



FACULTY OF SCIENCE

COUNCIL OF THE FACULTY OF SCIENCE

Agenda

**Tuesday, March 14, 2017
at 3:00pm – 4:30pm, in 306 Lumbers**

1. Call to Order and Approval of Agenda
2. Chair's Remarks
3. Minutes of February 14, 2017 meeting
4. Business Arising
5. Inquiries and Communications
 - Launch of Richard Jarrell's book, *Educating the Neglected Majority*
 - Senate Synopsis: Meeting of February 16, 2017
6. Dean's Remarks
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*
 - Vacancies: 2017-18 Vacancies Report on Senate and FSc Committees (item for action)
 - 9.2 Science Curriculum Committee (consent items)
10. Other Business
 - Presentation by Kathleen Winningham, Director, YU Experience Hub, on York Internship Programs and York Science Co-op Promotion Initiatives



FACULTY OF SCIENCE

COUNCIL OF THE FACULTY OF SCIENCE

Minutes

**Tuesday, February 14, 2017
at 3:00pm – 4:30pm, in 306 Lumbers**

Attendance: D. Golemi-Kotra, A. Mills, R. Jayawardhana, M. Xu, M. Caplan, R. Nariani, S. Morin, E. Hamm, J. Elwick, P. Potvin, G. Lavoie, N. Madras (Chair), M. McCall, G. R. Zoidl, R. Tsushima, E.J Janse van Rensburg, J. Grigull, K. R. Maltman, T. S. Salisbury, D. Wilson, H. N. Howard, C. Bergevin, W. P. Tholen, P. Lakin-Thomas, S. Siyakatshana (Assistant Secretary of Council)

Guests: Brad Sheeller & Margaret Hough

1. Call to Order and Approval of Agenda

The Chair of Council, Dr. N. Madras called the meeting to order and the Agenda was adopted with a correction to the agenda, addition of the “Dean’s Remarks”.

2. Chair’s Remarks

There were no Chair’s remarks.

3. Minutes of January 10, 2017 meeting

The Minutes were approved.

4. Business Arising

Dr. Madras noted that the names of three people willing to represent Science on the Human Participation Review Committee have been forwarded to the committee.

With respect to the Metrics for research and other indicators, Council noted that S. Morin and L. Donaldson had worked on and completed the response and submitted it to Senate.

5. Inquiries and Communications

Council noted the Senate Synopsis of January 26, 2017.

6. Dean's Remarks

Dean R. Jayawardhana reported to Council that Dr. Allan Carswell, a pioneer in developing lidar technologies at York was featured in the IEEE Spectrum February Issue. He added that Dr. Carswell's lidar systems helped map the waters of the Arctic and the atmosphere of Mars.

The Dean informed the meeting that Science was undertaking an initiative to enhance professional development opportunities for graduate students. Recently, Science hosted the first Science & Business Workshop of 2017, with about ninety graduate students in attendance. The event featured a keynote address by Dr. Truong Ta, senior director of Immunization Policy at Sanofi Pasteur. He stated that this pilot project was supported through donor funds.

He also reported on the Markham Public Library Series which was planned to increase Science visibility in the Markham area. The first series lead by D. Wilson was sold out. He announced the upcoming Markham Public Library Series.

In the media,

He reported that Dr. Muhammad Yousaf & team were featured in a variety of media outlets for his research on Scaffold Free Bio-orthogonal Assembly of 3-Dimensional Cardiac Tissue via Cell Surface Engineering; Nature Scientific Reports (2016).

Dr. Thilo Womelsdorf – won the E.W.R. Steacie Memorial Fellowship.

With regard to the 2016-17 FFTE Undergraduate Enrolments as at February 8, 2017, the Dean noted that we had a very strong winter cycle, including an increase in international students.

The Dean updated Council that the long awaited Strategic Initiative Fund announcement was now scheduled for Friday, February 17, 2017, in the LSB lobby.

Upcoming events,

The Honours & Awards ceremony will be held on March 8, 2017. The key note speaker is Ian Harnarine, an award winning filmmaker and York University physics and astronomy alumnus.

The Dean concluded his report by stating that the Southern Ontario Undergraduate Student Chemistry Conference will be held at York on March 18, 2017.

7. Associate Deans' and Bethune Master's Remarks

Associate Dean Morin reported that the deadline for receiving the NSERC, USRA and DURAs applications was Friday, February 17, 2017. She reminded faculty members and their students to submit these on time. She added that her office had now received nominations for the teaching, research and mentorship awards. These awards will be adjudicated soon and will be announced at the Honours and Awards evening on March 8th.

Associate Dean Janse vanRensburg reminded faculty that the nominations for honorary professorships due in March.

Associate Dean Mills updated Council on the Markham Campus progress with respect to the relevant programs and courses. He stated that the campus will embrace the principles of Gen Ed as well. In addition, the question was, how are the courses going to be delivered at Markham campus given the small nature of the campus? A current issue is whether or not to have a common first year for the whole campus. Deliberations are ongoing on this and a decision is yet to be made. Lastly, he stated that internal and external consultations regarding the Markham Campus are ongoing. A brief discussion ensued. A. Mills took a few questions from Council.

8. Reports from Science Representatives on Senate Committees

Dr. M. McCall updated Council on the process of reallocation of Senate seats. He noted that the rebalancing process will not result in a significant change in the number of Senate seats for our Faculty.

9. Reports from Standing Committees of Council

Science Curriculum Committee (consent items)

Council approved the Curriculum Committee items.

10. Other Business

9.1 Professor Derek Wilson to speak about YBioCore, one of FSc's strategic initiatives

Professor Derek Wilson provided some background information on the YBioCore including articulation of the proposal. He stated that the aim was to combine the Mass Spectrometry. into a trial core facility which will have high end mostly needed equipment that will be accessible to faculty. Council had wide ranging deliberations on the pros and cons of this proposed facility with respect to its scope, viability, including the budget. D. Wilson answered some questions from Council. The Dean added that a concerted effort will be made to source some funding from donors where possible.

In conclusion, D. Wilson was encouraged to have departmental consultations by attending departmental meetings. In addition, consultation with Council should be ongoing.

9.2 Professor Martin Bunch, Chair of the President's Sustainability Council to discuss the development of the York University Sustainability Strategy

Professor M. Bunch made a presentation to Council on the development of the York University Sustainability Strategy. The presentation may be reviewed by clicking here, <http://science.yorku.ca/files/2017/03/SustPlanInfo-13Feb17.pptx>

Council had a brief discussion on the presentation. Additional feedback maybe forwarded to M. Bunch.

Meeting adjourned.

N. Madras, Chair of Council

S. Siyakatshana, Assistant Secretary of Council

**The 632nd Meeting of Senate
held on Thursday, February 16, 2017**

Remarks

On the occasion of her first meeting as the Chair of Senate, Professor Lesley Beagrie of the Faculty of Health lauded her predecessor, Professor George Comninel, for his mentorship and friendship. She also expressed appreciation to Senators, University Secretary Maureen Armstrong and her University Secretariat colleagues, and the new Vice-Chair, Professor Franck van Breugel of the Lassonde School of Engineering, for their support. The Chair spoke of her commitment to collegiality, and extolled an approach to governance that is inclusive, respectful and positive. The Chair expressed condolences on the passing of a former Dean of the Faculty of Fine Arts, Joseph Greene.

The Chair advised Senators that the Executive Committee of Senate is aware that a strike by members of Unite-Here local 75 began on February 16, 2017. The strike has not resulted in a disruption of academic activities as defined by Senate policy such that they have been substantially interrupted or impeded. Certain provisions of the *Senate Policy on Academic Implications of Disruptions or Cessations of University Business Due to Labour Disputes or Other Causes* do apply in the event of a strike on campus. As was confirmed in response to a question, these are limited to the rights of students who elect not participate in activities while a strike is on. Members of the community may access the Policy on the Senate Website for more information at:

<http://secretariat-policies.info.yorku.ca/policies/academic-implications-of-disruptions-or-cessations-of-university-business-due-to-labour-disputes-or-other-causes-senate-policy-on-the/>

York's President, Dr Mamdouh Shoukri, joined in welcoming the new Chair and Vice-Chair. Dr Shoukri also commented on the following:

- the confusing and contested travel ban ordered in the United States, the response developed by Universities Canada and the University's offer to provide a home for displaced academics and students
- a visit to the Keele campus by Lieutenant Governor Elizabeth Dowdeswell, and her delight at visiting with students and touring facilities
- the status of Strategic Mandate Agreement negotiations, which included a helpful conversation with the government's lead hand, Bonnie Patterson, and the importance of collegial input through Senate and in other settings
- the striking of a planning board to further study the possibility of a French-language university in southwestern Ontario and York's commitment to seeing that Glendon's distinctive bilingual mission is protected and prospers
- the second employee engagement survey and the value of participation

In response to questions about metrics, the President said he shared concerns about the array of indicators most commonly used, their limitations and biases. The University is pressing the government (which appears receptive) to building a narrative about research into the SMAs. He and the Vice-President Research and Innovation welcome collegial perspectives on how to expand -- and make more inclusive -- a range of indicators in order to better capture the sophistication and impact of York research.

Reports

In a presentation on the University's mental health strategy, the Chair of Senate spoke on the important topic of "Advancing a Mentally Healthy Campus." She cited the University Academic Plan's objectives in this domain and emphasized the need for Senate and its committees to address relevant matters. Deep engagement throughout the community is also essential. Her presentation was posted with other documents following the meeting. The Mental Health and Wellness Website can be accessed from this link:

<http://mhw.info.yorku.ca/>

Facilitated Discussion

In the second of a series of "spotlight" discussions of priority areas in the University Academic Plan sponsored by the Academic Policy, Planning and Research Committee (APPRC), Associate Vice-President Teaching and Learning Will Gage presented on the structures, processes and key initiatives that support the constituent goals of priority area 3: *Enhanced Quality in Teaching and Student Learning*.

Curriculum Approvals

On recommendations made by the Academic Standards, Curriculum and Pedagogy Committee (ASCP), Senate approved

- the establishment of the Cross-Disciplinary Bergeron Entrepreneurs in Science and Technology (BEST) Certificate in Technology Entrepreneurship, Lassonde School of Engineering
- the establishment of a 90-credit Degree Option in and changes to degree requirements for the BA programs in Educational Studies, Faculty of Education
- changes to admission requirements for Masters Programs, Schulich School of Business / Faculty of Graduate Studies
- changes to the General Education requirements for BA Programs in the Faculty of Science
- changes to degree requirements for the MFA Program in Dance, School of the Arts, Media, Performance and Design / Faculty of Graduate Studies
- changes to the degree requirements for the iBA Degree Type, Faculty of Liberal Arts & Professional Studies

- changes to the degree requirements for the BA Programs in Anthropology Department of Anthropology, Faculty of Liberal Arts & Professional Studies
- changes to the degree requirements for the BA Programs in Professional Writing and English & Professional Writing, Writing Department, Faculty of Liberal Arts & Professional Studies
- changes to the degree requirements for the PhD Program in Economics, Faculty of Liberal Arts & Professional Studies / Faculty of Graduate Studies
- changes to the requirements for the Diploma in Health Psychology, Faculty of Health / Faculty of Graduate Studies
- changes to the degree requirements for the PhD Program in Social Work, Faculty of Liberal Arts & Professional Studies / Faculty of Graduate Studies

Committee Information Items

Senate Executive reported on the following items:

- approval of the Osgoode Hall Faculty Council nominee for membership on the Sub-Committee on Honorary Degrees and Ceremonials
- remaining vacancies (on the Tenure and Promotions Committee) for 2017 – 2020 terms
- projected timelines for the consideration of recommendations arising from the Committee's bi-annual review of Senate membership
- its concurrence with recommendations from the Sub-Committee on Honorary Degrees and Ceremonials and subsequent addition of six individuals to the pool of prospective honorary degree recipients; the Sub-Committee and Senate Executive reiterated the hope that more nominations will be forthcoming while stressing that the process is not onerous
- changes to the Faculty of Education's convocation ceremonies
- as recommended by the University Secretary, approval of all eleven Faculty Council membership lists for 2016-2017

APPRC reported that its Sub-Committee on Organized Research Units had concurred with a proposal of the Vice-President Research and Innovation to suspend the York Institute for Health Research as options are explored.

ASCP reported that it had approved revised *Senate Guidelines and Procedures Governing Course Cross-Listings, Exclusions and Substitutions* along with the following minor changes to curriculum and degree requirements:

Arts, Media, Performance and Design

- minor changes to the degree requirements for the BA Honours Minor program in Theatre (Production)
- minor changes to the degree requirements for the Honours BFA and Honours BA programs in Theatre

- minor changes to the degree requirements for the BA Honours Minor in Computational Arts and Technology program

Education

- clarification of admission and degree requirements for the BEd (Technological Education) program

Glendon

- minor changes to the Bilingual requirement for all undergraduate programs at Glendon

Lassonde School of Engineering

- minor changes to the degree requirements for the Specialized Honours BEng program in Civil Engineering

Awards

The Awards Committee filed its annual report on Faculty and Senate adjudications. Its Chair, Professor Robert Kenedy, highlighted data showing increases in funds disbursed and the number of students benefitting from support.

Additional Information about this Meeting

Please refer to the full Senate agenda and supplementary material posted online with the February 26, 2017 meeting for details about these items.

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

February Meeting of Senate

Senate's next meeting will be held at 3:00 p.m. on **Thursday, March 23, 2017**.

Senators and members of the community are asked to take special note of the date, which comes one week prior to normal to avoid a conflict with Reading Week.

2017 – 18 REPORT OF VACANCIES ON SENATE AND FSC COMMITTEES

Ratification of nominations

Chair of Council

D. Golemi-Kotra

Committee on Teaching and Learning

A. Chow: Department of Mathematics & Statistics

Research and Awards Committee

R. Kwong: Department of Biology

2017-2018 Report of Vacancies on Senate and FSc Committees

Outstanding vacancies are highlighted in red				
Faculty on Sabbaticals are also highlighted in red				
Committee	Rules of Faculty Council - membership	Meeting time / Membership	Term	
			From	To
Senate	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.	As per Senate website		
	Designated	R. Jayawardhana - Dean	designated	
	Member at large	EJ Janse van Rensburg - AD (Faculty)	2015	2018
	Member at large	V. Saridakis, Biology	2016	2019
	Member at large	G. Audette, Chemistry	2016	2019
	Member at large	T. Salisbury, Math & Statistics	2015	2018
	Member at large	J. Lazenby, STS	2016	2019
	Department Chair	D. Hastie (Chemistry)	2015	2018
	Department Chair	P. Szeptycki (Math & Statistics)	2016	2019
	Department Chair	M. McCall (Physics & Astronomy)	2015	2018
	Undergraduate Student (Biomedical Science)	Vacant	2017	2018
	Undergraduate Student (Biomedical Science)	Vacant	2017	2018
	Director of NATS	J. Clark	designated	
FSc Reps on Senate Committees				
Senate Executive	1 member from FSc	M. McCall, Chair, Phys & Astronomy	2016	2019
Academic Policy, Planning and Research Committee (APPRC)	1 member from FSc	Vacant	2017	2020
Sub-Committee on Honorary Degrees & Ceremonials	1 member from FSc	Vacant	2017	2020
Executive Committee	The <u>Executive Committee</u> 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 & Statistics, Physics & Astronomy, and Science and Technology Studies/Natural Science, the Dean of the Faculty of Science (<i>ex officio</i>), one student member of Council, and one of the staff members elected to Council.	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		
	Chair	D. Golemi-Kotra	2017	2018
	Vice-Chair	Vacant (becomes chair in 2018)	2017	2018
	Dean	R. Jayawardhana		
	Asst. Dean - SEM & SEP	A. Mun-Shimoda		
	Staff Representative	Vacant	2017	2018
	Undergraduate Student Representative	Vacant	2017	2018
	Biology	V. Saridakis	2015	2018
	Chemistry	Vacant	2017	2020
P. Gibson is on sabbatical from Jul 1-17-Jun 30-18	Math & Stats	Vacant	2017	2018
W. Taylor on Sabbatical from Jul 1-17-Jun 30-18	Physics & Astronomy	Vacant	2017	2018
	STS	E. Hamm	2016	2019

APPC	The <u>Academic Policy and Planning Committee</u> shall include the Dean or designate (<i>ex officio</i>), the Master of Norman Bethune College and one member elected from each of Biology, Chemistry, Mathematics & Statistics, Physics & Astronomy, and Science and Technology Studies/Natural Science, one student member of Council, and one of the staff members elected to Council.	APPC will normally meet the last Thursday of each month (September to April) from 9:00 am - 10:30 am			
	Associate Dean, Faculty	E. J. vanRensburg			
	Master of Bethune College	J. Amanatides			
	Undergraduate Student Rep	Vacant	2017	2018	
	Staff Representative	Vacant	2017	2018	
	Biology	D. Golemi-Kotra	2016	2019	
	Chemistry	M. Yousaf	2016	2019	
	Math & Stats	P. Szeptycki	2016	2019	
	Physics & Astronomy	R. Lewis	2016	2019	
	STS	V. Pavri	2016	2019	
Curriculum Committee	The <u>Curriculum Committee</u> shall include the Dean (<i>ex officio</i>) and an Associate Dean (<i>ex officio</i>), the Chair or nominee from each teaching Division or Department, the Chair or nominee of the Department of Geography, three faculty members elected by Council and two student members of Council.	The Curriculum Committee will normally meet every last Tuesday of each month (September to April) from 1:30 pm - 3:00 pm			
	Member at Large	J. Kreller-Vanderkooy	2016	2019	
	Member at Large	J. Clark, NATS	2016	2019	
	Member at Large	N. Nivilac, Biology	2016	2019	
	Dean	R. Jayawardhana			
	Associate Dean, Students	A. Mills			
	Undergraduate Student Rep (two vacancies)	Vacant	2017	2018	
	Undergraduate Student Rep (two vacancies)	Vacant	2017	2018	
	Biology	P. Lakin-Thomas	2016	2019	
	Chemistry	P. Potvin	2016	2019	
	Fu, Y. Cindy on vacation Jul 1-17-Jun 30-18(position is sha	Math & Stats	Vacant (Fall); M. Chen (Winter)	2017	2018
		Physics & Astronomy	A. Kumarakrishnan	2016	2019
		STS	J. Lazenby	2015	2018
		Geography	R. Bello	2016	2019
CEAS	The <u>Committee on Examinations and Academic Standards</u> shall consist of an Associate Dean (<i>ex officio</i>), five members elected by Council from each of Biology, Chemistry, Mathematics & Statistics, Physics & Astronomy and Science and Technology Studies/Natural Science, and one student member of Council.	CEAS will normally meet every alternate Wed / Thurs from 1:00 - 3:00 pm year round.			
	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.				
	Associate Dean, Students	A. Mills			
	Undergraduate Student Representatives (2 including alternate)	Vacant/ALT. member	2017	2018	
	Biology	Y. Sheng / K. Hudak	2016	2019	
	Chemistry	G. Audette / ALT. Vacant	2015/2017	2018/2020	
	Math & Stats	A. Wu / J. Grigull	2015	2018	

	Physics & Astronomy	C. Story/ALT. M. Horbatsch	2016	2019
	STS	Vacant / J. Lazenby	2017/15	2020/18
Petitions	The <u>Petitions Committee</u> 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.	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		
	Associate Dean	A. Mills, designated		
	Undergraduate Student Rep	Vacant	2017	2018
	Undergraduate Student Rep	Vacant	2017	2018
	Member at Large	N. Nivilac	2016	2019
	Biology	Vacant	2017	2020
	Chemistry	R. Fournier	2016	2019
	Physics & Astronomy	S. Tulin	2015	2018
	Math & Stats	A. Wong	2015	2018
D. Lungu on sabbatical from Jul 1, 2017 to Jun 30, 2018	STS	Vacant	2017	2018
SRC T & P Committee	The <u>Committee on Tenure and Promotions</u> 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.	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		
	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 unable to attend.			
	Associate Dean, Faculty	E. J. vanRensburg		
	Undergraduate Student Rep	Vacant	2017	2018
	Biology	Vacant (2)	2017	2020
	Chemistry	A. Orellana / ALT - P. Potvin	2016	2019
	Physics & Astronomy	N. Bartel / Vacant	2015/17	2018/20
	Math & Stats	G. Monette / ALT - S. Watson	2016	2019
D. Lungu on sabbatical from Jul 1, 2017 to Jun 30, 2018	STS	Vacant / ALT - Vacant	2017/17	2018/20
CoTL	Currently, the Committee on Teaching and Learning shall consist of a minimum of two Faculty members from each department, the Associate Dean – Students, one Librarian, one staff member, one undergraduate student, and two graduate students, in addition to other members invited as provided for by the Rules. Graduate students and staff nominees will indicate their interest in serving on the committee in writing to the committee, who will then approve by majority vote.	CoTL normally meets every third Thursday of each month (September to May) from 1:00 pm - 2:30 pm		
	Associate Dean, Students	A. Mills		
	Graduate Student Rep	Vacant	2017	2018
	Graduate Student Rep	Vacant	2017	2018
	Undergraduate Student Rep	Vacant	2017	2018
	Steacie Librarian	G. Jon		
	IT Rep	D. Keramidas		

	Teaching Commons Rep	Y. Su		
	Staff Representative	Vacant	2017	2018
	Biology	T. Kelly	2017	2020
	Biology	Vacant	2017	2020
	Biology	Vacant	2017	2020
	Chemistry	D. Jackson	2016	2017
	Chemistry	J. Chen	2015	2018
	Physics & Astronomy	A. Muzzin	2016	2018
	Physics & Astronomy	W.vanWijngaarden	2016	2018
	Math & Stats	W. Liu	2015	2018
	Math & Stats	A. Chow	2017	2020
on sabbatical from Jul 1, 2017 to Jun 30, 2018	STS	Vacant	2017	2019
	STS	V. Pavri	2015	2018
Research & Awards	The <u>Committee on Research and Awards</u> 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 (<i>ex officio</i>) who will serve as the Chair.	The Research & Awards Committee will meet when grants and awards need to be adjudicated.		
	Associate Dean - Research & Graduate education	S. Morin		
	Undergraduate Student Rep	Vacant	2017	2018
	Biology	Raymond Kwong	2017	2020
	Chemistry	P. Johnson	2016	2019
	Physics & Astronomy	W. van Wijngaarden	2016	2019
	Math & Stats	I. Farah	2016	2019
	STS	R. Metcalfe	2016	2019
Appeals	The <u>Appeals Committee</u> for the purpose of hearing student appeals shall consist of four elected faculty members from Science units, an Associate Dean (<i>ex officio</i>) 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.	Meeting is held once a month and times are polled by the Committee Secretary.		
	Associate Dean - Research & Graduate Education	S. Morin		
	Undergraduate Student Rep	Vacant	2017	2018
	Biology (Member at Large)	J.P. Paluzzi	2016	2019
	Biology	Vacant	2017	2020
	Chemistry	Vacant	2017	2020
	Physics & Astronomy	M. Johnson	2015	2018
	Math & Stats	A. Pietrowski	2015	2018
	STS	R. Metcalfe	2015	2018

York University

COUNCIL OF THE FACULTY OF SCIENCE

Report of the Science Curriculum Committee

February 2017

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 28, 2017, 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

Course Changes

1.1 Change in pre/co-requisites: SC/ BIOL 4020 3.00 "Genomics"

1.2 Change in CCE, integration: SC/ MATH 4081 3.0 "Topology I"

1.3 Change in calendar description, CCE: SC/NATS 1760 6.0 "Science, Technology and Society"

New course: MATH 6540 "General Topology" (for information only to show that Graduate Studies has been consulted)

Changes to Existing Courses & Degree Programs

Department:	Biology	Date of Submission:	November 10, 2016
Course Number:	BIOL 4020 3.00	Effective Session:	Fall 2017
Course Title:	Genomics		

Type of Change:

- | | |
|--|--|
| <input type="checkbox"/> in degree requirements | <input type="checkbox"/> in cross-listing |
| <input type="checkbox"/> in course number/level | <input type="checkbox"/> in degree credit exclusion(s) |
| <input type="checkbox"/> in credit value | <input type="checkbox"/> regularize course (from Special Topics) |
| <input type="checkbox"/> in title (max. 40 characters for short title) | <input type="checkbox"/> in course format/mode of delivery * |
| <input type="checkbox"/> in Calendar description (max. 40 words or 200 characters) | <input type="checkbox"/> retire/expire course |
| <input checked="" type="checkbox"/> in pre/co-requisite(s) | <input type="checkbox"/> other (please specify): |

Change From:

To:

SC/BIOL 2060 3.00 or SC/MATH 2560 3.00 or SC/MATH 2565 3.00 or HH/PSYC 2020 6.00 or HH/PSYC 2021 3.00 (or equivalent); SC/BIOL 3110 3.00; SC/BIOL 3200 3.00.	SC/BIOL 2060 3.00 or SC/MATH 2560 3.00 or SC/MATH 2565 3.00 or HH/PSYC 2020 6.00 or HH/PSYC 2021 3.00 (or equivalent); SC/BIOL 3130 3.00
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Rationale:

This proposed change aligns the prerequisites of the two "omics" courses, *genomics* (BIOL 4020, this document) and *proteomics* (BIOL 4030).

Molecular Biology II (BIOL 3130) is required to ensure students in BIOL 4020 have a strong foundation in gene expression and high-throughput applications. BIOL 3110 is required for BIOL 3130, so the change to BIOL 3130 maintains the BIOL 3110 prerequisite.

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:

Department:

Mathematics and Statistics

Date of Submission:

February 23, 2017

Course Number:

MATH 4081 3.0

Effective Session:

Summer 2018

Course Title:

Topology I

Type of Change:

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> | in pre-requisite(s)/co-requisite(s) | <input type="checkbox"/> | in cross-listing |
| <input type="checkbox"/> | in course number/level | <input checked="" type="checkbox"/> | in degree credit exclusion(s) |
| <input type="checkbox"/> | in credit value | <input type="checkbox"/> | regularize course (from Special Topics) |
| <input type="checkbox"/> | in title (max. 40 characters for short title) | <input type="checkbox"/> | in course format/mode of delivery * |
| <input type="checkbox"/> | in Calendar description (max. 40 words or 200 characters) | <input type="checkbox"/> | retire/expire course |
| <input checked="" type="checkbox"/> | other (please specify): Integrated with MATH 6540. | <input type="checkbox"/> | |

Change From:

To:

An introduction to general topology: topological spaces, continuity, connectedness, compactness, topology of metric spaces, countability axioms, and separation axioms. Prerequisites: SC/MATH 3210 3.00 or SC/MATH 3001 3.00 or permission of the course coordinator. Course credit exclusion: SC/MATH 4080 6.00.

An introduction to general topology: topological spaces, continuity, connectedness, compactness, topology of metric spaces, countability axioms, and separation axioms. Prerequisites: SC/MATH 3210 3.00 or SC/MATH 3001 3.00 or permission of the course coordinator. ~~Course credit exclusion: SC/MATH 4080 6.00.~~

Rationale:

The course MATH 4080 was last offered in 2007 so the course credit exclusion is no longer needed.

The topics covered in both courses MATH 4081 and MATH 6540 have significant overlap, with the material in the graduate course done at greater depth. So the two courses are well-situated to be integrated. Low enrollments in MATH 4081 makes it difficult to offer with any regularity so integrating will allow our Undergraduate Program to offer it more frequently, allowing our students a richer selection of courses. The last two times MATH 6540 was taught, undergraduate students attended the lectures as part of a formal reading project in Topology. So the courses have been informally integrated in practice.

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

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

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

Changes to Existing Course

Faculty:

Department:

Date of Submission:

Course Number:

Effective Session:

Course Title:

Type of Change:

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

Change From:

A study of the intellectual and social nature of science and technology, their similarities and differences. The course may deal with the impact of scientific and technological advancements on societies both past and present.

To:

A study of the intellectual and social nature of science and technology, their similarities and differences. The course may deal with the impact of scientific and technological advancements on societies both past and present. **Course credit exclusion: SC/NATS 1765 6.0**

Rationale:

NATS 1760 is a CCE for NATS 1765, so NATS 1765 should also be noted as a CCE for NATS 1760. This inclusion was inadvertently missed during the proposal and approval process of NATS 1765 (approved Fall 2016)

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.

New Course Proposal Form

The following information is required for all new course proposals. To facilitate the review/approval process, please use the headings below (and omit the italicized explanations below each heading).

1. Program: Mathematics

2. Course Number: MATH 6540

3. Credit Value: 3.0

4. Long Course Title: General Topology

5. Short Course Title: General Topology

6. Effective Session: Winter 2018

7. Calendar (Short) Course Description:

Filters, nets, separation, continuity, operations on topological spaces, function spaces, compactness, Stone-Cech compactification, connectedness, metric spaces, completeness, metrization theorems, covering properties, cardinal functions, dimension theory.

Integrated with MATH 4081

(REMARK: This is the same text as the original short course description with the added text listed in red)

8. Expanded Course Description:

See the original course

9. Rationale:

The topics covered in both courses have significant overlap, with the material in the graduate course done at greater depth. So the two courses are well situated to be integrated. Low enrollments in MATH 4081 makes it difficult to offer with any regularity so integrating will allow the Undergraduate Program to offer it more frequently, enriching the education experience for our undergraduates. The last two times MATH 6540 was taught, undergraduate students attended the lectures as part of a formal reading project in Topology. So the courses have been informally integrated in practice quite recently.

10. Evaluation:

Fundamental mastery of the material is evaluated primarily through written assignments requiring students to apply and expand on the theory by providing proofs of results expanding on what is discussed in lectures and applying the theory to fundamental examples in the field and to applications outside of Topology (typically in Functional Analysis but to other areas). Homework accounts for 60% of the grade
Final Exam 40%

11. Integrated Courses:

The proposal is to integrate MATH 6540 with MATH 4081. Undergraduate students enrolled in MATH 4081 will also be evaluated with an additional mid-term test evaluating students' understanding of fundamental concepts – e.g., understanding of definitions, statements of theorems, basic applications of the theory to examples etc... Students enrolled in the graduate course would not be evaluated on this basic level of mastery. In addition, homework assignments will be tailored to the two groups of students. While there will be some overlap in the questions and problems given to both groups of students, more challenging material appropriate for a Master's or PhD student will not be required for undergraduate students, and the more basic material appropriate for undergraduate students will not be part of the graduate students graded assignments. Similarly, the Final Exam will be tailored in the same way. Indeed, this is already being done in practice as the final exam for MATH 6540 serves both in the evaluation of the students' grades and as the comprehensive exam in General Topology in our PhD program. Students can achieve a high grade in the course by performing well on part of the final exam. Students wishing to pass the comprehensive are expected to achieve a minimum score on the more challenging portion of the Final Exam. Undergraduate students will not be expected to write the portion of the exam used in evaluation of the Topology Comprehensive Exam.

12. Crosslisted Courses:

N/A

13. Faculty Resources:

Paul Szeptycki, Ilijas Farah, Juris Steprans, Stephen Watson

14. Physical Resources:

classrooms with adequate blackboards are all that are required.

15. Bibliography and Library Statement:

Topology, by James Munkres 2nd edition, Prentice Hall
ISBN 0-13-181629-2

This text has been used in the past in both MATH 6540 and MATH 4081. There are a variety of other texts that would be appropriate for both courses.

Please submit completed forms and required supporting documentation by email to the Coordinator, Faculty Governance – mmschiff@yorku.ca