COUNCIL OF THE FACULTY OF SCIENCE

NOTICE OF MEETING

November 11, 2025

3:00pm – 4:30pm

via Zoom

AGENDA

1. **Call to Order and Approval of Agenda**
2. **Chair's Remarks**
3. **Approval of October 14, 2025 Minutes**
4. **Guest Speakers**
    a) Proposed Undergraduate Degree Framework:
    Joshua Thienpont, Assistant Professor, Environmental Science Program Coordinator
    Chloë Brushwood Rose, Professor, Vice-Provost Teaching & Learning
    Jennifer Bethune, Associate Director, Program Quality and Development
5. **Business Arising**
6. **Inquiries and Communications**
    a) Senate Synopsis October 23, 2025
7. **Dean's Remarks**
8. **Associate Dean and Head of Bethune College Remarks**
9. **Reports from Science Representatives on Senate Committees**
10. **Science Student Caucus Items**
11. **Reports from Standing Committees of Council**
    a) Executive Committee
        i. Ratification and Call for Nominations for Senate and Standing Committee of Council
        ii. Vacancies report on the Standing Committees of FSc Council
    b) Undergraduate Curriculum Committee
        i. Consent agenda items
        ii. Motion to affirm Undergraduate Curriculum Committee memo regarding the proposed Undergraduate Degree Framework
    c) Graduate Curriculum Committee
        i. Consent to agenda items
12. **Other Business**

COUNCIL OF THE FACULTY OF SCIENCE

October 14, 2025

3:00pm – 4:30pm

via Zoom

MINUTES

1. **Call to Order and Approval of Agenda**
   Chair of Council, A. McEachern, called the meeting to order and a motion was moved, seconded and carried to approve the agenda.

2. **Chair's Remarks**
   A. McEachern welcomed everyone to the meeting and wished everyone the best for the rest of the semester.

3. **Approval of September 9, 2025 Minutes**
   A motion was moved, seconded and carried to approve the minutes.

4. **Other Business:**
   - New Ethics Online Submission System: Alison Collins-Mrakas - Director, Office of Research Ethics

   This item was cancelled since the presenter was unable to attend.

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

5. **Inquiries and Communications**
   Council noted the Senate Synopsis of September 25, 2025

6. **Dean's Remarks**
   Dean Tsushima provide the following update:
   Faculties of the Future report
   A summary of the Faculties of the Future report prepared by Melissa Hughes – Sr. Advisor, Strategic Engagement & Policy was circulated to the Faculty listserv. One of the key recommendations in the report is for the Faculty of Science to collaborate with the Faculty of Health and the new School of Medicine including developing interdisciplinary curricula, fostering partnerships with the entrepreneurial ecosystem, and integrating research and experiential learning. The report also provided an update of the new timelines of the new School of Medicine. Another key take away is for FSc to interact and engage with Glendon

   College, notably the integration of the Mathematics & Biology programs. To this end, Dean Tsushima informed council that he convened a meeting with Glendon's Principal – Dr. Marco

Fiola, Interim Chair of the Department of Biology – Dr. Tamara Kelly and the Chair of the Department of Mathematics & Statistics – Dr. Michael Haslam. Additionally, the report encouraged FSc and LSE to collaborate on curriculum design and pedagogy to improve our students' learning experience.

Update on budget and staffing

This fiscal year 2025-26, Fsc is aligned with the projected budget which includes a projected deficit of $ 15 million with an anticipated continuing deficit over the next three years. To manage these financial pressures, since June 2025 FSc has made the difficult decision to close some CPM and YUSA positions.

Undergraduate Student Recruitment

Dean Tsushima strongly encouraged faculty members and students to attend Fall Campus Day which is on October 25, 2025 at Keele campus, and on November 1, 2025 at Markham campus.

7. Associate Dean and Head of Bethune College Remarks

a) A. Skelton - Associate Dean, Faculty Affairs

i. Sabbatical reports are due November 1, 2025
ii. Results of Advancement to Candidacy is November 1, 2025
iii. Nomination deadline to apply for the position of 'Head of Bethune College' is October 31, 2025.

b) S. Moghadas - Associate Dean, Research & Graduate Education

AD – Moghadas encouraged all faculty members to refer to the weekly 'FSc Funding Update' newsletter that was sent early today for the upcoming deadlines for NSERC RTI, DG, while keeping in mind our FSc Research Office deadlines, especially if an administrative review is required for a grant application.

c) P. Wilson - Head of Bethune College

There was none.

8. Reports from Science Representatives on Senate Committees

There was none.

9. Science Student Caucus Items

There was none.

10. Reports from Standing Committees of Council

a) Executive Committee

> Ratification and Call for Nominations for Senate and Standing Committee of Council

A motion was moved, seconded and carried to ratify all nominations to the Standing Committees of Council.

> Vacancies report on the Standing Committees of FSc Council

Council noted the report.

> Revision to Rules of Council

A motion was moved, seconded and carried to ratify the Revision to Rules of Council.

Meeting Adjournment

A motion was moved, seconded and carried to adjourn the meeting.

FACULTY COUNCIL ATTENDANCE

October 14, 2025

Ore Adekunle
Racheal Ajadi
Fatima Alnaser
Emily Anacleto
Abisola Anifowose
Taline Apelian-Sutor
Mary Armour
Jade Atallah
Mark Bayfield
Kyle Belozerov
Wendy Booth
Khansa Cheema
Steven Chen
Hugo Chen
Julie Clark
Gordon Craig
Karyn Davies
James Elwick
Nadia Fatima
Rene Fournier
Ed Furman
Matt George
Sanaz Gholizadeh
Ryan Hili
Delwar Hossain
Paniz Hosseinipour
Melissa Hughes
Ruth Igumbor
Derek Jackson
Stanislaw Jerzak
Tom Kirchner
Hovig Kouyoumdjian
Nik Kovinich
Gino Lavoie
Jerusha Lederman
Allysa Lumley
Neal Madras
Jinmin Mao
Casey McKenna
Robin Metcalfe
Seyed Moghadas
Mostofa Mohiuddin
Georges Monette
Natalie Moussa
Fatema Nakhuda
Nicole Nivillac
Gloria Orchard
Jean-Paul Paluzzi
Vera Pavri
Luz Puentes Jacome
Mandy Ramnaraine
Miranda Ramnaraine
Cora Reist
Martin Romero
Acacia Rose
Vivian Saridakis
Ryan Schott
Brad Sheeller
Yi Sheng
Valeriia Shvetsova
Andrew Skelton
Ayesha Tahir
Wendy Taylor
Rohit Tiwari
Robert Tsushima
Jennifer van Wijngaarden
Mario Verrilli
Mark Vicari
Stephen Watson
Jeremy Webb
Paula Wilson
Alex Wiscicka
Woldegebriel Assefa Woldegerima
Maggie Xu

2025-2026 FSc Report on Vacancies for Senate and FSc Standing Committees of Council

RATIFICATION OF NOMINATIONS

Committee on Teaching and Learning (CoTL)
W. Liu, Mathematics and Statistics. Term 2025-2028.

Committee on Equity, Diversity and Inclusion
M. Omar, Mathematics and Statistics. Term 2025-2028.

Executive Committee
G. Monett, Mathematics and Statistics. Term 2025-2028.

Petitions
J. Webb, Member at Large. Term 2025-2026.
Satyam Verma, Undergraduate Student Rep. Term 2025-2026

SRC Tenure & Promotion Committee
E.J. Janse van Rensburg, Mathematics and Statistics. Term 2025-2028.

2025-2026 FSc Report on vacancies for Senate and FSc Standing Committees

Committee	Rules of Faculty Council - membership	Meeting time / Membership		
			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 twelve 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		
	Dean, Ex officio	R. Tsushima	Designated	
	Member at large	A. Skelton	Designated	
	Member at large	E. Hamm, Department of Science, Technology & Society	2024	2027
	Member at large	R. Hili, Department of Chemistry	2025	2028
	Member at large	T. Kelly, Department of Biology	2024	2027
	Member at large	W. van Wijngaarden, Department of Physics and Astronomy	2025	2028
	Member at large	T. Kubiseski, Department of Biology	2023	2026
	Member at large	VACANT	2025	2028
	Department Chair	T. Kirchner, Department of Science, Physics & Astronomy	2024	2027
	Department Chair	J. van Wijngaarden, Department of Chemistry	2024	2027
	Department Chair	M. Haslam, Department of Mathematics & Statistics	2023	2026
	Director of NATS	R. Metcalfe, Division of Natural Science	Designated	
	Student representative	Taline Apelian-Sutor	2025	2027
	Student representative	Raman Mir Eshghi	2025	2027
Faculty Council	Chair of Council	A. McEachern	2025	2026
	Vice-Chair of Council	V. Pavri	2025	2026
Staff Representatives		W. Booth	2025	2026
		D. Hossain	2025	2026
		M. Xu	2025	2026
FSc Reps on Senate Committees				
Senate Executive	1 member from FSc	T. Kelly	2024	2027
Academic Policy, Planning and Research Committee (APPRC)	1 member from FSc	G. Monette	2023	2026
ASCP (Academic Standards, Curriculum and Pedagogy Committee)	1 member from FSc	J. Elwick	2024	2027
Senate Tenure & Promotion	1 member from FSc	P. Wilson	2024	2027
Sub-Committee on Honorary Degrees & Ceremonials	1 member from FSc	VACANT	2025	2028
Executive Committee	The Executive Committee shall be chaired by the Chair of Council and include the Vice-Chair of Council, the Secretary of Council, and one member elected from each of Biology, Chemistry, Mathematics & Statistics, Physics & Astronomy, and Science, Technology & Society/Natural Science, the Dean of the Faculty of Science (ex officio), one student member of Council, and one of the staff members elected to Council.	Executive Committee normally meets the first Tuesday of each month (September to May) from 3pm - 430pm		
	Chair of Council	A. McEachern	2025	2026
	Vice-Chair of Council	J. Webb	2025	2026
	Dean, Ex officio	R. Tsushima	Designated	
	Asst. Dean - SEM & SEP	E. Hughes	Designated	
	Staff representative	W. Booth	2025	2026
	Undergraduate Student Rep	Seyedeh Lilia Modarresi Saryazdi	2025	2026
	Biology	M. Vicari	2023	2026
	Chemistry	C. Caputo	2024	2027
	Math & Stats	G. Monette	2025	2028
	Physics & Astronomy	W. Taylor	2025	2028
	Science, Technology & Society	V. Pavri	2025	2028
APPC	The Academic Policy and Planning Committee shall include the Dean or designate (*ex officio*), the Master of Norman Bethune College and one member elected from each of Biology, Chemistry, Mathematics & Statistics, Physics & Astronomy, and Science, Technology & Society/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, (ex officio)	A. Skelton	Designated	
	Head of Bethune College	P. Wilson	Designated	
	Undergraduate Student Representative	Parmida Khodrang	2025	2026
	Elected staff representative	M. Xu	2025	2026
	Biology	R. Schott	2023	2026
	Chemistry	R. Fournier	2023	2026
	Math & Stats	P. Szeptycki	2023	2026
	Physics & Astronomy	W. van Wijngaarden	2025	2026
	Science, Technology & Society	VACANT	2025	2028
Undergraduate Curriculum Committee	The Curriculum Committee shall include the Dean and an Associate Dean (ex officio), the Chair or nominee from each teaching Division or Department, three members elected by Council and two student members of Council.	The Curriculum Committee will normally meet every last Tuesday of each month (September to April) from 9:00 - 10:30 am		
	Member at Large	VACANT	2025	2028
	Member at Large	Paula Wilson	2023	2026
	Dean, Ex officio	R. Tsushuima	Designated	
	Undergraduate Student Rep	S.Paniz Hosseinipour	2025	2026
	Undergraduate Student Rep	Racheal Ajadi	2025	2026
	Biology	J. Atallah	2023	2026
	Chemistry	D. Jackson	2025	2028
	Math & Stats	M.W. Wong	2023	2026
	Physics & Astronomy	N. Blinov (F) / P.Hall (W)	2025/2025	2025/2029
	Science, Technology & Society	R. Metcalfe,/ ALT. J. Rogerson	2025	2027
	Member at Large	L. Robertson	2023	2026

2025-2026 FSc Report on vacancies for Senate and FSc Standing Committees

Committee	Rules of Faculty Council - membership	Meeting time / Membership	From	To
CEAS	The Committee on Examinations and Academic Standards shall consist of an Associate Dean (*ex officio*), five members elected by Council from each of Biology, Chemistry, Mathematics & Statistics, Physics & Astronomy and Science, Technology & Society/Natural Science, and one student member of Council.	CEAS will normally meet every alternate 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, Ex officio	M. Scheid	Designated	
	Undergraduate Student Rep	Sophia Luzskov	2025	2026
	Undergraduate Student Rep	Madeline Blanco	2025	2026
	Biology	A. Hilliker, VACANT / ALT. VACANT	2023/2025	2026/2028
	Chemistry	P. Johnson & T.Zeng / ALT. VACANT	2023/2023	2026/2026
	Math & Stats	VACANT, VACANT / ALT. VACANT	2025/2025	2028/2028
	Physics & Astronomy	S. Tulin, B. Howard / ALT. C. Storry	2025/2025	2026/2026
	Science, Technology & Society	K. Birch / ALT. S. Domenikos	2025/2023	2028/2026
Petitions	The Petitions Committee for the purpose of hearing student petitions shall consist of an Associate Dean (*ex officio*), six members of Council, and two student members of Council. The Committee may divide the workload by splitting the Committee membership into two panels of four people each. A quorum shall consist of either (a) two faculty voting faculty members and one student member or (b) three voting faculty members.	Each panel meets once a month on Wednesday or Thursday from 2:30 pm - 4:00 pm		
	Associate Dean, Ex officio	M. Scheid	Designated	
	Undergraduate Student Rep	Nadia Fatima	2025	2026
	Undergraduate Student Rep	Satyam Verma	2025	2026
	Undergraduate Student Rep	Precious Fagbenro	2025	2026
	Member at Large	E. McFarlane	2025	2028
	Biology	C. Jang	2025	2028
	Chemistry	D. Jackson	2025	2028
	Physics & Astronomy	S. Jerzak	2025	2026
	Math & Stats	H. Jankowski	2025	2028
	Science, Technology & Society	C. Douglas	2025	2028
	Member at Large (STS)	J. Webb	2025	2026
	Member at Large	VACANT	2025	2026
	Member at Large (Biology)	A. Mills	2023	2026
SRC T & P Committee	The Committee on Tenure and Promotions shall consist of one currently tenured member from each of Biology, Chemistry, Mathematics & Statistics, Physics & Astronomy and Science, Technology & Society/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 May) 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 not in attendance.			
	Associate Dean - Faculty, Ex officio	A. Skelton	Designated	
	Undergraduate Student	Valeriia Shvetsova	2025	2026
	Biology	M. Bayfield/ ALT. VACANT	2023/2025	2026/2028
	Chemistry	A. Orellana/ ALT. S. Krylov	2023/2024	2026/2027
	Physics & Astronomy	M. George (Fall), C. Bergevin (Winter) / ALT. R. Lewis	2025/2025	2026/2026
	Math & Stats	Y.Gao / ALT. B. van Rensburg	2024/2025	2027/2028
	Science, Technology & Society	S. Domenikos / ALT. D. Lungu	2025/2023	2028/2026
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 10:00 am - 11:30 am		
	Associate Dean - Students, Ex officio	M. Scheid	Designated	
	Graduate Student Representative	Fatema Nakhuda	2025	2026
	Graduate Student Representative	Sanaz Gholizadeh	2025	2026
	Undergraduate Student Representative	Setareh Ghorbani Sini	2025	2026
	Stacie Science Library	M. Wang	Designated	
	IT Representative	VACANT	Designated	
	Teaching Commons Rep	Y. Su	Designated	
	Staff representative, Elected	D. Hossain	2025	2026
	Biology	L. Adriana Puentes Jacome	2024	2027
	Biology	J. Atallah	2023	2026
	Chemistry	H. Kouyoumdjian	2025	2026
	Chemistry	D. Wilson	2025	2028
	Physics & Astronomy	N. Blinov	2025	2026
	Physics & Astronomy	C. Boukare	2025	2026
	Math & Stats	W. Liu	2025	2028
	Math & Stats	VACANT	2025	2028
	Science, Technology & Society	C. Rozins	2024	2027
Committee on Research & Awards	The Committee on Research and Awards shall consist of one member elected by Council from each of Biology, Chemistry, Mathematics and Statistics, Science, Technology & Society/Natural Science, and Physics and Astronomy, one student member of Council and an Associate Dean (*ex officio*).	The Research & Awards Committee will meet when grants and awards need to be adjudicated.		
	Associate Dean - Research & Graduate Education, Ex officio	S. Moghadas	Designated	
	Undergraduate Student Representative	Ruth Igumbor	2025	2026
	Graduate Student	Aysa Tajeri Emamchaei	2025	2026
	Biology	D. Golemi-Kotra	2023	2026
	Chemistry	T. Baumgartner	2025	2028
	Physics & Astronomy	R. Kannan	2025	2026
	Math & Stats	H. Zhu	2023	2026
	Science, Technology & Society	H. Mialet	2023	2026
Appeals Committee	The Appeal Committee for the purpose of hearing student appeals shall consist of four elected faculty members from Science units, an Associate Dean (ex officio) and two student members of Council. A quorum shall consist of either (a) two faculty members and one student member or (b) three faculty members.	Meeting is held once a month and times are polled by the Committee Secretary.		
	Associate Dean - Faculty, Ex officio	A. Skelton	Designated	
	Undergraduate Student Representative	Ayesha Tahir	2025	2026
	Undergraduate Student Representative	Abisola Anifowose	2025	2026
	Member at Large	VACANT	2025	2028
	Biology	L. Donaldson	2023	2026
	Chemistry	L. Hiscock	2023	2026
	Physics & Astronomy	P. Sholz	2025	2026
	Math & Stats	M.W. Wong	2023	2026
	Science, Technology & Society	D. Monaldi	2023	2026

2025-2026 FSc Report on vacancies for Senate and FSc Standing Committees

Committee	Rules of Faculty Council - membership	Meeting time / Membership		
			From	To
Graduate Curriculum Committee	To provide broad review and commendation to Council via the Academic Policy and Planning Committee of all proposals received from Graduate Programs with respect to: New Course Proposals , Course Change Proposals, Minor Changes to Program/Graduate Diploma Academic Requirements, Major Modifications to Program/Graduate Diploma Academic Requirements, New Graduate Fields, New Graduate Diplomas, New Graduate Degree Programs The Graduate Education Committee shall consist of: - Associate Dean – Research & Graduate Education (ex officio) - Graduate Program Director (or designate who must be a member of the graduate program) of each Graduate Program in the Faculty of Science -one graduate student member from any Graduate Program within the Faculty of Science -one full-time faculty member from the Faculty of Health or Lassonde School of Engineering who is appointed to teach in any FSc graduate program - A member at large with knowledge of graduate programming, and experience with curriculum approvals at the Faculty-level. The Chair of the Committee is selected by the voting members of the Committee for a one-year term.	Meeting is held based on availability.		
	Associate Dean – Associate Dean Students, Ex officio	M. Scheid	Designated	
	Biology	J. Paluzzi	2023	2026
	Chemistry	R. Hili	2023	2026
	Physics & Astronomy	A. Muzzin	2023	2026
	Math & Stats	P. Ingram	2023	2026
	Science, Technology & Society	VACANT		
	Member from Faculty of Health OR Lassonde	VACANT		
	Member at Large	D. Golemi-Kotra	2023	2026
	Graduate student	Elizaveta Yakubovskaya	2025	2026
Committee on Equity, Diversity & Inclusion	The purpose of the Committee on Equity, Diversity & Inclusivity is to provide broad review and leadership to Council on matters of Equity, Diversity and Inclusivity issues with respect to: • Tenure and Promotions • Hiring and Retention of members form EDI groups • Approaches to addressing gender bias in the workplace • Research engaging equity recognized groups • Workload and service contributions of EDI members • EDI experiences in Teaching and Learning The Equity, Diversity and Inclusivity committee shall consist of: • Associate Dean, Faculty Affairs (ex officio) • Associate Dean,Research and Partnerships (ex officio) • One primary and one alternate member from each of Biology, Chemistry, Mathematics & Statistics, Physics & Astronomy and Science, Technology & Society. • Two graduate students or postdoctoral fellow/visitors (one primary and one alternate) from any graduate program within the Faculty of Science • One undergraduate student	Meeting is held the last Wednesday of every month.		
	Associate Dean - Faculty, Ex officio	A. Skelton	Designated	
	Associate Dean, Dean - Research & Graduate Education, Ex officio	S.Moghadas	Designated	
	Undergraduate Student Representative	Natalie Moussa	2025	2026
	Graduate Student	Katherine Myers	2025	2026
	Graduate Student	Emily Anacleto	2025	2026
	Biology	D. Golemi-Kotra	2024	2027
	Chemistry	C. Young	2023	2026
	Physics & Astronomy	A. Kumarakrishnan	2025	2026
	Math & Stats	M. Omar	2025	2028
	Science, Technology & Society	J. Lazenby	2025	2026

Proposed Undergraduate Degree Framework Overview

Draft policy follows on page 7

History and Current Challenges

Undergraduate degrees at York are governed by two senate policies, the BA Matrix and the BSc Degree Framework, approved in 2011 and 2014 respectively. These frameworks were developed as the result of the efforts of several task forces and working groups dating to the 1990s.

York's current senate-approved policies apply only to the BA and the BSc. While other degree types may fall under faculty rules for degree requirements, the degree requirements for new undergraduate degree types, which are increasingly frequently approved by senate, are not governed by any senate policy. For example, two recently approved BASc (Bachelor of Applied Science) programs at Markham have very few breadth requirements, since they don't fall under the BA matrix or the BSc Degree Framework. Relatedly, faculties may interpret the existing policies liberally, which is the case for Glendon's BA programs. Other issues identified are students overtaking 1000-level credits, and complex degree requirements negatively affecting student experience and retention.

The development and approval of these two frameworks coincided with sector wide quality assurance initiatives, including the approval of province-wide Degree-Level Expectations and the Quality Assurance Framework by the Ontario Council of Academic Vice-Presidents in 2008 and 2010 respectively. These sector-wide frameworks are now deeply embedded in York's own quality assurance processes, including cyclical program review and new program approvals. York is held accountable to these frameworks through its ongoing engagement with the Ontario Universities Council on Quality Assurance, which approves new programs, reviews York's cyclical program review activity, and conducts an audit of York's quality assurance processes every eight years.

The current Working Group was established as part of the YU Forward Action Plan to respond to a number of issues that have been identified in relation to current policies governing undergraduate degrees. The two co-chairs invited members from across the university, with the goal of cross-faculty representation and Senate oversight, via the Senate Committee on Academic Standards, Curriculum and Pedagogy (ASCP). The Working Group considered existing challenges along the following themes:

Pan-university framework: The current senate policies address only the BA and the BSc, meaning that the proliferation of new degree types since the two existing undergraduate degree frameworks were originally conceived are not covered by a Senate-level policy. A revised framework should cover all new and existing degree types (with some exceptions for accredited programs, etc.)

Student experience: Student experience is negatively affected by complex requirements. A revised framework should be attractive to students and the purpose of each requirement should be clearly articulated. The framework should be designed in such a way that it is not perceived as (or experienced as) as punitive or onerous.

Cap on 1000-level credits: York is one of few institutions without an institutional cap on 1000-level credits, and indeed, many students graduate with more than the expected 30 – 36 credits at the 1000 level. While some faculties impose their own caps, these are not enforced. This leads to the dilution of the degree and a lack of curricular coherence, especially when students fill their schedules with 1000-level courses in upper years. A revised framework should introduce a maximum for 1000-level credits, in line with sector norms.

An expansive view of breadth: Undergraduate degree requirements should encourage students to explore the full scope of the university's offerings early in their degree programs, according to their personal, professional, and academic interests. Degree requirements should also provide for breadth across the study levels and encourage students to take upper-level courses outside of their major. In other words, a revised degree framework should include both a lateral (across disciplines) as well as a vertical (across study levels) view of breadth.

Policy Development Process and Timeline

The Working Group included members familiar with the current undergraduate degree and general education model, including faculty members from the Department of Humanities, the Department of Social Sciences, and the Department of Science, Technology, and Society, as well as members whose roles as Associate Deans/Deans provide them with extensive knowledge of enrolment patterns and advising pressures at the faculty level. The list of members is available on the project web page, here: York U Forward Action Plan.

The Working Group also included two ASCP members who provided updates to and consulted with the senate committee biweekly. This report was a standing item on the ASCP agenda for the 2024-25 academic year. The draft policy was presented in full to ASCP on April 9, 2025, and ASCP endorsed a revised draft of the policy for further consultation on April 23, 2025.

The consultation process is being led by ASCP. Consultations with each Faculty Council are being led by ASCP Chair Josh Thienpont, with the participation of the working group co-chairs, Kate McPherson and Chloë Brushwood Rose. ASCP will also host student consultations during the 2025-26 academic year. Additionally, community members are invited to provide feedback

on the policy to ASCP directly via MachForm. ASCP members will review this feedback in late fall, 2025.

The following meetings and consultations have already taken place and have helped shape the policy's development.

Date	Consultation	Notes
October 2024 - April 2025	Bi-weekly working group meetings	Special presentations: LA&PS Planning Process; York Libraries Digital and Information Literacy; Glendon Core
October 2024 – April 2025	Standing Report to ASCP at its regular meetings	Meeting dates: October 30, November 13, November 27, December 11, January 22, February 5, February 26, March 5, March 19, April 9, April 23.
December 3, 2024	Faculty of Science, Associate Dean Students	
December 3, 2024	Glendon, Associate Principal Academic	Included feedback from Glendon academic services staff
December 11, 2024	ASCP	Detailed presentation and update for feedback
January 15, 2025	Records and Scheduling Leadership Team, Office of the University Registrar (OUR)	
February 11, 2025	Natural Sciences (NATS), Director	
April 3, 2025	Vice-Provost Academic and Director, Academic Programs and Policy	
April 8, 2025	Program, Proposal, Policy Review and Implementation Committee Experts (PPPRICE)	Membership made up of Office of the Vice Provost, Academic, OUR, and Secretariat representatives)
April 8, 2025	Deans' Forum	
April 9, 2025	ASCP	Draft Framework presented for feedback
April 23, 2025	ASCP	Draft Framework ENDORSED - moved forward for wider consultation
May 6, 2025	Deans' Forum	Full draft Framework presented
May 8, 2025	APPRC	Full draft Framework presented
June 2, 2025	Office of the University Registrar	Included Associate Registrar, Student Records and Scheduling, Director, Student Systems and Assistant Director, Calendar and Curriculum
July 8, 2025	Director, Strategic Enrolment, Recruitment & Faculty Affairs, LA&PS	
August 20, 2025	Office of the University Registrar	
August 21, 2025	University Lead, Student Advising & Retention Initiatives	

Policy Overview

Pan University Framework:

The policy applies to all new and existing undergraduate degrees, with exceptions for some highly-specialized programs (e.g., BASc, Digital Technologies) and accredited programs (e.g., BScN, BEd).This allows for increased collaboration across faculties and provides a starting for future pan-university initiatives, and ensures that going forward, all students will have the same opportunities to explore both within and beyond their discipline.

Note: programs have been excepted when their courses and/or course sequencing is prescribed by an accrediting body, when they are designed as second-entry programs, or when intensive WIL or other specialized programing restricts program design and course sequencing. A full list of exceptions is included in the policy.

Maximum number of 1000-level credits:

Students may only apply 42 1000-level credits to their degree. This is in line with sector norms. In fact, York is one of very few universities without a limit on the number of first-year credits a student can take. A maximum of 42 1000-level credits is typical in many Ontario universities.

Limiting the number of 1000-level credits will encourage students to focus their studies, either by taking additional credits in the major or by adding a certificate, minor, or second major, rather than padding their degree with a large number of unconnected 1000-level courses. This enhances the student experience by providing more opportunity for students to find cohesiveness and connection either within a major or second discipline, which in turn has the benefit of enhanced curricular coherence but also increased opportunity for cohort building and sustained inter-personal connection – characteristics that increase student satisfaction and retention. Certain specialized courses, for example, credit recovery courses, will be excepted.

Breadth Credits:

The revised framework envisions the undergraduate degree requirements as a pyramid: in the first year, students explore broadly. In subsequent years, students narrow their focus, making connections between subjects with greater sophistication, until the final years, when students are immersed in their major. The category names “Explore,” “Connect,” and “Major” refer directly to their purpose within the degree.

The Explore requirement distributes the first-year breadth requirement widely across the university, encouraging students to explore modes of inquiry, meaning-making, and knowledge creation that they might not otherwise encounter, and that reflect the current landscape of

university education. To satisfy the Explore requirement, students take courses across four categories, each of which includes courses from various Faculties and departments. The categories are: Social Worlds, Creativity and Cultures, Scientific Foundations, and Inquiry in Action.

The Connect requirement shifts what are currently known as the 'outside the major' credits to the 2000-level or higher, encouraging more sophisticated levels of engagement with an area outside the major, adding an element of "depth" to this breadth requirement. Many students will use this opportunity to pursue a minor, which adds an additional credential as well as coherence to the degree. While declaring a minor is already an option for students, working group members noted that this option seems to be currently be less attractive given the opportunity to take less challenging 1000-level courses.

Potential Impact

Student Experience

Overall, the proposed policy will improve students' experience. Students stand to benefit from a simplified framework that provides opportunity to explore subjects that are aligned with their personal and professional interests. The revised requirements reduce the likelihood of situations that feel punitive to students, such as having to take new breadth requirements after switching majors. They have been designed to open doors to further exploration through more advanced study. Finally, clearly articulated degree requirements accompanied by fresh, student-facing communications may drive positive outcomes in terms of retention and recruitment.

Lateral Distribution of Breadth

The diversity of study options at York has expanded over the decades. Our curriculum should be structured in a way that values and encourages exploration across this expanding landscape. Including the full range of disciplines and fields of study available at York as part of the breadth requirement highlights a commitment to fostering connection and collaboration across faculties. The Explore categories are designed to be meaningful and engaging to current and prospectives students in the current context, while reflecting the traditions of the liberal arts university.

Vertical Distribution of Breadth

The proposed breadth requirements, taken alongside the cap on 1000-level credits, distribute breadth through students' levels of study as well as across the university. By reducing the number of credits at the 1000-level and requiring 18 credits outside the major at the 2000-level or higher, students are encouraged to spend more time in advanced study, either in their major, in a minor, or in courses that relate to their explore courses. This more focused

academic structure has a complementary benefit in terms of improved social connections within the major program, which may have a positive impact on retention and time-to-completion.

Faculty-level Enrolment

Upon implementation, it is expected that there will be a *gradual* reduction in demand for 1000-level courses and an increase in demand and/or fill rates for courses at the 2000-level and higher. This has a positive effect for students: as demand increases for courses at the 2000-level and higher, it is anticipated that there will be fewer course cancellations, fewer scheduling issues, and greater choice for students completing their major (and/or minor) requirements. At present, capacity for 1000-level teaching is concentrated in a few departments. However, as capacity builds for 1000-level teaching across all faculties, there may be shifts in where students opt to take breadth credits. For the most part, students will have several 1000-level credits left to "spend" on courses outside of the required Explore credits – it is anticipated that they will continue to use these credits according to current enrolment patterns.

Implementation Planning and Timeline

Initial discussions are underway with the Registrar's Office to determine a timeline for implementation. The Office of the Vice-Provost Academic has also been consulted and is prepared to assist units in facilitating the minor modifications that may need to occur to support these changes. Given the lead-times required for faculty governance, systems and calendar changes, the implementation date has yet to be determined but will not be before Fall 2027.

University Policy/Procedures/Guidelines

Undergraduate Degree Framework

Topic:	
Approval Authority:	
Approval Date:	
Effective Date:	
Last Revised:	N/A Replaces BA Matrix and BSc Degree Level Expectations.

1. Preamble

In 2011 / 2014, York University Senate approved the BA Matrix and the BSc Degree Level Expectations. These documents outlined the requirements for BA and BSc degrees at York in terms of breadth, minimum credits in the major, minimum credits in the major and outside the major, and minimum credit requirements at the 3000 and 4000 level.

In 2024, a working group was established to review and revise these requirements to develop a policy that covers all current and future undergraduate degree types. This policy replaces the BA Matrix (approved by Senate in 2014) and the BSc Pan-University Degree Structure (approved by Senate in 2011).

The policy recognizes the following principles for undergraduate degree requirements at York:

i. Requirements will apply to all existing and future undergraduate degrees (with exceptions noted in Section 3).
ii. Requirements will be clear, and the purpose of each requirement will be transparent to students.

iii. Requirements will maximize flexibility within and across programs and not unnecessarily penalize students who transfer from one program to another.
iv. Requirements will ensure that each undergraduate degree offered at York provides students with breadth across a wide range of subjects at the introductory level, as well as the opportunity to connect their learning across study levels and specialize in one or more disciplines.

2. Purpose

The policy establishes:

i. Credit minimums for degrees, first majors, additional majors, minors.
ii. Credit minimums within breadth and study level categories that comprise the general education components of the degree.
iii. A maximum for 1000-level credits that may be counted toward the fulfilment of the degree requirements.

3. Scope and Application

i. This policy applies to all new and existing undergraduate degrees at York, except:
    a. Bachelor of Education
    b. Bachelor of Engineering
    c. Bachelor of Business Administration
    d. Bachelor of Applied Science, Digital Technologies
    e. Bachelor of Applied Science, Computer Science for Software Development
    f. Bachelor Science, Nursing, (including Direct Entry, Second Entry, and Internationally Educated Nurse)
    g. Bachelor of Social Work (Post-Degree)
ii. This policy is effective as of DATE and will not be applied retroactively. It applies to students who begin a new degree after DATE.
iii. Students who reapply to York after an extended absence must meet the requirements in this policy, regardless of their initial enrolment date.

4. Definitions

i. **Explore credits** refer to credits at the 1000-level that students are required to take as the breadth component an undergraduate degree at York.
ii. **Connect credits** refer to credits outside the major at the 2000 level or higher.
iii. **Explore categories** refers to the breadth categories from which students may choose their Explore credits. Students must have at least 3 1000-level credits in each of the four Explore categories.
iv. **1000-level credits** are credits that have a course rubric in the 1000 range.
v. **Science credits** are credits with any of the following rubrics: SC/BIOL, SC/BPHS, SC/CHEM, SC/BCHM, SC/ENVB, SC/STSO, SC/GEOG, LE/EATS, HH/KINE, HH/PSYC, SC/MATB, SC/MATH, SC/PHYS, GL/BIOL, GL/MATH, GL/PSYC, LE/EECS, SC/CHEM

5. Roles and responsibilities

i. Students are responsible for ensuring that they meet the requirements for fulfilment of the degree, as defined in this policy and in the calendar.
ii. Each academic unit offering undergraduate degrees is responsible for ensuring that degree program requirements reflect the minimum requirements outlined in this policy.
iii. The Office of the University Registrar is responsible for ensuring that the Academic Calendar accurately communicates the requirements outlined in this policy.

6. Policy

6.1 **Maximum number of 1000-level credits:** Only 42 1000-level credits may be counted toward the fulfilment of the degree. Transfer credits deemed to satisfy 1000-level credits at York will be evaluated according to York's established practices and may be used to satisfy the Explore requirement.

6.2 **Explore Credits: Breadth**

Among the credits counted toward the fulfillment of the degree requirement, students in all undergraduate programs covered by this policy are required to complete at least 18 Explore credits at the 1000 level. Normally, students will complete this requirement within their first 30 credits.

Students must complete at least 3 credits in each of the four Explore categories below. 1000-level credits in the first major and/or a minor and/or a second major can be counted toward this requirement. Please see Appendix A for the list of course rubrics in each category.

- Creativity and Cultures
- Social Worlds
- Scientific Foundations
- Inquiry in Action

6.3 **Connect Credits: Credits Outside the Major**

Among the credits counted toward the fulfilment of the degree requirements, students in all undergraduate programs covered by this policy are required to complete at least 18 credits outside the major at the 2000 level or higher. Normally, these will be completed after the student has completed the first 30 credits.

In the following cases, major requirements may be counted toward Connect credits. In all other cases, major requirements may not be used to satisfy this requirement.

- Non-major language instruction courses used to satisfy bilingual requirements of a GL degree.
- In BSc degree programs, credits listed in the “Major requirements” category that are not in the major discipline.
- Glendon Core courses at the 2000 level and higher, for a GL degree.

For students graduating with a minor or a second major, the second major or minor credits will be deemed to satisfy this requirement.

6.4 **Major Credits:**

The table below lists the minimum required major and minor (where applicable) credits for each degree type as well as the minimum required number of credits at the 3000-level or above, the minimum number of 4000-level credits required, and the minimum number of major credits required at the 4000-level.

The table shows minimum requirements only. Programs may have requirements that exceed the requirements listed below, as well as additional program requirements.

Degree type	Total credit count minimum	Major	Second Major	Minor	Upper-level major credits	3000-4000 level credits total	4000 credits total
Ordinary (90 credit)	90	30	N/A	N/A	12 at 3000 or 4000 level	18	N/A
Honours (120 credit)	120	42	N/A	N/A	12 at the 4000-level	42	18
Honours Double Major	120	42	42	N/A	12 at the 4000 level in each major	42	18
Honours Major/Minor	120	42	N/A	30	12 at the 4000 level in the major; 6 at the 4000 level in the minor	42	18
Specialized Honours	120	54	N/A	N/A	12 at the 4000 level	42	18

6.5 **Science credit minimum requirements**

Students graduating with a BSc must complete a minimum number of science credits (see definition above) toward the fulfilment of the degree requirements, as outlined below. Some programs may have higher requirements.

Degree type	Minimum science credit requirement.
Ordinary (90 credit)	54

Degree type	Minimum science credit requirement.
Honours (120 credit)	66
Honours Double Maj	66
Honours Major/Minor	87
Specialized Honours	78

Appendix A

Explore Categories and Associated Rubrics

Creativity and Cultures	**LA&PS** Modern Languages*, CCY; CLST; CLTR; EN; GK; HUMA; LA; PHIL; RLST **AMPD:** ARTH; FILM; MUSI; THEA; VISA **GL:** DRCA, DRST; ENSL; FRAN; FSL; LIN
Social Worlds	**LA&PS** ANTH; CRIM; ECON; GLBL; GWST; HIST; HREQ; INDG; POLS; SOCI; SOSC; SXST **EUC:** ENVS **Health:** GH; HLST; IHST **Science:** STSO **GL:** CDNS; ILST
Scientific Foundations	**Science** BIOL; CHEM; MATH; NATS; PHYS **EUC:** GEOG **Health:** KINE; PSYC;
Inquiry In Action	**LA&PS:** CMDS; DEMS; DLLL; ESL; FINT; HRM; ITEC; LING; MODR; PPAS; PRWR; SOWK; SPRT; WRIT **APMD:** CRTE; CMA; DESN; PANF **LSE:** TECL; CSSD; EECS; ESSE **ED:** EDST; EDUC **Health:** IPH **GL:** BUEC; COMS; LIN; TRAN;

*Modern Languages: ARB, ASL, CH, FR, GER, GKM, HEB, HND, IT, JC, JP, KOR, PERS, POR, SP, SWAH

The Senate of York University

Meeting Synopsis

The 721st Meeting of Senate held on Thursday, 23 October 2025

Remarks

President

The President delivered an update on sector advocacy, noting efforts to secure increased provincial operating grants and to address federal-level issues such as talent development, visa processing, and research security. An update on enrolment, including the Markham campus, was shared. York's Forward Action Plan remains a core way to achieve financial sustainability in a way that advances the University's core priorities. The President provided an overview of the Efficiency and Accountability Fund (EAF) Review, noting Deloitte's external review and alignment of its recommendations with York's Forward Action Plan. A further update was provided regarding the School of Medicine, noting the University is progressing with temporary space in the Dahdaleh building on Keele campus pending Board of Governors approval of the capital renovation project.

Inquiries & Communications

A report from the Academic Colleague to the Council of Ontario Universities (COU) was received for information.

Approvals

Academic Standards, Curriculum and Pedagogy Committee (ASCP)

On the recommendation of the Senate Academic Standards, Curriculum and Pedagogy Committee, Senate approved:

- A dual-degree option between the Schulich School of Business and the Esade Business School in Barcelona, Spain, for the BBA degree program, effective Fall 2026.
- A dual-degree option between the Schulich School of Business and the Ecole Superieure des Sciences Economiques et Commerciales (ESSEC) Business School in France, for the BBA degree program, effective Fall 2026.
- Exemptions for the York University School of Medicine Doctor of Medicine Program from the following four university policy frameworks, effective upon Senate approval of the Doctor of Medicine (MD) degree program: Academic Consideration for Missed Course Work, Grade Reappraisal Principles, Grading

Scheme & Feedback, and Progression Requirements to Maintain Honours Standing.

Motion for Which Due Notice Has Been Given

Senate approved a motion to amend the Principles Governing a Presidential Search to include the: addition of language from the York Act as it relates to roles and responsibilities of Board and Senate pertaining to the appointment of the President; and, the addition of a process by which shortlisted candidates will be invited to deliver a presentation to a closed session of Senate where there is agreement among all of the short-listed candidates to do so.

As the authority for the Principles lies with both Senate and the Board of Governors, the revisions approved by Senate will proceed to the Board of Governors for approval.

Facilitated Discussion

Under the auspices of the *Academic Policy, Planning and Research Committee*, Senate engaged in a facilitated discussion of the Faculties of the Future Final Report issued by the President, including reflections or questions about the process moving forward for Faculties' consideration of planning options and possible models of reorganization offered in the report.

Committee Information Items

Executive Committee

Information items included the following:

- Committee approval of student members to serve on Senate committees, as nominated by the student senator caucus, for 2025-2026.
- Confirmation of the Committee's 2025-2026 annual priorities, which include the review of the *Senate Policy on Academic Implications of Disruptions or Cessations of University Business Due to Labour Disputes or Other Causes*, the review of the *Principles to Govern Presidential Search Committees,* and the review of the Senate Rules and the Senate membership.
- Receipt of the 2025-2026 annual priorities of the Academic Policy, Planning and Research Committee (APPRC) and the Academic Standards, Curriculum & Pedagogy Committee (ASCP).
- Receipt of recommendations from the *Honorary Degrees and Ceremonials Sub-Committee* to add individuals to the pool of prospective recipients of honorary degrees for a five-year period.
- Anticipated meeting of Senate on 11 December 2025 to discuss pending time-sensitive business. Final confirmation will be made in advance.
- An update on the Committee's discussion of a question about the recent naming announcement of the Hennick JD/MBA program and designations.

- The Committee's discussion on Senate's feedback on the Joint Board-Senate Working Group's review of the *Principles Governing a Presidential Search* (the *Principles*), including the Committee's decision, based on the feedback of Senate, not to proceed with the Working Group's recommended change to the Principles from a special majority to simple majority voting rule.

Academic Policy, Planning and Research Committee

Information items included the following:

- Confirmation of the Committee's 2025-2026 annual priorities.
- Planning for the preparation of the succeeding University Academic Plan and circulation to Senate of the 2020-2025 UAP Retrospective Report.
- An update on the development of the School of Medicine towards its launch in 2028, noting accreditation timelines, academic program planning, and temporary teaching space arrangements on the Keele campus for the initial cohort of the MD program.

Academic Standards, Curriculum and Pedagogy Committee

Information items included:

- Minor modification to degree requirements in a program housed in the Faculty of Health effective.
- Updates on the ASCP priorities, the implementation of the Academic Consideration for Missed Course Work Policy, ongoing work with the Office of the University Registrar related to changes to administrative fees for deferred examinations, and plans to bring forward a Notice of Motion to Senate for two new proposed degree types: Master of Engineering (MEng) and Doctor of Medicine (MD).

Additional Information about this Meeting

Please refer to the full Senate agenda of **23 October 2025** for further details on the items reported.

The next regular meeting of Senate will be held at **2:30 pm on Thursday, 27 November 2025.**

FACULTY OF SCIENCE

Science Curriculum Committee

AGENDA

Date: Tuesday, October 21 2025

Time: 10:00 a.m.

Via Zoom

Members Present:
Professors Lisa Robertson (Chair), Robin Metcalfe (2nd chair), Michael Haslam, Nikita Blinov, Derek Jackson and Jesse Rogerson. Student representative, Rachel Ajadi. Tina Reddi, Secretary.

Members regrets: Associate Dean of Students, Professor Michael Scheid, Professors Paula Wilson and Jade Atallah

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1.1 MINUTES OF THE MEETING:

1.1.1 September 23 2025 Meeting

1.2 BIOLOGY:

1.2.1 Change in pre-requisite and Calendar description: SC/BIOL 4220 4.0 – Histology.

Note: this proposal came to the September 23, 2025 meeting, and was sent back to Biology for minor changes to edit proposal to add changes to pre-requisites.

1.3 NATURAL SCIENCE:

1.3.1 Change in Title and in Calendar Description: SC/NATS 1850 6.0 – Science and Pseudoscience. Change in title to **Science Beyond the Ordinary.**

Note: Robin emailed me after the meeting and asked to pull this proposal, because she wants to change the title. Robin got approval from AD Mike to pull from agenda and Robin will resubmit revised copy with change in title.

1.4 SCIENCE, TECHNOLOGY and SOCIETY

1.4.1 Detailed Minor Modification – Change in high school requirements Grade 12 Biology, Physics, Chemistry or equivalent: Science, Technology and Society – BA Degree (Honours; Honours Double Major; Honours Major/Minor; Hons Double Major Interdisciplinary / Linked).

Changes to Existing Course

Faculty:

Department: Biology

Date of Submission: Oct 1, 2025

Course Number: BIOL 4220

Effective Session: Fall 2026

Course Title: Histology

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

Change From:	To:
Structure and function of tissues in vertebrates, with special emphasis on human histology. The laboratory deals with basic histological and histochemical techniques, such as tissue sectioning and staining, and localization of enzymes. Three lecture hours, three laboratory hours. One term. Four credits. Prerequisites: SC/BIOL 2070 3.0, SC/BIOL 3070 4.0.	This course allows students to examine the microscopic organization of the cells, tissues, and organs of the mammalian body. The relationship between structure and function is a central theme of the course. Three lecture hours and three laboratory hours per week. One term. Four credits. Prerequisites: SC/BIOL 2070 3.0 and one of: BIOL 3060 4.0, SC/BIOL 3070 4.0, or SC/BIOL 3350 4.0.

Rationale:

The laboratory does not currently involve histological processing. The change in course description allows for processing to be added, if feasible, in the future. The course also takes on more of a comparative approach across mammals rather than focusing on human histology.

Change in pre-requisites to the following: SC/BIOL 2070 3.0 *Research Methods in Cell and Molecular Biology* and one of SC/BIOL 3060 4.0 *Animal Physiology I*, SC/BIOL 3070 4.0 *Animal Physiology II* OR SC/BIOL 3350 4.0 *Comparative Chordate Anatomy*, better aligns with previous knowledge required and increases access to this course to upper year students. This improves the ability for students to complete their degree within prescribed timeframes.

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: Science

Department:	Science, Technology and Society	**Date of Submission:**	September 4, 2025
Course Number:	NATS 1850 6.0	**Effective Session:**	2026-2027
Course Title:	Science and Pseudoscience		

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)	[ ]	in course format/mode of delivery *
[x]	in Calendar description (max. 40 words or 200 characters)	[ ]	retire/expire course
[ ]	other (please specify):	[ ]	

Change From:	**To:**
Science and Pseudoscience This course develops critical thinking skills and an understanding of the process of scientific discovery in order to examine controversial claims and evidence. Topics may include extrasensory perception, UFO/UAP phenomena, post-death survival, cryptozoology as well as the claims of denialist communities.	Science Beyond the Ordinary This course develops critical thinking skills and an understanding of the process of scientific discovery in order to examine ~~controversial~~ extraordinary claims and evidence. Topics may include extrasensory perception, UFO/UAP phenomena, post-death survival, cryptozoology ~~as well as the claims of denialist communities~~, and alternative health information and practices.

Rationale:

Students in past classes of NATS 1850 have had difficulty with the concept of “pseudoscience,” even after several lectures in which it is discussed and in which examples are given. Particularly if they are in first year, students typically continue to equate science with scientists and factual information, and pseudoscience with controversial claims and topics. One aim of NATS courses is to contextualize science, which may involve an acknowledgement of the dynamic nature of scientific knowledge and the process of discovery. “The extraordinary” of the new title suggests that subject matter and practices that currently lie outside of mainstream “ordinary” science, could still potentially be the subject of responsible scientific inquiry.

In addition, the demarcation of science and pseudoscience is a topic of philosophy of science, and therefore is likely to be unfamiliar to most students taking NATS courses for general education. It is suspected that a change in title would attract more students to the course.

In the calendar description, the term “controversial” is replaced by “extraordinary” to mirror the title of the course. In addition, whether something is “controversial” may be associated with the community evaluating the claim. What is controversial to certain social groups may not be controversial in science. In this course multiple perspectives on extraordinary claims are examined.

The words “denialist communities” are removed, as they could cause preconceived judgments about unorthodox views that may lead to uncritical debunking, rather than to critical analysis of the nature of evidence. Instead, the specific example of “alternative health information and practices” is added, which could cover both topics like anti-vaccination movements, as well as modalities in alternative and complementary medicine, both of which are discussed in the course.

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.

York University

Detailed Minor Modifications to Existing Programs

TEMPLATE

Modifications to Existing Programs fall under Section 5 of the York University Quality Assurance Procedures (YUQAP).

Full YUQAP can be found here: https://www.yorku.ca/unit/yuqap/

DETAILED MINOR MODIFICATIONS USUALLY INCLUDE ONE OR MORE OF THE FOLLOWING FEATURES:

- Addition of part-time/full-time program options, or a change from option to the other, where no significant change in resources is required
- Addition of an optional, standalone work-integrated learning element, e.g., an internship course or similar non-credit element.
- Substantive changes in admission requirements
- Substantive changes in progression requirements
- Substantial changes to required/core courses for a major/graduate degree that do not rise to the level of a major modification
- Substantial changes to an existing program option that was previously established through a major modification (i.e., substantial change to a minor, option, certificate, work-integrated learning option, or graduate specialization.)

OTHER STANDARD MINOR MODIFICATIONS CAN BE UNDERTAKEN THROUGH YOUR FACULTY. THESE USUALLY INCLUDE ONE OR MORE OF THE FOLLOWING FEATURES:

- Calendar copy corrections
- Revisions and/or updates to Program Learning Outcomes (PLOs) that do not change the substance of the PLOs
- Changes program name or nomenclature where there are no changes to PLOs
- Course changes – revisions, additions, deletions, repositioning, resequencing, etc. – where there are no changes to PLOs
- Changes in program requirements or sequencing where less than 1/3 of the program courses are affected
- Minor changes (changes to less than 1/3 of the program) to an existing minor, specialization, option, certificate, or WIL option (i.e., minor change to anything established through a major modification)
- Closure of any degree option, e.g. honours specialization

See the YUQAP website for further details, resources, and templates.

Detailed Minor Modification Proposal

Faculty: Science

Department: Science, Technology & Society

Program: BA

Degree Designation: BA (Honours; Honours Double Major; Hons Maj/Minor; Hons Double Major Interdisciplinary / Linked). (see PDF pages 11, 12, 13 of printout of website, flagged with red 'drawn' lines in PDF).

Type of Modification: Minor

Location *(current campus and, if applicable, proposed)*: Keele

Effective Date: Sept 2026

Approval Date at Faculty Council: TBD

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1. Describe the proposed modifications to the program.

Change high school requirements grade 12 biology, physics, chemistry to equivalent first year university courses, enabling students to enrol in STS as a BA. Therefore:

BEFORE (taken during high school; requirement

~~SBI4U (Grade 12 Biology) or SCH4U (Chemistry) or SPH4U (Physics)~~	DROPPED

Curriculum committee: we will minor modify our program in a second form to require Grade 12 HS equivalent requirements during the BA (BIO 1500 3.0 or CHEM 1500 4.0 or PHYS 1510 3.0), waiving this requirement if they have one such course.

2. Include as an appendix a side-by-side comparison of the existing and proposed program requirements as they will appear in the Undergraduate or Graduate Academic Calendar. Please indicate deletions as strikethrough text and additions as underlined text in a contrasting colour.

See appendix

3.1 List the current and/or updated Program Learning Outcomes for the proposed modified program.[1]

See attached

3.2 Provide a rationale for the proposed changes as articulated through the Program Learning Outcomes.

We have numerous students who take one of our courses, often in second year, then want to switch majors or take a minor in ST&S (as a BA).* Since they often didn't take one of the 3 required high school courses, this is impossible.

By changing this requirement, this allows them to formally join us as a major or minor.

By still requiring one of the PHAS / CHEM / BIO introductory courses (BIO 1500 3.0 or CHEM 1500 4.0 or PHYS 1510 3.0), they attain some minimum technical background of competence as stated in the PLOs below.

3.3 How will the proposed modification support the achievement of Program Learning Outcomes?

This change will still ensure that our BA students possess a basic competence in discussing the "relationship between science, technology, society and culture" and "factors in the production, interpretation and distribution of scientific and technical knowledge."

More fundamentally if our program is closed down for not having enough majors, then our PLOs - no matter how well conceived – will be irrelevant.

4. Describe how students currently enrolled in the program will be accommodated.

This would not affect current students. This does not affect students in the BSc.

5. Describe any resource implications and how they are being addressed (e.g., through a reallocation of existing resources). If new/additional resources are required, provide a statement from the relevant Dean(s)/Principal confirming resources will be in place to implement the changes.

This will help convert enthusiastic students into majors and minors (BA).

6. If relevant, summarize the consultation undertaken with relevant academic units, including commentary on the impact of the proposed changes on other programs.

[1] Ideally, a program would have 8-12 Program Learning Outcomes (PLOs) that reflect the program and demonstrate how the program meets Ontario's Degree Level Expectations. Support for visioning, defining, and mapping your PLOs can be found in the Office of the Vice Provost Academic.

Provide individual statements from the relevant program(s) confirming consultation and their support.

Contacted chairs of PHAS, CHEM, BIO – all said this would have a minor effect on their courses. See 3 accompanying letters (PDFs).

7. For optional work-integrated learning elements (e.g., an optional internship course), please describe the consultation to ensure these elements are in line with best practice for experiential education and York's established other practices in this area. The Office of the Vice Provost, Teaching and Learning can provide further guidance.

n/a

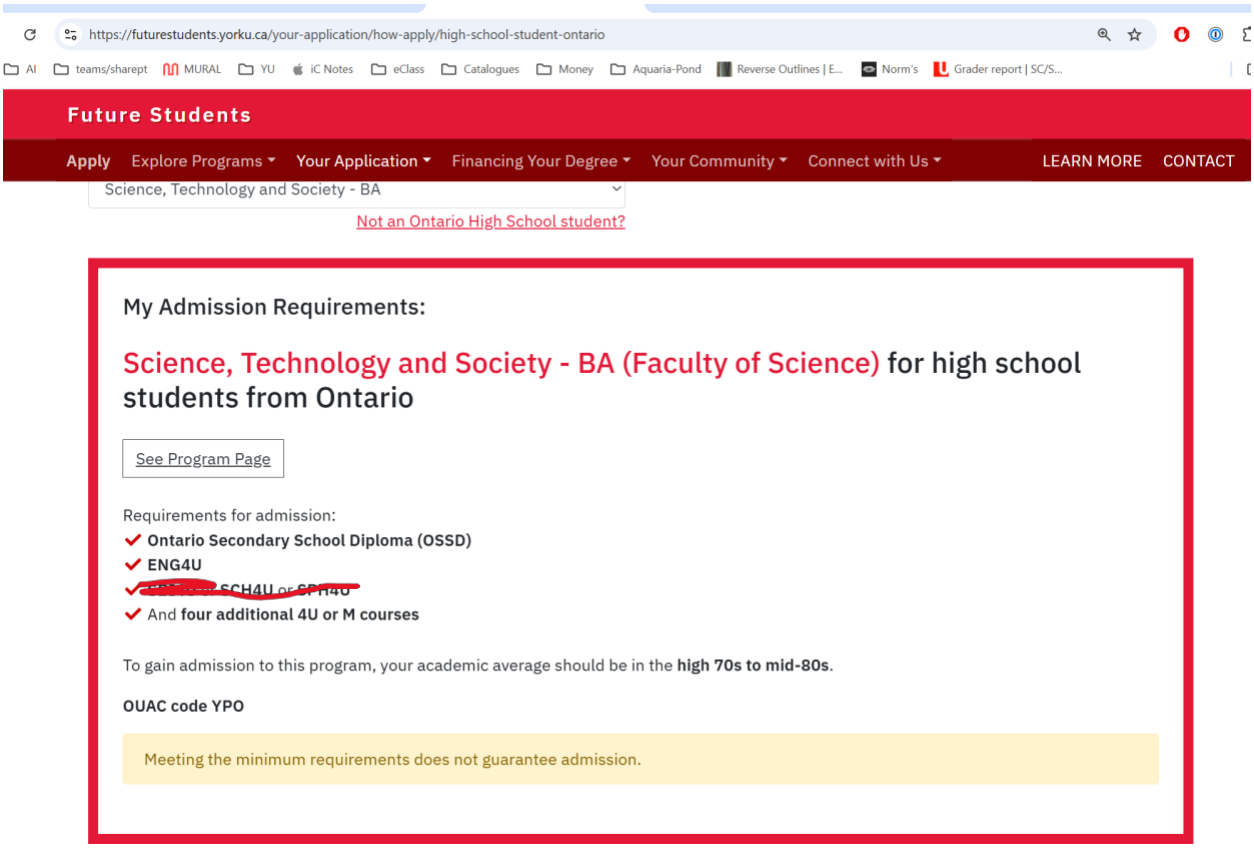
APPENDICES

Appendix: Side-by-Side Academic Calendar Copy Comparison

Ensure that deletions are indicated with strikethrough text and additions are made in a contrasting colour.

Change of entry requirements, Bachelor of Arts (BA) in ST&S

BEFORE - screenshot



Before	After
My Admission Requirements: Science, Technology and Society - BA (Faculty of Science) for high school students from Ontario Requirements for admission: Ontario Secondary School Diploma (OSSD) ENG4U ~~SBI4U or SCH4U or SPH4U~~ And four additional 4U or M courses To gain admission to this program, your academic average should be in the high 70s to mid-80s.	My Admission Requirements: Science, Technology and Society - BA (Faculty of Science) for high school students from Ontario Requirements for admission: Ontario Secondary School Diploma (OSSD) ENG4U And four additional 4U or M courses To gain admission to this program, your academic average should be in the high 70s to mid-80s.

APPENDIX: ST&S LEARNING OUTCOMES

Table 1: Ontario Undergraduate Degree Level Expectations (UUDLEs) Mapped to Science, Technology & Society Program Learning Outcomes

Undergraduate Degree Level Expectations	**STS Minor**	**STS Major**

1. Depth and breadth of knowledge	a) A general knowledge and understanding of many key concepts, methodologies, theoretical approaches and assumptions in a discipline. b) A broad understanding of some of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines. c) An ability to gather, review, evaluate and interpret information relevant to one or more of the major fields in a discipline. d) Some detailed knowledge in an area of the discipline. e) Critical thinking and analytical skills inside and outside the discipline. f) The ability to apply learning from one or more areas outside the discipline.	1. Differentiate STS approaches to the relationship between science, technology, society and culture, and apply them in case studies. 2. Identify socio-cultural, economic, political and historical factors in the production, interpretation and distribution of scientific and technical knowledge. 9. Explore methods in STS research with human subjects, including laboratory observation, online ethnography, interviewing, and participant-observer research.*	1. Differentiate foundational STS approaches to the relationship between science, technology, society and culture, and apply them in a broad range of case studies. 2. Analyze the socio-cultural, economic, political and historical factors in the production, interpretation and distribution of scientific and technical knowledge.
2. Knowledge of Methodologies	an understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to: • Evaluate the appropriateness	1. Differentiate STS approaches to the relationship between science, technology, society and culture, and apply them in case studies. 3. Recognize the impacts of science and technology	1. Differentiate foundational STS approaches to the relationship between science, technology, society and culture, and apply them in a broad range of case studies. 3. Appraise the positive and negative impacts of science

	of different approaches to solving problems using well established ideas and techniques; and • Devise and sustain arguments or solve problems using these methods.	on individuals, communities and institutions, of past and present societies, including issues of equity, diversity and inclusivity.	and technology on individuals, communities and institutions, of past and present societies, including issues of equity, diversity and inclusivity.
3. Application of Knowledge	a) The ability to review, present, and interpret quantitative and qualitative information to: 1. Develop lines of arguement. 2. Make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study; and	4.Apply STS concepts and practices to understand and evaluate proposed solutions for issues ranging from local to global, such as digital surveillance and information manipulation, environmental degradation and climate change, technological transformations related to AI and robotics, ethics and genomics, pharmaceutical governance, and sustainable food production.	4. Apply advanced STS concepts and practices to understand and evaluate proposed solutions for issues ranging from local to global, such as digital surveillance and information manipulation, environmental degradation and climate change, technological transformations related to AI and robotics, ethics and genomics, pharmaceutical governance, and sustainable food production.
	b) The ability to use a basic range of established techniques to: 1. Analyse information; 2. Evaluate the appropriateness of different approaches to solving problems related to their area(s) of study;	5.Analyze information emanating from new and traditional sources (such as online and social media, as well as library and archival materials) through STS theories and methods. 9. Explore methods in STS research with human subjects, including laboratory observation, online ethnography, interviewing, and participant-observer research.*	5.Analyze information emanating from new and traditional sources (such as online and social media, as well as library and archival materials) through STS theories and methods. 9. Utilize methods in STS research with human subjects, including laboratory observation, online ethnography, interviewing, and participant-observer research.*

	3. Propose solutions; and		
	c) The ability to make use of scholarly reviews and primary sources.	5. Analyze information emanating from new and traditional sources (such as online and social media, as well as library and archival materials) through STS theories and methods.	5. Analyze information emanating from new and traditional sources (such as online and social media, as well as library and archival materials) through STS theories and methods.
4. Communication Skills	… the ability to communicate accurately and reliably, orally and in writing to a range of audiences.	6. Effectively communicate program concepts through one or more formats, which may include: a short well-argued research paper, a brief oral presentation, in-class discussion, an online or in-class creative project, a community-based activity, a collaborative group project and/or an original research project.	6. Effectively communicate program concepts through one or more formats, which may include: a short well-argued research paper, a brief oral presentation, in-class discussion, an online or in-class creative project, a community-based activity, a collaborative group project and/or an original research project.*
5. Awareness of Limits of Knowledge	… an understanding of the limits to their own knowledge and how this might influence their analyses and interpretations	8. Recognize the scope, the strengths, and the limits of current and past approaches in STS, and justify claims accordingly.	8. Recognize the scope, the strengths and the limits of current and past approaches in STS and justify claims accordingly.
6. Autonomy and Professional Capacity	a) Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring: 1. The exercise of personal responsibility and decision-making;	7. Enhance career prospects in natural science, social science, engineering, media, arts, law, policy or health by applying STS concepts, research practices, and communication skills in both lower and upper level courses.	7. Further enhance career prospects in STS-related fields by applying STS concepts, research practices, and communication skills in both lower and upper level courses.

	2. Working effectively with others;		
	b) The ability to identify and address their own learning needs in changing circumstances and to select an appropriate program of further study; and	10. Assess personal STS learning and achievements, and take action on STS-related interests and goals, by completing introductory and capstone course-based reflection assignments.*	10. Assess personal STS learning and achievements, and take action on STS-related interests and goals, by completing introductory and capstone course-based reflection assignments.*
	c) Behaviour consistent with academic integrity and social responsibility.	10. Assess personal STS learning and achievements, and take action on STS-related interests and goals, by completing introductory and capstone course-based reflection assignments.*	10. Assess personal STS learning and achievements, and take action on STS-related interests and goals, by completing introductory and capstone course-based reflection assignments.*

Appendix: Consultation and Support Letters

See accompanying PDFs from PHAS, CHEM, BIO Chairs

Program: BA in Science, Technology & Society
Degree Program: Please Select Applicable Degree Program
Specialized Honours Honours Ordinary (90-credit) Double Major Double Major Interdisciplinary Major/Minor Minor
Other:
Effective Date: Fall 2026

Please note that only those fields applicable to the relevant program need to be completed.

Current Calendar Copy (~~Strikethrough~~ items to be removed)	New Calendar Copy (Underline items to be added in revisions to existing programs)
Admission Requirements **Future Student Website ONLY** Ontario Secondary School Diploma (OSSD) ENG4U ~~SBI4U Or SCH4U or SPH4U~~ And four additional 4U or M courses To gain admission to this program, your academic average should be in the high 70s to mid-80s.	**Admission Requirements** **Future Student website ONLY** Ontario Secondary School Diploma (OSSD) ENG4U And four additional 4U or M courses To gain admission to this program, your academic average should be in the high 70s to mid-80s.

Please use the checklist to ensure that your submission has includes the following items:

- ☐ Relevant areas of Calendar Copy (Or complete if new proposal)
- ☐ Courses – Please Ensure the following:
  - All courses have an '**Active Status**'
  - Written Faculty Associations for each course
  - Correct Credit Value
  - Correct Course Rubric
  - Correct Course Number
  - Cross-listings (If applicable)
  - Integrations (only if application)
  - Confirmed updated information on courses / listings offered by another Faculty
- ☐ Effective Date
- ☐ All Degree Designation (s) / Credential (s) Changes clearly indicated for changes / new proposals
  - Please use a separate template for each degree designation for clarity purposes
- ☐ You have referenced the Current Published Academic Calendar
- ☐ Grand Total Credit Count Reflection (Equals the approved amount of credits required for graduation, for e.g., Grand Total Credit Count = 90 credits, etc.)
- ☐ Category Credit Values Requirements Clearly Outlined
- ☐ Supporting Documentation

<u>Types of Requirements:</u>

1) Admission Requirements:

Future Student: This is a generic text which will not be edited.

Current Students: This is the type for requirement that a currently enrolled student will need to get admitted into the program.

2) Continuing Requirements: This is the type of requirement that a student is required to stay enrolled in the program.
3) Graduation Requirements: This is the type of requirements that a student needs to complete to achieve that degree program.
4) General Education: The student is required to fulfill a specific number of courses from general education categories.
5) Major Requirements: A structured set of courses specifically designated for inclusion in the undergraduate program requirements, either mandatory or among a list of options for students to choose. May include or be in addition to core courses.
   a. Core Courses: Mandatory specified courses within an undergraduate program that provide a solid theoretical foundation and / or convey a common body of disciplinary knowledge and skills.
6) Streams – A structured set of courses with a particular focus within an Honours undergraduate degree program, to provide additional depth within the Major. Appears on the academic transcript but does not appear on the degree parchment.
7) Science Breath – Specific to the Faculty of Science and Faculty of Health
8) Practical – Practical requirements that a student needs to complete.
9) Outside the Major – This is the type of requirement that a student needs to complete with courses listed outside of the major program.

10) Elective – Also referred to as Free electives. Course(s) outside the prescribed set of program requirements, chosen by students and which count towards the total number of credits required for the degree
11) Bilingual – This is the type of language requirement that a student needs to fulfill within the above-mentioned credits (General Education, Major Requirements, etc).
12) Upper-level Requirement – This is the type of requirement that clearly states from the above-mentioned requirements, how many need to be from the 3000 and/ or 4000 level.

James Elwick

From: Biology Chair
Sent: March 28, 2025 12:11 PM
To: stschair; Chair of Chemistry; PHAS Chair
Cc: Faculty of Science Associate Dean Students; Susy Ribeiro
Subject: Re: Minor modification proposal - resource implications

Hi Jamie,

BIOL1500 has room. The course is offered in the Fall and Winter terms and there is typically plenty of spots available.

Robert

From: stschair <stschair@yorku.ca>
Date: Friday, March 28, 2025 at 12:07 PM
To: Biology Chair <biochair@yorku.ca>, Chair of Chemistry <chrchem@yorku.ca>, PHAS Chair <chphas@yorku.ca>
Cc: Faculty of Science Associate Dean Students <sciadstu@yorku.ca>, Susy Ribeiro <sribeiro@yorku.ca>
Subject: Minor modification proposal - resource implications

Hi everyone,

Happy Friday. I have a 'resource implications' query for you regarding your Grade 12 equivalent courses - BIO 1500 3.0 or CHEM 1500 4.0 or PHYS 1510 3.0. **In short, if we send a few extra students a year (at most) into these courses do you have the room for them?**

___
Background:
I'm working up a minor modification proposal for our ST&S BA high school entry requirements. It looks like this:

BEFORE (high school entry)	AFTER (take this during the BA)
~~SBI4U (Grade 12 Biology) or SCH4U (Chemistry) or SPH4U (Physics)~~	BIO 1500 3.0 or CHEM 1500 4.0 or PHYS 1510 3.0

The issue, which Mike and Susy pointed out:

1. we have numerous students who take one of our courses, often in second year, then want to switch majors or take a minor in ST&S (as a BA).*
2. Since they often didn't take one of the 3 required high school courses, this is impossible.
3. By changing this requirement, this allows them to formally join us as a major or minor.
4. By still requiring one of your courses, they attain some minimum technical background of competence.

Finally, this aligns us more directly with 'competitor' BA programs such as KIN.

Please let me know.

Thanks, Jamie

* This change will **only** affect the BA and not the BSc – our BSc still requires not only one of the 3 grade 12 science courses but also grade 12 math/advanced functions, then additional science first year classes such as CHEM 1000/1001 or PHYS 1011.

Dr. James Elwick
Chair, Science, Technology & Society Department
218A Norman Bethune College, York University
4700 Keele St., Toronto, Canada M3J1P3
jelwick@yorku.ca; https://www.yorku.ca/professor/jelwick/
Making a Grade is now available at https://utorontopress.com/9781487508937/making-a-grade/
Zoom Room: https://yorku.zoom.us/j/7283143887

James Elwick

From: Chair of Chemistry
Sent: March 28, 2025 12:50 PM
To: stschair; Biology Chair; Chair of Chemistry; PHAS Chair
Cc: Faculty of Science Associate Dean Students; Susy Ribeiro
Subject: RE: Minor modification proposal - resource implications

Hi Jamie:

There isn't an issue on our end for admitting a small number of extra students to CHEM1500 in Fall.

JvW

Dr. Jennifer van Wijngaarden (she/her)
Chair of Chemistry
Professor

Department of Chemistry | York University
4700 Keele St, Toronto, ON, M3J 1P3, Canada

416-736-2100 ext 77718
Office: 126 Chemistry
Lab: 204 Petrie
http://yorku.ca/vanwijng/

_____

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many First Nation, Inuit and Métis communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject of the Dish with One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region.

From: stschair <stschair@yorku.ca>
Sent: March 28, 2025 12:08 PM
To: Biology Chair <biochair@yorku.ca>; Chair of Chemistry <chrchem@yorku.ca>; PHAS Chair <chphas@yorku.ca>
Cc: Faculty of Science Associate Dean Students <sciadstu@yorku.ca>; Susy Ribeiro <sribeiro@yorku.ca>
Subject: Minor modification proposal - resource implications

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Please let me know.

Thanks, Jamie
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Chair, Science, Technology & Society Department
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Zoom Room: https://yorku.zoom.us/j/7283143887

James Elwick

From: PHAS Chair
Sent: March 28, 2025 4:54 PM
To: stschair
Cc: Faculty of Science Associate Dean Students; Susy Ribeiro; Biology Chair; Chair of Chemistry
Subject: Re: Minor modification proposal - resource implications

Hi Jamie,

Same here. We typically offer PHYS 1510 twice per year and there seem to be way more seats than butts.

But I can't rule out that we will only be able to offer it once per year (Fall), going forward.

Tom

On 2025-03-28 12:10, Biology Chair wrote:

> Hi Jamie,
>
> BIOL1500 has room. The course is offered in the Fall and Winter terms and there is typically plenty of spots available.
>
> Robert
>
> ---
>
> **From:** stschair <stschair@yorku.ca>
> **Date:** Friday, March 28, 2025 at 12:07 PM
> **To:** Biology Chair <biochair@yorku.ca>, Chair of Chemistry <chrchem@yorku.ca>, PHAS Chair <chphas@yorku.ca>
> **Cc:** Faculty of Science Associate Dean Students <sciadstu@yorku.ca>, Susy Ribeiro <sribeiro@yorku.ca>
> **Subject:** Minor modification proposal - resource implications
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> Hi everyone,
>
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> Background:
> I'm working up a minor modification proposal for our ST&S BA high school entry requirements. It looks like this:
>
> | BEFORE (high school entry) | AFTER (take this during the BA) |
> |---|---|
> | ~~SBI4U (Grade 12 Biology) or SCH4U (Chemistry) or SPH4U (Physics)~~ | BIO 1500 3.0 or CHEM 1500 4.0 or PHYS 1510 3.0 |

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--
Dr. Tom Kirchner (he/him/his)
Professor and Chair, Department of Physics and Astronomy, York University
www.yorku.ca/science/physics

YORK
UNIVERSITÉ
UNIVERSITY

FACULTY OF SCIENCE

UNDERGRADUATE CURRICULUM COMMITTEE

Robin Metcalfe & Lisa Robertson, Co-Chairs

4700 KEELE ST
TORONTO ON
CANADA M3J 1P3
T 416 736-5021

rfinger@yorku.ca
rlisa@yorku.ca

November 11, 2025

Chloë Brushwood Rose, Vice-Provost Teaching & Learning
Kate McPherson, Professor, Faculty of Liberal Arts and Professional Studies and Interim Dean, LA&PS

Re: Request from Faculty of Science regarding the Proposal for Redesigning the Undergraduate Degree Framework

Dear Chloë and Kate,

The proposal for Redesigning the Undergraduate Degree Framework is very likely to pose significant curricular impacts to the Faculty of Science. As a result, the Faculty of Science Undergraduate Curriculum Committee respectfully requests a postponement in bringing the proposal to ASCP for a recommendation to Senate until March 2026. This will give our Faculty sufficient time to evaluate the proposal's impact to our Faculty with the guidance of our incoming Dean, who will join our Faculty in January 2026.

Sincerely,

Robin Metcalfe and Lisa Robertson
Co-Chairs, Undergraduate Curriculum Committee
Faculty of Science

cc. Derek Jackson
Jesse Rogerson
Michael Haslam
Ozzy Mermut
Paula Wilson
Jade Atallah

Graduate Curriculum Committee

October 2025

Item for Consent

1. Approval of Standard Minor Modification to the MSc and PhD program in Biology

Notes:

1. Calendar copy has been updated: https://www.yorku.ca/gradstudies/academiccalendar/2025-2026/biology/
2. This curriculum item was also sent to our FSc APPC committee, but was deemed not an item for the committee agenda since no additional resources are required

Change to Graduate Program/Graduate Diploma Academic Requirements Proposal Form

FACULTY of SCIENCE

The following information is required for all proposals involving a minor modification to graduate program/graduate diploma academic requirements. Provide evidence of consultation, where appropriate. To facilitate the review/approval process, please use the headings below (and omit the italicized explanations below each heading).

1. Graduate Program/Graduate Diploma: Biology

2. Effective Term/Calendar Year of Proposed Change(s): 2026 Fall

3. Proposed Change(s) and Rationale:

a. A description of the proposed modification(s) and rationale, including alignment with academic plans.

The Biology graduate program has implemented steps following consultation and feedback received from students and faculty on various committees as well as external reviewer guidance following our recent CPR:
(i) formalize first term committee meetings for our incoming MSc and PhD students, which have been used in practice since 2016;
(ii) offer mandatory Biology-centric TA training for all incoming MSc and PhD students, which has been offered the last two years;
(iii) introduce mandatory exit seminar for PhD candidates, which is separate from the final oral examination. PhD exit seminars have been piloted over the last several months (and is ongoing) with current senior PhD students delivering an exit seminar voluntarily.

FGS was consulted and agreed that this would constitute a minor modification.

b. An outline of the changes to requirements and the associated learning outcomes/objectives, including how the proposed requirements will support the achievement of graduate program/graduate diploma learning objectives.

All incoming MSc and PhD students now complete mandatory TA training to prepare them for their TA roles in Biology undergraduate courses. This training helps advance several professional and transferrable skills including leadership, interpersonal abilities, time management, adaptability, problem solving, teamwork, and perhaps most importantly, communication.

The program requirement for first term meetings has been in place for several years (since 2016) and encourages early discourse between incoming students and their supervisory committee. This meeting initiates discussions between the students and committee members and helps keep the student (and committee) on track with key milestones early in the program. Committee members provide formative feedback to the student by completing the progress evaluation form. Therefore, this revision to the academic calendar with respect to our program requirements simply documents ongoing expectations and practices in the Biology graduate program that have been in place for nearly a decade.

The new PhD Exit seminar serves as a mechanism to celebrate some of our brightest young scholars in our graduate program. Aside from the various technical skills that graduate students develop as they embark upon research-intensive studies either in the laboratory or the field, the exit seminar, like other activities involving oral presentations such as conference talks, helps students develop strong communication skills. This includes use of engaging language and clear articulation, advanced presentations skills such as appropriate body language and vocal expression to effectively connect with the audience, as well as organizational skills needed to plan, prepare and execute a flawless and captivating oral presentation. The exit seminar also highlights how students exhibit understanding of a broad range of literature in their particular area of expertise, while demonstrating an ability to critically evaluation the literature more generally. Importantly, while many of their presentation opportunities earlier in their training are delivered to peers in their particular research niche, the exit seminar provides an opportunity to communicate the student's cutting edge science to a larger academic audience – an important skill transferrable to various career paths.

c. An overview of the consultation undertaken with relevant academic units and an assessment of the impact of the modifications on other programs/graduate diplomas.

The changes have been reviewed and approved by the Biology graduate committee chaired by the GPD along with a majority of faculty members whose primary appointment is in Biology.

d. A summary of any resource implications and how they are being addressed.

The TA training is offered by Biology administrative team that may include (but not limited to) the Chair, UPD, AUPD and GPD as a one-day synchronous workshop and includes support by experienced senior graduate students. Incoming students then complete short asynchronous activities through eClass to earn their TA training completion certificate. There are currently no new resource implications as training is offered on same day as incoming student orientation (using existing resources to cover food and snacks for graduate student professional development). However, Biology is seeking guidance on how

students can be compensated for completion of this training since equivalent training offered by Teaching Commons is eligible for 5 hours of payment at the marker/grader rate, as outlined in the latest CUPE 3903 collective agreement.

All incoming MSc and PhD students have held first term meetings since 2016 so there are no resource implications for this change.

PhD Exit seminars are organized by GPD in consultation with the supervisor(s) of the PhD candidate. There are no resource implications.

e. A summary of how students currently enrolled in the graduate program/graduate diploma will be accommodated.

TA training is only required for incoming students while current senior students who haven't previously completed the training are welcome to attend.

All incoming Biology graduate students have held first term meetings since 2016 so there is no accommodation necessary for current students.

Both incoming and current PhD students will be required to fulfill the exit seminar requirement effective Fall, 2026.

4. Calendar Copy:

Existing Graduate Program/Graduate Diploma Information (Change From):	**Proposed Graduate Program/Graduate Diploma Information (Change To):**
The Graduate Program in Biology offers programs leading to the Master of Science degree (by research thesis) and the Doctor of Philosophy degree (by research dissertation). Details of each program are described herein. **Areas of Research** Research in the Biology graduate program is focused on several broad areas including cell and molecular biology; physiology; neuroscience; and ecology and evolution. This focus ensures that within each area there is a critical mass of interacting people and shared resources to produce a strong research environment. Within the research areas, faculty members work on a diversity of research problems, the range of which can best be seen by consulting the detailed descriptions on the Biology website. **MASTER OF SCIENCE PROGRAM**	The Graduate Program in Biology offers programs leading to the Master of Science degree (by research thesis) and the Doctor of Philosophy degree (by research dissertation). Details of each program are described herein. **Areas of Research** Research in the Biology graduate program is focused on several broad areas including cell and molecular biology; physiology; neuroscience; and ecology and evolution. This focus ensures that within each area there is a critical mass of interacting people and shared resources to produce a strong research environment. Within the research areas, faculty members work on a diversity of research problems, the range of which can best be seen by consulting the detailed descriptions on the Biology website. **MASTER OF SCIENCE PROGRAM**

ADMISSION REQUIREMENTS **At the master's level, students work closely with a supervisor and their research is supported by that supervisor. Thus, no student is accepted into the program unless a faculty member agrees to supervise that student.** Graduates with a four-year bachelor's degree in biological science or its equivalent, with at least a B+ average in the last two years of study, may be admitted as candidates for the Master of Science degree. Each candidate selects a faculty supervisor on the basis of their mutual research interests and a supervisory committee (usually consisting of the supervisor and one other faculty member with similar research interests) is appointed by the graduate program to supervise and monitor the student's progress. **Qualifying Year** Graduates lacking the necessary undergraduate preparation may qualify for admission as undergraduate special students in the Faculty of Science. These admissions are dealt with by the **undergraduate** Admissions Office. Students are advised to take the equivalent of at least three, and up to five full courses. Students are advised to consult with potential graduate supervisors in selecting the courses to be taken, and are advised to have at least a C average before attempting such a program. **Note**: Successful completion of a year as a Special Student does not guarantee admission to the graduate program. **MSc Degree by Research Thesis** Candidates for the MSc degree by research thesis must fulfil the following requirements: **1. Courses** a) ~~All entering students plan a research program with their supervisor at the start of their degree studies.~~ Progress in research is monitored by the supervisory committee through meetings with the student and by **a progress report** consisting of a written paper. Satisfactory progress in research results in credit for **Biology 6021 3.0/6022 3.0: MSc Research Evaluation** and a statement of the	ADMISSION REQUIREMENTS **At the master's level, students work closely with a supervisor and their research is supported by that supervisor. Thus, no student is accepted into the program unless a faculty member agrees to supervise that student.** Graduates with a four-year bachelor's degree in biological science or its equivalent, with at least a B+ average in the last two years of study, may be admitted as candidates for the Master of Science degree. Each candidate selects a faculty supervisor on the basis of their mutual research interests and a supervisory committee (usually consisting of the supervisor and one other faculty member with similar research interests) is appointed by the graduate program to supervise and monitor the student's progress. **Qualifying Year** Graduates lacking the necessary undergraduate preparation may qualify for admission as undergraduate special students in the Faculty of Science. These admissions are dealt with by the **undergraduate** Admissions Office. Students are advised to take the equivalent of at least three, and up to five full courses. Students are advised to consult with potential graduate supervisors in selecting the courses to be taken, and are advised to have at least a C average before attempting such a program. **Note**: Successful completion of a year as a Special Student does not guarantee admission to the graduate program. **MSc Degree by Research Thesis** Candidates for the MSc degree by research thesis must fulfil the following requirements: **1. Courses** a) All entering students develop a research proposal with their supervisor and hold a meeting with their committee by the end of the first term of their degree studies where the committee provides formative feedback through completion of a Research Progress Evaluation form. Progress in research is monitored by the supervisory committee through meetings with the student and

student's progress in the student's record. **In the event of failure to achieve satisfactory progress, the student will normally be required to withdraw from the program.**	by **a progress report** consisting of a written paper. Satisfactory progress in research results in credit for **Biology 6021 3.0/6022 3.0: MSc Research Evaluation** and a statement of the student's progress in the student's record. **In the event of failure to achieve satisfactory progress, the student will normally be required to withdraw from the program.**
b) In addition to **MSc Research Evaluation**, each MSc student must take a minimum of **six credits** from Biology graduate courses including one of **Biology 5038 1.5: Current Topics in Molecular and Cellular Biology**, **Biology 5086 1.5: Critical Skills in Ecology and Evolution**, or **Biology 5100 1.5: Critical Skills in Animal Physiology**. MSc students in the Graduate Diploma in Neuroscience may take **Biology 5146 3.0: Fundamentals in Neuroscience I** in lieu of **Biology 5038 1.5**, **Biology 5086 1.5** or **Biology 5100 1.5**.	b) In addition to **MSc Research Evaluation**, each MSc student must take a minimum of **six credits** from Biology graduate courses including one of **Biology 5038 1.5: Current Topics in Molecular and Cellular Biology**, **Biology 5086 1.5: Critical Skills in Ecology and Evolution**, or **Biology 5100 1.5: Critical Skills in Animal Physiology**. MSc students in the Graduate Diploma in Neuroscience may take **Biology 5146 3.0: Fundamentals in Neuroscience I** in lieu of **Biology 5038 1.5**, **Biology 5086 1.5** or **Biology 5100 1.5**.
c) Students may be required to take up to two full undergraduate courses (or equivalent) in biological science if this is necessary to strengthen the student's background.	c) Students may be required to take up to two full undergraduate courses (or equivalent) in biological science if this is necessary to strengthen the student's background.
	d) All incoming MSc students are required to complete mandatory TA training in their first term of study, which is offered by Biology in Fall term and includes material designed to prepare students for responsibilities and challenges associated with their TA roles.
2. Thesis and Oral Examination Candidates must conduct original research and report the results in appropriate thesis form. Acceptable thesis formats in the graduate program are monograph or manuscript-based. The research and thesis should demonstrate the candidate's independence, originality, and understanding of the area of investigation. While the thesis results may not be publishable as is, the research should be presented according to publication-quality standards in the field of study. After the formal submission of the thesis, an oral examination is held, normally centering on the thesis and matters related to it. The total length of the thesis does not normally exceed 100 pages, excluding appendices. Prior to submission to the graduate	**2. Thesis and Oral Examination** Candidates must conduct original research and report the results in appropriate thesis form. Acceptable thesis formats in the graduate program are monograph or manuscript-based. The research and thesis should demonstrate the candidate's independence, originality, and understanding of the area of investigation. While the thesis results may not be publishable as is, the research should be presented according to publication-quality standards in the field of study. After the formal submission of the thesis, an oral examination is held, normally centering on the thesis and matters related to it. The total length of the thesis does not normally exceed 100 pages, excluding appendices. Prior to submission to the graduate

Faculty, the thesis must be presented to, and approved by, a majority of the program members of the examining committee. PROGRAM ENTRY The MSc program can be completed on a full- or part-time basis. Entry is fall term. PROGRAM LENGTH Full-time candidates should normally complete all requirements for the MSc degree in biology within two years of full-time study. Subsequent years will be permitted only as a part-time student. If a student completes degree requirements earlier than 3 terms, they must register and pay fees for a minimum of the equivalent of 3 terms of full-time study. All requirements for a master's degree must be fulfilled within 12 terms (4 years) of registration as a full-time or part-time master's student in accordance with Faculty of Graduate Studies' registration policies. **DOCTOR OF PHILOSOPHY PROGRAM** ADMISSION REQUIREMENTS **At the PhD level, students work closely with a supervisor, and their research is supported by that supervisor. Thus, no student is accepted into the program unless a faculty member agrees to supervise that student.** Graduates from a recognized university with a master's degree or equivalent in biological sciences, with at least a B+ average, or with a medical degree, may be admitted as candidates (PhD I) in a program of study and research leading to the PhD degree. Each candidate selects a faculty supervisor on the basis of their mutual research interests and a supervisory committee (usually consisting of the supervisor and two other faculty members with similar research interests) is appointed by the graduate program to supervise and monitor the student's progress. Graduates with an honours bachelor's degree, or equivalent, in one of the biological sciences, who have at least a B+ standing at the undergraduate	Faculty, the thesis must be presented to, and approved by, a majority of the program members of the examining committee. PROGRAM ENTRY The MSc program can be completed on a full- or part-time basis. Entry is fall term. PROGRAM LENGTH Full-time candidates should normally complete all requirements for the MSc degree in biology within two years of full-time study. Subsequent years will be permitted only as a part-time student. If a student completes degree requirements earlier than 3 terms, they must register and pay fees for a minimum of the equivalent of 3 terms of full-time study. All requirements for a master's degree must be fulfilled within 12 terms (4 years) of registration as a full-time or part-time master's student in accordance with Faculty of Graduate Studies' registration policies. **DOCTOR OF PHILOSOPHY PROGRAM** ADMISSION REQUIREMENTS **At the PhD level, students work closely with a supervisor, and their research is supported by that supervisor. Thus, no student is accepted into the program unless a faculty member agrees to supervise that student.** Graduates from a recognized university with a master's degree or equivalent in biological sciences, with at least a B+ average, or with a medical degree, may be admitted as candidates (PhD I) in a program of study and research leading to the PhD degree. Each candidate selects a faculty supervisor on the basis of their mutual research interests and a supervisory committee (usually consisting of the supervisor and two other faculty members with similar research interests) is appointed by the graduate program to supervise and monitor the student's progress. Graduates with an honours bachelor's degree, or equivalent, in one of the biological sciences, who have at least a B+ standing at the undergraduate

level may be considered for admission to the PhD program. Normally, however, such graduates must first register as candidates for the MSc degree. MSc students may request advancement in status to candidates (PhD 1) for the PhD degree, without completing the requirements for the MSc degree. Their progress during the first year must be deemed excellent by their supervisory committee and the Graduate Program Director. Candidates wishing to make this change must pass the PhD preliminary examination within 20 months of registering for the MSc degree.	level may be considered for admission to the PhD program. Normally, however, such graduates must first register as candidates for the MSc degree. MSc students may request advancement in status to candidates (PhD 1) for the PhD degree, without completing the requirements for the MSc degree. Their progress during the first year must be deemed excellent by their supervisory committee and the Graduate Program Director. Candidates wishing to make this change must pass the PhD preliminary examination within 20 months of registering for the MSc degree.
DEGREE REQUIREMENTS	DEGREE REQUIREMENTS
All Candidates for the PhD degree program must fulfil the following requirements:	All Candidates for the PhD degree program must fulfil the following requirements:
1. Courses	**1. Courses**
a) ~~All entering students plan a research program with their supervisor at the start of their degree studies.~~ Progress in research is monitored by the supervisory committee through meetings with the student and by **a progress report** consisting of a written paper. Satisfactory progress in research results in credit for **Biology 7021 3.0/7022 3.0/7023 3.0/7024 3.0: PhD Research Evaluation** and a statement of the student's progress in the student's record. **In the event of failure to achieve satisfactory progress, the student will normally be required to withdraw from the program**.	a) All entering students develop a research proposal with their supervisor in the first two terms of their degree studies and hold a committee meeting in their first term of study where the committee provides formative feedback through completion of a Research Progress Evaluation form. Progress in research is monitored by the supervisory committee through meetings with the student and by **a progress report** consisting of a written paper. Satisfactory progress in research results in credit for **Biology 7021 3.0/7022 3.0/7023 3.0/7024 3.0: PhD Research Evaluation** and a statement of the student's progress in the student's record. **In the event of failure to achieve satisfactory progress, the student will normally be required to withdraw from the program**.
b) Students may be required to take a maximum of **six credits** of graduate courses (or equivalent) in biological sciences, if this is deemed necessary to strengthen the student's background. Students who transfer internally from the MSc to PhD program must have completed the 6 credit course requirements for the MSc.	b) Students may be required to take a maximum of **six credits** of graduate courses (or equivalent) in biological sciences, if this is deemed necessary to strengthen the student's background. Students who transfer internally from the MSc to PhD program must have completed the 6 credit course requirements for the MSc.
c) Students may be required to take a maximum of two full undergraduate courses (or equivalent) in	c) Students may be required to take a maximum of two full undergraduate courses (or equivalent) in

biological sciences, if this is necessary to strengthen the student's background.	biological sciences, if this is necessary to strengthen the student's background. d) All incoming PhD students are required to complete mandatory TA training in their first term of study, which is offered by Biology in Fall term and includes material designed to prepare students for responsibilities and challenges associated with their TA roles.
2. Preliminary Examination Candidates (PhD II, or MSc transferring to PhD without first completing the MSc) must satisfactorily pass a preliminary examination before advancing in the Ph.D. The objectives of this examination are to determine whether: a) the Candidate has adequate background and intellectual ability to pursue independent research in the field approved by the supervisory committee; b) the proposed research is suitable for a PhD research program; and, c) the candidate has demonstrated aptitude for conducting the proposed research by means of adequate progress and productivity. The two to three hour oral examination is based on the written research proposal, oral research presentation, and quality of responses to examiner questions. Candidates must submit a detailed research proposal organized in scientific paper format (introduction and literature review, methods, results-to-date, discussion and interpretation) and conclude with a statement of future research plans and a timetable for research completion. The introduction must include a comprehensive and critical literature review of the research topic. Evaluation of the preliminary examination is based on both the written and oral components of the exam.	**2. Preliminary Examination** Candidates (PhD II, or MSc transferring to PhD without first completing the MSc) must satisfactorily pass a preliminary examination before advancing in the Ph.D. The objectives of this examination are to determine whether: a) the Candidate has adequate background and intellectual ability to pursue independent research in the field approved by the supervisory committee; b) the proposed research is suitable for a PhD research program; and, c) the candidate has demonstrated aptitude for conducting the proposed research by means of adequate progress and productivity. The two to three hour oral examination is based on the written research proposal, oral research presentation, and quality of responses to examiner questions. Candidates must submit a detailed research proposal organized in scientific paper format (introduction and literature review, methods, results-to-date, discussion and interpretation) and conclude with a statement of future research plans and a timetable for research completion. The introduction must include a comprehensive and critical literature review of the research topic. Evaluation of the preliminary examination is based on both the written and oral components of the exam. **3. PhD Exit Seminar** PhD candidates nearing the end of their program present a thorough overview of their doctoral research, including relevant background, major results and overall conclusions and interpretation. The PhD exit seminar is expected to be appropriate for an interdisciplinary audience in Biology and is normally scheduled several weeks

	prior to the final oral examination (flexibility in scheduling can be provided, if needed).
~~3. Dissertation and Oral Examination~~ Candidates must prepare and submit a suitable dissertation based on original research carried out under the supervision of a supervisory committee. The research should demonstrate the candidate's independence, originality, and understanding of the area of investigation at an advanced level. Acceptable dissertation formats in the graduate program are monograph or manuscript-based. Some, or all, of the dissertation is expected to be sufficiently meritorious to be published in a peer-reviewed scientific journal. The dissertation research is not required to be submitted for publication, or published, prior to the oral examination. After the formal submission of the dissertation, an oral examination is held, normally centering on the dissertation and matters related to it. Prior to submission to the graduate Faculty, the dissertation must be presented to, and approved by, a majority of the program members of the examining committee. PROGRAM ENTRY The PhD program can be completed on a full- or part-time basis. Entry is fall term. PROGRAM LENGTH Candidates entering with an MSc degree are expected to complete their PhD degree requirements within five years (fifteen terms). Doctor of Philosophy students must register and pay fees for a minimum of the equivalent of six terms of full-time registration. All requirements for a doctoral degree must be fulfilled within 18 terms (6 years) of registration as a full-time or part-time doctoral student in accordance with Faculty of Graduate Studies' registration policies.	**4. Dissertation and Oral Examination** Candidates must prepare and submit a suitable dissertation based on original research carried out under the supervision of a supervisory committee. The research should demonstrate the candidate's independence, originality, and understanding of the area of investigation at an advanced level. Acceptable dissertation formats in the graduate program are monograph or manuscript-based. Some, or all, of the dissertation is expected to be sufficiently meritorious to be published in a peer-reviewed scientific journal. The dissertation research is not required to be submitted for publication, or published, prior to the oral examination. After the formal submission of the dissertation, an oral examination is held, normally centering on the dissertation and matters related to it. Prior to submission to the graduate Faculty, the dissertation must be presented to, and approved by, a majority of the program members of the examining committee. PROGRAM ENTRY The PhD program can be completed on a full- or part-time basis. Entry is fall term. PROGRAM LENGTH Candidates entering with an MSc degree are expected to complete their PhD degree requirements within five years (fifteen terms). Doctor of Philosophy students must register and pay fees for a minimum of the equivalent of six terms of full-time registration. All requirements for a doctoral degree must be fulfilled within 18 terms (6 years) of registration as a full-time or part-time doctoral student in accordance with Faculty of Graduate Studies' registration policies.