chemistry
Date of Submission: September 1, 2016
Course Number: 3001 3.00
Effective Session: F17
Course Title: Experimental Chemistry II

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)
- [x] 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:
A second, advanced laboratory course in organic, inorganic and physical chemistry, building on CHEM 3000 3.00. Six laboratory hours per week. One term. Three credits. Not open to students entering Chemistry programs before Fall 2009. Prerequisite: SC/CHEM 3000 3.00. Course credit exclusions: SC/CHEM 3010 4.00, SC/CHEM 3021 4.00, SC/CHEM 3031 4.00

To:
A second, advanced laboratory course in organic, inorganic and physical chemistry, building on CHEM 3000 3.00. Six laboratory hours per week. One term. Three credits. Prerequisite: SC/CHEM 3000 3.00. Course credit exclusions: SC/CHEM 3010 4.00, SC/CHEM 3021 4.00, SC/CHEM 3031 4.00

Rationale:
The added restriction is no longer required.

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

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

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

Faculty: SC  Department: Chemistry  Date of Submission: September 1, 2016
Course Number: 3010 3.00  Effective Session: F17
Course Title: Physical Chemistry

Type of Change:

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

Change From:
An introduction to spectroscopy and statistical thermodynamics for atoms and small molecules. Determination and applications of enthalpies of formation, reaction and solution for different systems. Three lecture hours per week. First term. Three credits. Prerequisites: SC/CHEM 2010 3.00; SC/CHEM 2011 3.00. Course credit exclusions: SC/CHEM 3010 4.00.

To:
An introduction to quantum mechanics, spectroscopy and statistical thermodynamics with applications to atoms and small molecules. Electronic structure and chemical bonds. Three lecture hours per week. First term. Three credits. Prerequisites: SC/CHEM 2011 3.00, SC/CHEM 2030 3.00. Course credit exclusions: SC/CHEM 3010 4.00.

Rationale:
CHEM 2010 no longer exists and the basic material that prepares for CHEM 3010 was transferred to CHEM 2030. As well, the focus of CHEM 3010 has changed in response to accommodate that shift as well as a change in personnel, and the proposed description is a more accurate reflection of current course material.

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

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

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

Faculty: SC
Department: Chemistry
Course Number: 3030 3.0
Effective Session: F17
Course Title: Transition Metal Chemistry

Date of Submission: September 1, 2016

Type of Change:
- [x] 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:
The chemistry of the transition metals is discussed from an historical perspective and within the context of modern theories of bonding, structure and spectroscopy. Topics include classical coordination compounds, organometallics, metallocenes, metal carbonyls and bioinorganic chemistry. Three lecture hours and two tutorial hours per week. One term. Three credits. Prerequisites: SC/CHEM 2010 3.00; ^SC/CHEM 2020 6.00; SC/CHEM 2030 4.00 or SC/CHEM 2030 3.00. Course credit exclusion: SC/CHEM 3030 4.00.

To:
The chemistry of the transition metals is discussed from an historical perspective and within the context of modern theories of bonding, structure and spectroscopy. Topics include classical coordination compounds, organometallics, metallocenes, metal carbonyls and bioinorganic chemistry. Three lecture hours and two tutorial hours per week. One term. Three credits. Prerequisites: CHEM 2021 3.00 or SC/CHEM 2020 6.00; SC/CHEM 2030 3.00. Course credit exclusion: SC/CHEM 3030 4.00.

Rationale:
CHEM 2010 is no longer offered and its relevant material was transferred to CHEM 2030. The 4-credit version of CHEM 2030 has not been offered in 10 years. CHEM 2020 6.0 was split in F13.

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

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

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

**Faculty:** SC  
**Department:** Chemistry  
**Date of Submission:** September 1, 2016  
**Course Number:** 4024 3.0  
**Effective Session:** F17  
**Course Title:** Structure Elucidation of Organic and Organometallic Compounds  
**Type of Change:**
- X in pre-requisite(s)/co-requisite(s)
- in cross-listing
- in course number/level
- in degree credit exclusion(s)
- in credit value
- in course format/mode of delivery *
- regularize course (from Special Topics)
- in title (max. 40 characters for short title)
- retire/expire course
- other (please specify):

## Change From:

Spectroscopic methods for the identification of organic reaction products and other organic and organometallic unknowns, primarily for chemistry students. The main focus is on solving molecular structure using\* NMR techniques. Three lecture hours per week. One term. Three credits. Prerequisite: SC/CHEM 3020 3.00 or SC/CHEM 3020 4.00.

## To:

This course explores, in detail, the application of Nuclear Magnetic Resonance (NMR) spectroscopy for the identification of organic reaction products and other organic and organometallic unknowns. It is intended primarily for students with a basic knowledge of NMR spectroscopy. The main focus is to establish molecular structure using modern NMR techniques. Three lecture hours per week. One term. Three credits. Prerequisite: SC/CHEM 3020 3.00 or SC/CHEM 3000 3.00.

## Rationale:

This is a rewording of the course description to be more accurately reflective of current material, and an update of the prerequisites to reflect the experience now built into the new prerequisite SC/CHEM 3000.

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*Note: For course proposals involving cross-listings, integrations and degree credit exclusions, approval from all of the relevant Faculties/department is required.  
Note: Since one change (such as a change in year level or credit value) may result in several other changes (e.g., to the course description, evaluation, instruction, bibliography, etc.), please submit as many details as possible. If there are several changes, please feel free to use a New Course Proposal Form in order to ensure that all the required information is included.  
\* Note: If there is a technology component to the course, a statement is required from ATS indicating whether resources are adequate to support the course. Courses converted from face-to-face to an online delivery mode should follow the instructions provided on page 4 of the New Course Proposal Form to provide revised ‘Course Design’ and ‘Method of Instruction’ information.*
Changes to Existing Course

Faculty: SC
Department: CHEM
Date of Submission: Oct 2016
Course Number: 4051 3.0
Effective Session: Y17
Course Title: Biological Chemistry

Type of Change:

- [x] 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:
Bio-organic and bio-inorganic topics: active sites in enzymes and metalloproteins, coenzymes; abiotic models; aromatic natural products, terpenoids and some alkaloid classes. Three lecture hours. One term. Three credits. Prerequisites: SC/CHEM 2020 6.00 or SC/CHEM 2021 3.00 and either SC/BCHM 2020 3.00 or SC/BIOL 2020 3.00 or SC/CHEM 2050 4.00 or SC/BCHM 2020 4.00 or SC/BIOL 2020 4.00; SC/CHEM 2030 4.00 or SC/CHEM 2030 3.00 is strongly recommended.

To:
Bio-organic and bio-inorganic topics: active sites in enzymes and metalloproteins, coenzymes; abiotic models; aromatic natural products, terpenoids and some alkaloid classes. Three lecture hours. One term. Three credits. Prerequisites: SC/CHEM 2020 6.00 or SC/CHEM 2021 3.00 and either SC/BCHM 2020 3.00 or SC/BIOL 2020 3.00 or SC/CHEM 2050 4.00 or SC/BCHM 2020 4.00 or SC/BIOL 2020 4.00; SC/CHEM 2030 3.00 is strongly recommended.

Rationale:
The 4-credit version of SC/CHEM 2030 has been replaced by the 3-credit version about 10 years ago and this mention is no longer needed.

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.
CHANGE TO/EXPIRE EXISTING COURSE

Department/School: GEOGRAPHY
Proponent Name: TARMO REMMEL
Proponent Email: geoupd@yorku.ca

Current Course Information (Originator):
Faculty: AP Rubric: Course #: 4200 Weight: 3.00
Current Long Course Title: Water Quality and Stream Ecosystems
Effective Session for Change: Term: (e.g., Fall; Winter; Summer) Fall Year: 2017

Is this course currently cross-listed? yes

If yes, cross-listed to:
Faculty: SC Rubric: GEOG Course #: 4200 Weight: 3.00

Type of Change (check all that apply):
☐ in course number / year-level ☒ in calendar description (editorial) ☐ in course credit exclusion(s) †
☐ in credit value ☐ in pre-requisite(s)/co-requisite(s) ☐ in course format/delivery mode ‡
☒ in course title (editorial) ☐ in cross-listing * ☐ retire/expire course
☐ other (please specify):

* Cross-listed courses are offered jointly by two or more teaching units (such as departments or divisions), or teaching units in two or more different Faculties. Regardless of the offering Faculty or discipline identified by the course prefix of a cross-listed course, every offered section of a cross-listed course is substantially the same as every other and all are therefore recognized as instances of the “same” course.
† “Course Exclusion” is a formal status accorded to pairs of courses that are recognized as having sufficient overlap in content to warrant specifically excluding students from obtaining credit for both. Course exclusion status requires the same curricular approval process required for establishing cross-listings. Course exclusions will be recognized by all Faculties and programs.
‡ 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.
Academic Rationale for Change:
Note: If this is a change in course number/year-level or in credit value please provide a detailed rationale below.

GEOG4200 is intended to teach students about human impacts on water quality, but the current focus on stream biogeochemistry is very narrow, and enrolment in recent years has been low. In addition, there is currently no general course on aquatic ecosystems in Geography, which is an important gap that needs to be addressed given global concerns over pollution and water security. Our update to the course title and description will address both of these issues. The major themes and topics of the course will remain the same (human impacts, pollutants, biogeochemical cycling), but streams will be discussed as part of a connected landscape of inland aquatic ecosystems that also includes lakes, estuaries, reservoirs, and wetlands. This will not only facilitate a greater understanding of the unique aspects of stream ecosystems, but will also fill our curriculum gap on other types of inland aquatic ecosystems. Student learning on these topics will be enriched by a greater emphasis on how they relate to critical watershed management issues across the globe, which is reflected in the updated course description.

Please denote additions in bold, blue, underlining, and strikethrough for deletions.
If change is in Title, add both the Long version and Short version of title

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<th>Proposed Calendar Copy (Change To):</th>
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<tr>
<td><strong>Title:</strong> Water Quality and Stream Ecosystems</td>
<td><strong>Title:</strong> Inland Aquatic Ecosystems</td>
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<td><strong>Course Description:</strong> The course focuses on selected aspects of river water quality, including hillslope hydrology and the transport of pollutants, the impacts of human activities on water chemistry, nutrient transformations within stream ecosystems, and the effects of water quality on stream biological communities.</td>
<td><strong>Course Description:</strong> In this course, students will learn about the structure and function of inland aquatic ecosystems, including both natural (e.g. rivers, lakes, wetlands) and artificial (e.g. reservoirs, irrigation canals) waterbodies worldwide. We will discuss the physical, chemical, and biological properties of these systems, with a strong emphasis on how this knowledge can be integrated into ecosystem management strategies. This course also explores differences in the spatial distribution of inland aquatic ecosystems across the globe, and their predominant environmental stressors.</td>
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</table>

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

Confirmation of Consultation/Approval

The Committee on Curriculum, Curricular Policy and Standards will not consider new course proposals that have not been approved by the Department/School responsible for offering the course.

It is the Department/School’s responsibility to ensure that proposed changes (e.g. title change, etc.) will not result in overlap with existing courses in other units. The Committee on Curriculum, Curricular Policy and Standards asks that proponents proactively consult with other units where overlap could possibly occur. Evidence of any consultations that have taken place must be submitted along with this proposal form (including consultations that simply confirm that no overlap exists).

Curriculum Toolkit: Consultation Form
Faculty-level Curriculum Committee Submission Deadlines & Details

Fall Winter 2017/18, Summer 2018 Academic Sessions:

 completa proposal package deadline: June 1, 2016.

Proposals submitted after this date, and/or incomplete proposals, may not be processed for the academic sessions noted above. Early submissions are welcome and appreciated.

Complete proposal packages including all relevant documentation (i.e. evidence of consultation and library statements) should be submitted via email (apccps@yorku.ca) for faculty-level consideration.
Changes to Existing Course

Faculty:

Department: Natural Science (STS)  Date of Submission: Sept. 20 2016

Course Number: NATS 1830  Effective Session: 2017/2018

Course Title: Matter and Structure

Type of Change:

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

Change From:

Current Course Name: "Matter and Structure"

Current Calendar Description
From atomic structure comes molecular structure, and, in turn, come the physical properties of matter composed of atoms and molecules. The relationship between physical properties and usefulness of materials is developed. The role of science in developing new materials is discussed.

To:

NEW COURSE NAME
"Mysteries of Everyday Materials"

NEW Calendar Description
Why does rice soften upon boiling? Why does gasoline burn but water does not? These questions and more will be examined through an exploration of matter at the molecular level. The relationship between physical properties and the usefulness of everyday materials will also be discussed.
Rationale: In an effort to improve enrolment, and retain the course, we would like to change the course name and university calendar copy description so that both are more representative of the course.

We have only a few Natural Science chemistry course offerings and it is essential that we retain those we have to maintain a course breadth that encompasses as many aspects of science as possible.

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

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

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

**Department:** Science & Technology Studies  
**Course Number:** STS 4501 6.00  
**Course Title:** Seminar in Science & Technology Studies

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**Change From:**  
**Originating Unit:** AP HUMA 4501 6.0  
**X list:** AP SOSC 4501 6.0 & SC STS 4501 6.0

**To:**  
**Originating Unit:** SC STS 4501 6.0  
**X list:** AP SOSC 4501 6.0 & AP HUMA 4501 6.0

**Rationale:**  
This course has been mounted, scheduled and taught by the STS department for many years. The link to HUMA as the originating unit is historical. Leaving HUMA as the originating unit creates difficulties in how the course is assigned in Moodle, what resource librarian is assigned, exam scheduling and how the bookstore shelves textbooks for this course. We would like to retire the original course and set it up with STS as the originating unit.

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*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.*
### Appeals Committee

**2015/16 - September 1, 2015 - August 31, 2016**

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NOTE: Details are filed with J. Pearson, Secretary of the Committee on Examinations and Academic Standards, 349 Lumbers. Information regarding previous years is for information only.


Alternate members: N. Bartel, J. Grigull, K. Hudak, J. Lazenby, J. Rudolph,

Number of Meetings held: 19

Academic Dishonesty Cases:

FW15: 14 hearings, 68 ratifications
FW14: 16 hearings, 45 ratifications
FW13: 22 hearings, 66 ratifications
FW12: 13 hearings, 83 ratifications
FW11: 21 hearings, 105 ratifications

Graduation Awards:

FW15: 36 First Class, 49 First Class with Distinction
FW14: 36 First Class, 39 First Class with Distinction
FW13: 30 First Class, 48 First Class with Distinction
FW12: 33 First Class, 47 First Class with Distinction
FW11: 37 First Class, 40 First Class with Distinction

Fall 2016: 0 Gold Medals, 0 Silver Medals
Spring 2016: 1 Gold Medal, 1 Silver Medal
Fall 2015: 0 Gold Medals, 0 Silver Medals
Spring 2015: 1 Gold Medal, 1 Silver Medal
Fall 2014: 1 Gold Medal, 0 Silver Medals
Spring 2014: 1 Gold Medal, 1 Silver Medal
Fall 2013: 0 Gold Medals, 0 Silver Medals
Spring 2013: 1 Gold Medal, 0 Silver Medals
Fall 2012: 1 Gold Medal, 1 Silver Medal
Spring 2012: 1 Gold Medal, 2 Silver Medals
Debarments

FW 15: 29  FW14: 7  FW13: 5  FW12: 7  FW11: 10

Failed to Gain Standing


*Note: This decision designation is no longer used. 2012-13 was the last year of use.

Required to Withdraw


*Note: Prior to FW13 this decision designation only applied to BA students.

Grades Approval

Final Grades reviewed with anomalies:

SU16: 2 (>30% A+/A), 0 (>30% E/F)
FW15: 40 (>30% A+/A), 8 (>30% E/F)
SU15: 1 (>30% A+/A), 1 (>30% E/F)
FW14: 17 (>30% A+/A), 2 (>30% E/F)
SU14: 6 (>30% A+/A), 0 (>30% E/F)
FW13: 24 (>30% A+/A), 6 (>30% E/F)
SU13: 4 (>30% A+/A), 1 (>30% E/F)
FW12: 23 (>30% A+/A), 3 (>30% E/F)
SU12: 6 (>30% A+/A), 3 (>30% E/F)
FW11: 29 (>30% A+/A), 3 (>30% E/F)

Chair: G. Audette
Secretary: J. Pearson
Date: October 25, 2016
To:        N. Madras, Chair Faculty of Science Council  
Cc:        S. Siyakatshana, Council Secretary  
From:   W. A. van Wijngaarden, Chair of Committee on Teaching & Learning (COTL)  
Re:      Item for Nov. 8 Faculty Council – Online Course Evaluations  
Date:   Oct. 21, 2016

The Committee on Teaching & Learning would like to request time at the Nov. 8 Faculty Council meeting to discuss how to increase the response rate to online course evaluations. The transition from written to online evaluations has been occurring for some time. Indeed, several departments in our Faculty no longer have any written course evaluations. Unfortunately the response rate to online evaluations is only about 20%, far lower than the ~80% response rate for the traditional evaluations in written form. This raises the question about representative sample size of the online evaluations, severely limiting their usefulness.

Given that this issue affects all departments, COTL felt a standardized Faculty approach to this issue may be desirable. A discussion at Faculty Council would facilitate invaluable feedback and gauge the support for a possible future proposal(s) regarding this issue.

A number of suggestions listed below have been made to increase the course evaluation response rate. COTL does not express any view on any of these suggestions but raises them for discussion purposes and welcomes other ideas. Thank you for your consideration.

1. **Advertising:** Posters as well as individualized emails highlight the issue to students. It is important that such advertising be neutral. A poster urging students who want change to complete evaluations may not generate a response from a representative class sample.

2. **Instructor Explanation:** It is useful for instructors to state they value evaluations. Giving examples of changes made in response to past evaluations shows student views are valued.

3. **Time in Class:** Setting aside 10 to 15 minutes of class time for students to complete evaluations is helpful if done at the start of class. If time is given at the end of a lecture, too many students simply leave without doing the evaluation.

4. **Delay Release of Grades:** Some universities have taken the step to not release a course grade until the course evaluation is completed.

5. **Incentive:** Some instructors report dramatic increases if a nominal bonus mark (<1%) is given to all students in a class if the response rate exceeds a certain level such as 80%. Food incentives also appear to work such as free pizza, caviar etc.
Salary, Benefit and Attendance Information about Post-Doctoral Visitors at York

Quick Facts: Expenses for Researchers Hiring a PDV *

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salary</strong></td>
<td>$31,500 minimum salary (no max) + 10% statutory employer contributions + $1,200 healthcare spending account benefits. (Supervisors should budget a minimum of $35,850.)</td>
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<tr>
<td><strong>Statutory Employer Contributions (CPP, EI, etc.)</strong></td>
<td>10%</td>
</tr>
<tr>
<td><strong>Extended Health Benefits</strong></td>
<td>$1,200 available in a spending account for eligible expenses</td>
</tr>
<tr>
<td><strong>Vacation Pay</strong></td>
<td>Included in salary</td>
</tr>
<tr>
<td><strong>Pregnancy Leave/Primary Caregiver Leave</strong></td>
<td>95% of salary for 2 weeks before EI begins; difference between 95% of salary and EI for 15 weeks after EI starts (total of 17 weeks)</td>
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<td><strong>Parental Leave</strong></td>
<td>Unpaid</td>
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<tr>
<td><strong>Bereavement Leave</strong></td>
<td>Included in salary</td>
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<tr>
<td><strong>Medical Leave</strong></td>
<td>Included in salary</td>
</tr>
<tr>
<td><strong>Family Medical Leave</strong></td>
<td>Included in salary</td>
</tr>
</tbody>
</table>

*Detailed information on all categories can be found below.

**General**

- Post-Doctoral Visitors are included in the York University Faculty Association (YUFA). All information included in this guide can be found in the YUFA collective agreement.
- The YUFA collective agreement is accessible through the following website: [http://www.yufa.ca/wp-content/uploads/2015/05/Tentative-Agreement-Feb-9-2016.pdf](http://www.yufa.ca/wp-content/uploads/2015/05/Tentative-Agreement-Feb-9-2016.pdf)
- Postdoctoral salaries, statutory employer contributions, and extended healthcare benefits are eligible expenses on most research grants, including Tri-council grants.
- It is expected that all benefits costs will be covered by the same source from which the salary is drawn. For example, a researcher who hires a postdoc whose salary is paid for through an NSERC Grant will normally pay the benefits with funds from that same grant.
- All Post-Doctoral Visitors (PDVs) at York will receive a minimum salary of $31,500 per annum, pro-rated for the period of the fellowship if applicable.

**Benefits**

- All PDVs at York will be provided with extended health care benefits.
- This will be provided in the form of a Health Care Spending Account containing $1,200 from which the PDV will be reimbursed for expenditures on health, dental, vision and other medical expenses that qualify for the medical expense tax credit as defined by the *Income Tax Act* (Canada) and its Regulations.
- The annual spending limit under the Health Care Spending Account is $1,200.
- Supervisors will be charged a flat $1,200 annually, in addition to the PDV’s base salary and statutory employer contributions, to fund the Health Care Spending Account.
Vacation & Leaves

- **Vacation** - PDVs at York are entitled to fifteen (15) business days of paid vacation per annum.
  - Payment for these vacation days is included in the PDV’s regular monthly salary.
  - This amount is prorated for the period of the fellowship.
  - Supervisors are expected to keep track of vacation used and owing.
  - Unused vacation and medical leave credits may not be carried forward from one contract year into a subsequent one.

- **Pregnancy/Primary Caregiver Leave** - PDVs at York are entitled to seventeen (17) weeks of Pregnancy/Primary Caregiver Leave.
  - Expenses for Pregnancy/Primary Caregiver Leave are expected to be covered by the supervisor’s cost centre.
  - For PDVs going on Pregnancy/Primary Caregiver Leave and who apply for and receive EI benefits, the difference between the EI amount and 95% of the regular salary will be paid to the PDV for fifteen (15) weeks of leave, following the two week waiting period for EI.
  - For the two-week waiting period for EI, 95% of the regular salary will be paid to the PDV.
  - PDVs on Pregnancy/Primary Caregiver Leave will remain enrolled in the York Post-Doctoral Extended Healthcare Plan during the seventeen (17) weeks of leave.

- **Parental Leave** - PDVs at York are entitled to up to 35 weeks of unpaid Parental Leave following the birth of the child or the coming of the child into the person’s care, control and custody for the first time.

- **Bereavement Leave** - PDVs at York are entitled to up to five (5) days of Bereavement Leave without loss of pay in the event of the death of an immediate family member.

- **Medical Leave** - PDVs at York are entitled to up to ten (10) days of Medical Leave without loss of pay if the PDV is unable to attend work due to injury or illness.

- **Family Medical Leave** - PDVs at York are entitled to up to one (1) week of Family Medical Leave without loss of pay to attend to an ill family member upon request, once per calendar year.
<table>
<thead>
<tr>
<th>Leave Type</th>
<th>Amount/Duration</th>
<th>Payment Details &amp; Requirements</th>
</tr>
</thead>
</table>
| Vacation              | 15 business days| • PDV is entitled to vacation with pay for 15 business days per year  
• Unused vacation credits will not be carried forward from one contract year to a subsequent year  
• If a Holiday under falls during the PDV’s vacation, they will not be required to use a vacation credit for that Holiday |
| Pregnancy Leave       | 17 weeks        | • Leave to be taken immediately preceding and/or following the birth of a child  
• 95% of salary paid during two week waiting period for EI  
• Difference between 95% of salary and EI benefit paid during fifteen weeks after EI starts  
• 2 week wait time for EI + 15 weeks = total of 17 paid weeks of leave  
• The employee will remain enrolled in the University’s Post-Doctoral Visitor Extended Healthcare Plan during the 17 weeks |
| Primary Caregiver Leave| 17 weeks       | • Parent of a child who has principal responsibility for the child’s care is entitled  
• Leave to be taken immediately following the coming of a child of less than 12 years into the caregiver’s custody, care or control for the first time  
• 95% of salary paid during two week waiting period for EI  
• Difference between 95% of salary and EI benefit paid during fifteen weeks after EI starts  
• 2 week wait time for EI + 15 weeks = total of 17 paid weeks of leave  
• The employee will remain enrolled in the University’s Post-Doctoral Visitor Extended Healthcare Plan during the 17 weeks |
| Parental Leave        | 35 weeks        | • A PDV who is a parent is entitled to up to 35 weeks of unpaid Parental Leave following the birth of the child or the coming of the child into the person’s care, control and custody for the first time  
• If a Pregnancy or Primary Caregiver leave is also taken, Parental Leave is to be begin immediately upon the conclusion of the Pregnancy or Primary Caregiver Leave  
• If a Pregnancy or Primary Caregiver Leave is not taken, Parental Leave may begin no more than thirty five (35) weeks after the day the child is born or comes into the care, custody and control of the employee for the first time |
| Bereavement Leave     | 5 days of leave/contract year | • In the event of the death of an immediate family member, the employee may take up to 5 days’ leave without loss of pay |
| Medical Leave         | 10 days/contract year | • If unable to attend work as a result of illness or injury the PDV will be provided up to 10 days of medical leave without loss of pay per contract year  
• Medical leave days may not be carried forward if unused during a contract year |
| Family Medical Leave  | Up to 1 week/contract year | • PDV is to be granted leave of up to one (1) week without loss of pay to attend to an ill family member once per contract year upon request  
• Additional medical leave without pay may be granted in the same contract year |
next year. The JCOAA subcommittee on Benefits will meet within 60 days of the ratification of the Agreement to discuss the administration of the fund.

16. Article 27. Rights and Privileges of the Association

Article 27.04(b)

• Revise the existing second paragraph to read as follows:

The Association shall inform the Employer as to its wishes in respect of this Article by 1 July 2012-2015 for the contract year 2012-2013 2015-2016 and 1 July 2013-2016 for the contract year 2013-2014 2016-2017 and 1 July 2014-2017 for the contract year 2014-2015 2017-2018 in order for its entitlement to be valid. Course-load reduction entitlement not used may be carried forward for use the following year.

17. Post-Doctoral Visitors

(a) Revise Article 12.28.2 (Letters of Appointment) as follows:

12.28.2 The letter of offer of appointment for Post-Doctoral Visitors (PDVs) from the Dean/Principal or designate to the prospective appointee shall set out the nature of the position being offered and expectations of the position. The letter of offer shall refer to this Collective Agreement and provide a link to an electronic version of same. Letters of appointment from the Dean/Principal shall specify the duration, salary, and applicable benefits of the appointment. The letter of appointment shall also include or be accompanied by an Intellectual Property Agreement and a provision for confirmation that the PDV has had the opportunity to seek advice on intellectual property rights prior to signing the Intellectual Property Agreement. For further information, see Appendix A, Section F.

(b) Revise Appendix A.F. as follows:

F. Post-Doctoral Visitors are a subset of Post-Doctoral Fellows who must have a completed PhD and whose sole source of funding is from York University. For clarity, Post-Doctoral Visitors do not include individuals who receive any funding directly from an external agency or organization including, without limiting the generality of the foregoing, NSERC, SSHRC, CIHR or foundations such as the Mellon Foundation. Post-Doctoral Visitors shall have an appointment at York University which does not exceed four (4) years in total. Further, Post-Doctoral Visitors who are assigned teaching responsibilities may be assigned no more than one (1) full-course equivalent (FCE) in any academic year.
The employment of Post-Doctoral Visitors as employees in the YUFA bargaining unit is not subject to any of the provisions of the YUFA Collective Agreement other than the following Articles: 1-7, 91-9, 11.03-11.08, 12.20, 12.28.2, 16, 18.02, and 18.40-18.43. In the context of a proceeding pursuant to Article 11.06 (a), the provisions of Articles 15.05 and 15.06 shall apply. Compensation and Leaves for Post-Doctoral Visitors are set out in Schedule A below for new Post-Doctoral Visitor contracts starting on or after July 1, 2016. Supervisors will be provided with a schedule annually and on request setting out the costs of the compensation elements described in Schedule A that will be applied to the Supervisor’s funding sources supporting the Post-Doctoral Visitor’s salary and compensation.

Schedule A – Post-Doctoral Visitor Compensation

1. Income

Annualized income from all sources (save and except income from any teaching assignments) will be no less than $31,500. For clarity, this minimum does not preclude individual supervisors from providing a higher annualized income if their sources of funding that support the annualized income permit.

2. Benefits

Employees will be provided with a Health Care Spending Account for reimbursement of expenditures on health, dental, vision and other medical expenses that qualify for the medical expense tax credit as defined by the Income Tax Act (Canada) and its Regulations. Expenses that qualify for reimbursement also include premiums to eligible extended health care insurance plans.

The annual spending limit under the Health Care Spending Account is $1,200.

3. Leaves

(a) Pregnancy and Primary Caregiver Leave
   (i) An employee is entitled to up to 17 weeks of Pregnancy Leave to be taken immediately preceding and/or following the birth of the child.
   (ii) An employee who is a parent of the child and has principal responsibility for the child’s care is entitled to up to 17 weeks of Primary Caregiver Leave to be taken immediately preceding and/or following the coming of the child of less than twelve (12) years into the custody, care and control of
the employee for the first time.

(iii) Employees on Pregnancy or Primary Caregiver Leave who apply for and receive Employment Insurance (EI) will receive salary support at a rate of 95% of their regular salary during the two week waiting period for EI and will receive the difference between the EI benefit and 95% of their salary during the next 15 weeks for a total of 17 weeks of salary support. Employees will also remain enrolled in the University's Post-Doctoral Visitor Extended Healthcare Plan during the 17 weeks.

Application for Pregnancy or Primary Caregiver leave shall be made to the supervisor as early as possible.

(b) Parental Leave
An employee who is a parent is entitled to up to 35 weeks of unpaid Parental Leave following the birth of the child or the coming of the child into the care, control and custody of the employee for the first time. If the employee takes a Pregnancy or Primary Caregiver Leave, Parental Leave will begin immediately upon the conclusion of the Pregnancy or Primary Caregiver Leave. Otherwise, the Parental Leave may begin no more than thirty five (35) weeks after the day the child is born or comes into the care, custody and control of the employee for the first time.

Application for Parental Leave shall be made to the supervisor as early as possible.

(c) Bereavement Leave
In the event of the death of an immediate family member, an employee may take up to 5 days' leave without loss of pay. The employee will notify the supervisor and advise of the expected duration of the leave as soon as possible.

(d) Medical Leave
Employees who are unable to attend work as a result of illness or injury will be provided up to 10 days of medical leave without loss of pay per contract year. If advance notice is not possible, the employee shall inform the supervisor of the nature and expected duration of the absence from duties as soon as possible.

Unused medical leave may not be carried forward into the next contract year.
In granting medical leave of longer than 5 working days, the Employer may require the employee to provide a medical verification of the nature and expected duration of the illness. In exceptional cases, the Employer may require a second opinion from a mutually acceptable practitioner at its expense.

(e) Family Medical Leave

Upon request, an employee will be granted leave of up to one (1) week without loss of pay to attend to an ill family member once per contract year. Additional Family Medical Leave without pay may be provided in the same contract year.

4. Vacation

Employees shall be granted vacation with pay of 15 business days per year. Vacation credits are intended to be used in the contract year granted and unused vacation credits will not be carried forward from one contract year to the next. If a Holiday under Article 18.02 falls during an employee’s vacation, the employee will not be required to use a vacation credit for that Holiday.

Vacation requests shall be made to the supervisor with as much advance notice as possible to allow for effective planning of work activities.

18. Appendix A Bargaining Unit Inclusions/Exclusions

(b) Revise A. (11) to include three (3) professional librarians as follows:

(11) Two (2) Three (3) professional librarians to be designated by York University,
Paid Maternity and Parental Leave for Students and Postdoctoral Fellows

NSERC and CIHR only

The Agencies will provide parental leave supplements paid out of grants within six months following the child's birth or adoption to eligible students and postdoctoral fellows who are paid out of agency grants and who are primary caregivers for a child.

The supplement will be paid to students and fellows as per their current salary/stipend for up to six months. If both parents are supported by grant funds, each parent may take a portion of the leave for a combined maximum of six months. The supplement will be pro-rated if the student or postdoctoral fellow is being trained in research on a part-time basis. Students or fellows who are eligible for employment insurance or other parental leave supplements from other sources do not qualify for parental leave supplements.

Information pertaining to the documents to be submitted can be found on the Checklist for Maternity and/or Parental Leave Paid from Grants to Students and Postdoctoral Fellows.

CIHR only

Requests for funds are subject to the availability of CIHR and partner funds, if applicable, and CIHR approval.

SSHRC only

Parental leave supplements are not an eligible budget item for SSHRC grants.