

**FACULTY OF ARTS AND  
SCIENCE FACULTY BOARD**

A meeting of Faculty Board will be held on **Friday, March 13, 2020 at  
3:30 p.m. in School of Kinesiology and Health Studies KHS 101**

**AGENDA**

**1. Adoption of the Agenda**

**2. Approval of the Minutes**

The minutes of February 28, 2020 have been posted.

**3. Business Arising from the Minutes**

**4. Arts and Science Undergraduate Society Report**

**5. Reports**

1. Dean's Report
2. Associate Deans' Report

**6. Question Period**

**7. REVISED - Bachelor of Science (Life Science SSP, MAJ, GEN, MIN and Biochemistry SSP, MAJ, GEN, MIN) – Undergraduate Program – Major Modification Proposal – Appendix A – for approval**

J. Atkinson will move “that the Revised Bachelor of Science (Life Science SSP, MAJ, GEN, MIN and Biochemistry SSP, MAJ, GEN, MIN) – Undergraduate Program – Major Modification Proposal be approved.”

**8. Other Business**

J. Mennell, Secretary  
Faculty Board

J. Rose, Chair  
Faculty Board

**UNDERGRADUATE PROGRAM - MAJOR MODIFICATION PROPOSAL  
AND  
MINOR MODIFICATIONS REQUIRING SENATE APPROVAL**

**Expedited Approval Submission Form**

This template is to be used when seeking approval for a major modification of an existing undergraduate program or a minor modification requiring Senate approval. Modifications must receive the approval of the Faculty Committee/Board before being submitted to the provost's office. The provost's office will send the submission to the secretary of the Senate Committee on Academic Development (SCAD), which will then make their recommendations to Senate. Academic units are strongly advised to contact the appropriate academic dean in their faculty with any questions that arise during this proposal development. Refer also to the [QUQAP website](#) for information.

**NOTE: the textboxes in this template will expand as needed.**

**Part A – General Summary**

Name of Existing Program:	Bachelor of Science (Life Sciences SSP, MAJ, GEN, MIN and Biochemistry SSP, MAJ, GEN, MIN)
Academic Unit(s):	Faculty of Arts and Science
Proposed Implementation Date:	First cohort to be admitted September 2021

Contact Information (1)		Contact Information (2)	
Name:	Louise Winn	Name:	Jenn Stephenson
Title:	Associate Dean, Life Sciences and Biochemistry	Title:	Associate Dean (Academic), Faculty of Arts and Science
Unit:	Faculty of Arts and Science	Unit:	Faculty of Arts and Science
E-mail:	winnl@queensu.ca	E-mail:	jenn.stephenson@queensu.ca

Nature of Modification:	Change to program requirements, specifically the admission requirements
-------------------------	---

## Major Modifications

- Change in a degree designation without a substantial change in program requirements or learning outcomes (e.g. BSc to BNSc)\*
- Significant changes to program requirements from those existing at the time of the previous cyclical review (e.g. **admission** or graduation requirements)
- Significant changes to the program structure (e.g. major changes to courses comprising a significant proportion of the program, typically 35% or less)[Consult with Vice-Provost (Teaching and Learning)]
- Introduction or deletion of a work experience or co-op option, internship or practicum
- Significant changes to the faculty delivering the program
- Significant changes to the existing mode(s) of delivery (e.g. different campus, on-line, blended learning, inter-institutional collaborations, etc.)\*\*
- Merger of two or more programs
- Introduction of a combined or concurrent program
- Introduction of a dual credential program
- Changes to program content (other than those listed above) that significantly affect the learning outcomes, but do not meet the threshold for a new program

\*approval from University Registrar required (see Part C)

\*\*approval from Associate Vice-Principal (Planning and Budgeting) required (see Part C)

<b>Major Modifications: Description of Existing Program, Nature of the Major Modification, and Rationale for Proposed Change</b>
--

<i>Briefly summarize (suggested 1-page maximum) the existing program to be modified, the nature of the proposed major modification, and the rationale for the modification. Comment on the impact it will have on the structure, Degree Level Expectations, and learning outcomes of the existing program(s) as appropriate. Explain (as appropriate) how the relevant stakeholders (e.g. faculty, staff, students) were consulted in preparing the proposal; and comment on additional resources required to implement the program modification.</i>
---

It is proposed to change admission requirements to all Life Sciences (LISC) and Biochemistry (BCHM) programs to create a “direct-entry” pathway, that is, students would apply to Queen’s from secondary school and be admitted into a Bachelor of Science with a concentration in LISC or BCHM (QLB). Principally, this change is administrative rather than curricular and is aimed at making applications into Life Sciences and Biochemistry more robust both in terms of quantity and quality.
---

Given that 24.0 units of 30.0 units taken in first year are already prescribed as prerequisites for the second step of admission to LISC and BCHM plans, this is already a de facto direct-entry admission experience in terms of the set curriculum.
---

The significant advantage of this proposed change from a student point of view is the assurance of acceptance into their desired plan of study at their time of admission to Queen's. We have noted that students are not choosing to apply to the general Science program en route to Life Sciences or Biochemistry because of the uncertainty of our current two-step process and so we are potentially losing excellent students to direct-entry programs like McMaster (Life Sciences and Health Sciences), University of Ottawa (Biomedical Science, Biochemistry), Western University (Medical Sciences and Health Sciences), and University of Toronto (Life Sciences, Biochemistry), among others. When candidates apply to Queen's they do not currently have the option to select Life Sciences or Biochemistry as a direct entry program.

Data from the 'Acceptance Declined Survey' indicates that 64% of the applicants broadly identified "Program" as the reason they declined the offer of admission. Specifically, within that category, 53% of respondents indicated that "the program offered at Queen's was not my first choice" and "the program has a better reputation at the school I plan to attend". We attribute these responses to applicants comparing an offer to a specific program (e.g. Life Sciences at McMaster) to our general Science first year. Further, we know over 25% of our general Science applicant pool expresses interest in Life Sciences at Queen's. Our goal is to align our direct entry options with applicant demand and consistent with our competitor set of institutions. A direct-entry option will make Queen's more attractive to incoming students and thus give us access to more of these excellent students in this high-demand field of study.

Another advantage resulting from this change in admission includes increased stability and certainty for LISC, BCHM and the other Science programs in managing enrolments. The intake targets for QL (combined LISC and BCHM students) and QS will be separate.

Currently LISC is the largest concentration in the Faculty of Arts and Science, admitting 340 students into 2<sup>nd</sup> year plans in May 2019 (155 LISC-SSP and 185 LISC-MAJ). Direct entry will provide stability in managing enrolment numbers in these LISC plans. Similarly, we are proposing that given the tight connections between the LISC and BCHM programs, that it is imperative that we include BCHM as a direct entry program, despite the numbers being relatively smaller. Likewise this will also increase stability for those programs remaining under the QS code. For students who are interested in other Science fields, this change means that they will not be competing against those students for spots in Science (QS). With the two streams separate, we will be better able to manage enrolment and curriculum offerings for these distinct cohorts.

The creation of the direct entry pathway will allow for a "hybrid" model with some proportion of students being admitted via this pathway (QL) and some proportion of students being admitted into the general science program (QS) and being able to join LISC/BCHM concentrations at the end of their first year of study via the existing "2-step" process (described below). The exact ratio of proportions will fluctuate year-to-year depending on student demand and the current enrollment priorities as determined by the Dean.

## Part B – Evaluation Criteria

To facilitate evaluation of the proposal for a major modification of an existing undergraduate program, only the relevant textboxes below need to be completed (consult with the provost's office at [qugap@queensu.ca](mailto:qugap@queensu.ca) to confirm the information required). Academic units should refer to the new undergraduate program template (available [here](#)) for details regarding the sections and tables in that template that need to be completed as specified and imported into the relevant sections below. Academic units should bear in mind the diverse groups (e.g. Faculty Board, SCAD, Senate) that will be reviewing their submission and prepare their proposal accordingly.

**Significant Modification of Program Requirements From Those Existing at the Time of Previous Cyclical Review (e.g. admission or graduation requirements)**

**OR Significant Changes to Program Structure (e.g. to courses comprising the Program, typically no more than 35%)**

**Information required:** Specify the nature of the changes in terms of course requirements [Section 3.2 including Table 1], any new courses added [Section 3.3] outline how the changes support the Degree Level Expectations and learning outcomes [Section 5.1 including Table 3], justify any changes to admission [Section 2.1], language [Section 2.2] and/or degree requirements [Section 3.1]. Specify the resource implications [Section 8; space, faculty, staff, budget – include Budget Module and Budget Template of New Program template if appropriate]

Currently, admission to LISC or BCHM is, as the most recent Cyclical Program Review describes, a “2-step process.” In the first step, secondary school students apply to 1<sup>st</sup> year Science (QS program code) and are admitted into ASC1. The minimum requirements for admission to QS are: Ontario English 4U, Advanced Functions 4U, Calculus and Vectors 4U, plus two of Biology 4U, Chemistry 4U, or Physics 4U. Students applying from outside Ontario are required to present equivalent credentials. Although first-year Science students may choose from any of the 1<sup>st</sup> year courses offered in FAS, there are however a number of prerequisites for entry into LISC plans: BIOL 102/103, CHEM 112, MATH 121, PHYS 104 or 106 or 117, plus one elective. In the second step, students at the end of their 1<sup>st</sup> year of study at Queen’s choose a plan. It is at this point that students in ASC1 who have the appropriate prerequisites may request admission to LISC SSP or MAJ plans. Students with a 1<sup>st</sup> year cumulative GPA of 3.2 are given automatic acceptance. Students with a 1<sup>st</sup> year cumulative GPA of 2.0 are placed on a pending list for subsequent consideration, pending available space. In May 2019, 340 students were accepted into LISC SSP and MAJ plans, and 48 students were admitted to BCHM SSP and MAJ plans. The cumulative GPA cut-off for these plans was 2.3 and 2.5 respectively. The LISC cohort of 340 students comprises 37.2% of the actual number admitted to Science (QS = 912) for first year in September 2018.

The proposal to change the Bachelor of Science (Life Science SSP and MAJ, Biochemistry SSP and MAJ) to direct entry will alter this second step such that students will only need to decide between Life Sciences and Biochemistry. A new admissions category (QL) will be created. The first step will remain unchanged. Commencing with the incoming cohort for September 2021, the minimum requirements for admission will be the same secondary school prerequisite courses as previously required for Science (QS). The core plan requirements for both LISC SSP/MAJ and BCHM SSP/MAJ will also remain unchanged. Students will still be required to take BIOL 102/103, CHEM 112, MATH 121, PHYS 104 or 106 or 117, plus one elective in their first year of study. In essence, the student experience of the curriculum structure will remain unchanged. Although in future, the direct-entry admission pathway that distinguishes LISC and BCHM from general Science may permit specialization in the curriculum earlier in these programs, with students being introduced to specific Life Sciences and Biochemistry content in tailored first year courses.



**Other Changes that Affect the Learning Outcomes but Do Not Constitute a New Program**

**Information required:** Consult with the provost’s office

No other changes are proposed at this time.

## Part C - Authorizations

**Note:** Refer to Part B for necessary authorizations

<i>Department Head(s)</i>	 <hr style="width: 100%;"/> <i>Signature</i>	<hr style="width: 100%;"/> <i>Date</i>
<i>Faculty Dean(s) (or delegate)</i>	 <hr style="width: 100%;"/> <i>Signature</i>	<hr style="width: 100%;"/> <i>Date</i>
<i>Associate Vice-Principal, Planning and Budgeting (if applicable)</i>	<hr style="width: 100%;"/> <i>Signature</i>	<hr style="width: 100%;"/> <i>Date</i>
<i>Vice-Provost and University Librarian (if applicable)</i>	<hr style="width: 100%;"/> <i>Signature</i>	<hr style="width: 100%;"/> <i>Date</i>
<i>University Registrar</i>	<hr style="width: 100%;"/> <i>Signature</i>	<hr style="width: 100%;"/> <i>Date</i>
<i>Provost and Vice-Principal (Academic)</i>	<hr style="width: 100%;"/> <i>Signature</i>	<hr style="width: 100%;"/> <i>Date</i>
<i>Date approved by Faculty Board(s) Committee(s)</i>		
<i>Date Approved by SCAD</i>		
<i>Date Approved by Senate</i>		