



## **KPU Board of Governors - Regular Meeting**

**Date:** January 31, 2024

**Time:** 4:00 pm – 4:15 pm

**Via MS Teams:** [Click here to join the meeting](#)

### **Phone Dial-in**

**+1 604-449-3508 (Canada (Vancouver))**

**Conference ID: 646 132 267#**



## BOARD OF GOVERNORS – REGULAR MEETING AGENDA

**Regular Meeting Minutes**

**January 31, 2024**

**Time: 4:00– 5:15 pm**

**Via Microsoft Teams: [Click here to join the meeting](#)**

**Phone Dial-in: +1 604-449-3508 (Vancouver) Conference ID: 646 132 267#**

**Attending:** Ivy Chen (Chair), Rhiannon Bennett (Vice Chair), Kwuntiltunaat (Kim) Baird, Michael Chang, Paul Choi, Alan Davis, Ishant Goyal, Aryan Kalia, Amos Kambere, Muhammad Afzal Malik, Lyndsay Passmore, Rod Ross, Takashi Sato, Amanda Smith-Weston, Waheed Taiwo

*M = Motion to Approve  
D = Discussion  
I = Information  
E = Education*

**Regrets:**

**Presenters & Administrative Resources:** Sonia Banwait, Brett Favaro, Laurie Clancy, Lily Chong, Chervahun Emilien, Randall Heidt, Stephanie Howes, Lori McElroy, Zena Mitchell, Ulrich Paschen, Diane Purvey, Asma Sayed, Peter Smailes

**4:00 pm Regular Board Meeting  
Closed Board Meeting to follow  
In Camera Debriefing Session to follow**

<i><b>Agenda Item</b></i>	<i><b>Resource</b></i>	<i><b>Action</b></i>	<i><b>Time</b></i>	<i><b>Page</b></i>
1. Call to Order & Introductory Remarks	Ivy Chen		4:00	
We at Kwantlen Polytechnic University respectfully acknowledge that we live, work and study in a region that overlaps with the unceded traditional and ancestral First Nations territories of the Musqueam, Katzie, Semiahmoo, Tsawwassen, Qayqayt, and Kwikwetlem, and with the lands of the Kwantlen First Nation, which gifted its name to this university.				
2. Approval of Agenda	Ivy Chen	M	4:01-4:02	3
<b>MOTION:</b> THAT the Board of Governors approve the regular meeting agenda for January 31, 2024.				
3. Conflict of Interest	Ivy Chen		4:02-4:03	
4. Consent Agenda	Ivy Chen	M	4:04-4:06	6
4.1. Minutes of the November 29, 2023 Regular Board of Governors Meeting				7

4.2. Program Discontinuance: Diploma in Applied Business Technology	Stephanie Howes / Ulrich Paschen	M	11
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**MOTION:** THAT the Board of Governors approve the following items on the Consent Agenda:

4.1. Minutes of the November 29, 2024 Regular Board of Governors Meeting

4.2. Diploma in Applied Business Technology, for discontinuance on September 1, 2024

5. Governance Committee Report				
5.1. Committee Chair Report	Amos Kambere	I	4:06-4:07	
6. Human Resources Committee Report				
6.1. Committee Chair Report	Rhiannon Bennett	I	4:07-4:08	
6.2. HR20 – Search Advisory, Appointment and Re-Appointment of Senior Academic Administrator Positions – Policy and Procedure (Revision) AND HR 22 – Presidential Search Advisory, Appointment and Re-Appointment – Policy and Procedure (Revision)	Laurie Clancy	M	4:08-4:10	17

**MOTION:** THAT the Board of Governors approve the following revised policies and procedures as recommended by the Board Human Resources Committee:

- HR20 – Search Advisory, Appointment, and Re-Appointment of Senior Academic Administrator Positions; and,
- HR22 – Presidential Search Advisory, Appointment and Reappointment

7. Audit Committee Chair Report	Ivy Chen	I	4:10-4:11	
8. Finance Committee Report	Ivy Chen	I	4:11-4:12	
8.1. Committee Chair Report				
8.2. FY2025 Draft University Budget	Chervahun Emilien	M	4:12-4:52	35

**MOTION:** THAT the Board of Governors approve the draft consolidated budget as the 2024-25 consolidated budget, as recommended by the Board Finance Committee.

8.3. FY2024 Revision to Bylaw No. 4, Fees	Chervahun Emilien	M	4:52-5:02	64
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**MOTION:** THAT the Board of Governors approve the revisions to Bylaw No. 4, Fees, as presented and recommended by the Board Finance Committee.

9. Program Revisions: (a) Bachelor of Science, Major in Biology, Cooperative Education Option; (b) Bachelor of Science (Honors), Major in Biology, Cooperative Education Option	Lily Chong, Brett Favaro	M	5:02-5:07	81
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**MOTION:** THAT the Board of Governors approve the revisions to the Bachelor of Science, Major in Biology, Cooperative Education Option, and the Bachelor of Science (Honors), Major in Biology, Cooperative Education Option programs, effective September 1, 2024 and as recommended by Senate.

10. President's Report 10.1. Report to the Board	Alan Davis	I	5:07-5:08	
11. Provost's Report 11.1. Report to the Board	Diane Purvey	I	5:08-5:09	
12. Senate Report – meeting held on <a href="#">December 18, 2023</a> and <a href="#">January 22, 2024</a>	Alan Davis	I	5:09-5:10	
13. Next Meeting Agenda Contribution	Ivy Chen	D	5:10-5:11	
14. For the Good of the Order	All	D	5:11-5:12	
15. Feedback on the Meeting	All	D	5:12-5:13	
16. Closing Remarks	Ivy Chen		5:13-5:14	
17. Next Meeting: Regular Board Meeting Wednesday, March 27, 2024 <b>MS TEAM Meeting</b> 4:00 – 7:00 pm	Ivy Chen		5:14-5:55	
18. Adjournment	Ivy Chen		5:15	

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## BOARD OF GOVERNORS - REGULAR MEETING

**Agenda Number: 4**

**Meeting Date:** *January 31, 2024*

**Presenter(s):** *Ivy Chen*

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**AGENDA TITLE:** CONSENT AGENDA

**ACTION REQUESTED:** Motion

**RECOMMENDED RESOLUTION**

**THAT the Board of Governors approve the following items on the Consent Agenda:**

**4.1. Minutes of the November 29, 2023 Regular Board of Governors Meeting.**

**4.2. Program Discontinuance: Diploma in Applied Business Technology**

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**Attachments**

1. Minutes of the November 29, 2023 Regular Board of Governors Meeting.
2. Program Discontinuance: Diploma in Applied Business Technology

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**Submitted by**

Sonia Banwait, Interim Executive Assistant to the Board of Governors

**Date submitted**

January 23, 2024

## BOARD OF GOVERNORS - REGULAR MEETING

*Regular Meeting Minutes*

*November 29, 2023*

*Via Microsoft Teams*

**Present: Board**

Ivy Chen / Chair  
Rhiannon Bennett / Vice Chair  
Michael Chang  
Paul Choi  
Alan Davis / President & Vice  
Chancellor  
Ishant Goyal  
Lyndsay Passmore  
Takashi Sato  
Amanda Smith-Weston

**University G8 members**

Laurie Clancy / VP, Human Resources  
Jennifer Duprey / General Counsel  
Chervahun Emilien / Chief Financial Officer  
Randall Heidt / VP, External Affairs  
Zena Mitchell / VP, Students  
Diane Purvey / Provost & VP, Academic  
Asma Sayed / Interim VP, Equity & Inclusive  
Communities  
Peter Smailes / VP, Administration

**Presenters and Administrative Resources**

Dr. David Burns / AVP, Academic  
Lily Chong / Interim University Secretary &  
Executive Assistant to the President & Vice  
Chancellor  
Andhra Goundrey / Dean, Faculty of Design  
Carley Hodgkinson / GDMA Instructor  
Stephanie Howes / Dean, School of Business  
Ranminder Kaur / Executive Assistant to the Board  
of Governors  
Andy Law / School of Business Instructor  
Dr. Lori McElroy / AVP, Planning and  
Accountability  
Mandeep Pannu / School of Business Instructor

**Regrets: Kim (Kwuntiltunaat) Baird /**

Chancellor  
Aryan Kalia  
Amos Kambere  
Muhammad Afzal Malik  
Rod Ross  
Waheed Taiwo

**1. Call to Order and  
Introductory Remarks**

The Chair called the meeting to order at 4:04pm.  
The Chair acknowledged KPU's commitment to reconciliation  
and recognition that we live, work and study in a region that  
overlaps with the unceded traditional and ancestral First Nations  
territories of the Musqueam, Katzie, Semiahmoo, Tsawwassen,

Qayqayt, and Kwikwetlem, and with the lands of the Kwantlen First Nation, which gifted its name to this university.

### ***1.1. Welcome by KPU Elder in Residence***

The Chair welcomed Lekeyten, KPU Elder in Residence. Lekeyten welcomed the members of the board, and expressed his good wishes for the year ahead.

The Chair thanked Lekeyten, KPU Elder in Residence, for his welcome to the shared traditional territories. The Chair thanked Lekeyten for his inspiration, warmth and his goodness.

## **2. Approval of Agenda**

### **Motion #06-23/24**

**MOVED, SECONDED AND CARRIED THAT the Board of Governors approve the regular meeting agenda for November 29, 2023.**

## **3. Conflict of Interest**

No other conflict of Interest was declared.

## **4. Approval of Consent Agenda**

### **Motion #07-23/24**

**MOVED, SECONDED AND CARRIED the Board of Governors approve the following item on the Consent Agenda:**

**4.1. Minutes of the September 27, 2023 Regular Board of Governors Meeting.**

**4.2. Diploma in Front-End Development for Interactive Applications program, for implementation on September 1, 2024.**

**4.3. Citation in Cloud Architecture and Security program, for implementation on September 1, 2024.**

**4.4. Subject to budgetary approval, approve the attached list of procurement opportunities greater than \$200,000.**

## **5. Governance Committee Report**

### ***5.1. Committee Chair Report***

Committee Vice Chair, Ms. Bennett advised the Governance Committee met on November 15, and received Code of Conduct Declarations executed by new board members and Board composition and succession plan.

Members noted that the other items discussed at the meeting are on the agenda.

## **6. Human Resources Committee Report**

### ***6.1. Committee Chair Report***

Committee Chair, Ms. Bennett, advised that the Human Resources Committee met on November 16, and received an update on HR 20 and HR 22 policies.



## **7. Audit Committee Report**

### ***7.1. Committee Chair Report***

Committee Chair, Ms. Chen, advised that the Audit Committee met on November 21, and that there was nothing to report.

## **8. Finance Committee Report**

### ***8.1. Committee Chair Report***

Committee Chair, Ms. Chen, advised that the Finance Committee met on November 21, and items discussed at the meeting are on the agenda.

### ***8.2. Financial Update***

Ms. Emilien presented the report and commented that the FY 2024-2025 budget development process is underway.

Ms. Emilien noted that a number of meetings have been set with stakeholders throughout the budget development process and commented that KPU's Executive Leadership team consolidated, prioritized and reviewed budget requests for their respective portfolios during October and November.

Ms. Emilien noted that a draft budget will be presented to the Finance Committee, and to the full board in January for approval.

Ms. Emilien commented that there will be limited ongoing revenues for 2025. Members noted that Financial Services was looking at a one-time only funding for ongoing projects.

Ms. Emilien updated members with figures as of October 31, 2023 and commented that it has identified further \$8 million surplus since September. KPU is anticipating a \$21 million surplus to the end of the fiscal year. Members noted that the change is due to portfolios underspending allocated budget funds in both salary and non-salary expenses.

## **9. President's Report**

### ***9.1. Report to the Board***

Dr. Davis advised that the President's Report was circulated by the Board office. Dr. Davis noted the significant number of activities around KPU featured in the report.

Dr. Davis commended Ms. Caroline Lillico for diligently working on the Board reports over the years. Members noted that Ms. Lillico will be retiring at the end of the year. Dr. Davis thanked Ms. Lillico for her services to the President's Office and KPU.

Members acknowledged and thanked Ms. Lillico for her services, and wished her a healthy retirement.

**10. Provost's Report**

***10.1. Report to the Board***

Dr. Purvey advised members that the Provost's report was circulated by the Board office.

**11. Senate Reports**

Dr. Davis advised that the Senate Reports were prepared by Senate Vice-Chair, Catherine Schwichtenberg, and was included in the meeting package.

**12. Next Meeting Agenda Contribution**

Board members were asked to send contributions for the next meeting agenda to the Board Office at least two weeks in advance of the meeting.

**13. For the Good of the Order**

There were no additional items identified.

**14. Feedback on the Meeting**

There was no other feedback on the meeting.

**15. Closing Remarks**

The Chair thanked everyone, including Board Members for attending and contributing to the discussions. The Chair also thanked the guests who attended the meeting.

**16. Appendix**

***16.1. Report to the Board of Governors***

The November 2023 Report to the Board of Governors was received.

**17. Next Meeting**

The next meeting has been scheduled for Wednesday, January 31, 2024.

**18. Adjournment**

The meeting adjourned at 4:30 pm.

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**Board Chair**

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## BOARD OF GOVERNORS - GOVERNANCE COMMITTEE

**Agenda Number:** 4.2

**Meeting Date:** January 31, 2024

**Presenter(s):** Stephanie Howes, Ulrich Paschen

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**AGENDA TITLE:** PROGRAM DISCONTINUATION: DIPLOMA IN APPLIED BUSINESS TECHNOLOGY

**ACTION REQUESTED:** Motion

**RECOMMENDED RESOLUTION:**

**THAT the Board of Governors approve the discontinuation of the Diploma in Applied Business Technology, effective September 1, 2024.**

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### COMMITTEE REPORT

On December 18, 2023, Senate recommended that the Board of Governors approve the discontinuation of the Diploma in Applied Business Technology, effective September 1, 2024

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#### Context and Background

The Diploma in Applied Business Technology has not had a student intake in more than 5 years. According to Policy AC10, programs currently under ongoing intake cancellation will need to ask Senate for authorization to continue cancelling intakes after three terms. Programs we have no intention of offering should be discontinued. The two ABTY courses affected (ABTY 2110 and ABTY 2120) have already been discontinued.

#### Attachments

1. Senate Office Memorandum

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#### Submitted by

Sonia Banwait, Interim Executive Assistant to the Board of Governors, Office of the President

#### Date submitted

January 5, 2024

## SENATE OFFICE MEMORANDUM

<b>TO</b>	KPU Board of Governors
<b>CC</b>	Sonia Banwait, Confidential Assistant to the Board of Governors
<b>FROM</b>	Catherine Schwichtenberg, Vice-Chair, University Senate
<b>DATE</b>	December 19, 2023
<b>SUBJECT</b>	Program Discontinuation: Diploma in Applied Business Technology

On December 18, 2023, Senate recommended that the Board of Governors approve the discontinuation of the Diploma in Applied Business Technology program, effective September 1, 2024.

Attached are the documents reviewed by Senate.

*Catherine Schwichtenberg, Vice-Chair, Senate*

## SENATE

**Agenda Number: 8.1**

**Meeting Date: December 18, 2023**

**Presenter(s): Catherine Schwichtenberg**

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**AGENDA TITLE:** PROGRAM DISCONTINUANCE: DIPLOMA IN APPLIED BUSINESS TECHNOLOGY

**ACTION REQUESTED:** MOTION

**THAT Senate recommend that the Board of Governors approve the discontinuation of the Diploma in Applied Business Technology, effective September 1, 2024.**

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### COMMITTEE REPORT

On November 8, 2023, the Senate Standing Committee on Curriculum recommended that Senate approve the discontinuation of the Diploma in Applied Business Technology, effective September 1, 2024.

On November 24, 2023, the Senate Standing Committee on Academic Planning and Priorities recommended that Senate approve the discontinuation of the Diploma in Applied Business Technology, effective September 1, 2024.

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### Context and Background

The Diploma in Applied Business Technology has not had a student intake in more than 5 years. According to Policy AC10, programs currently under ongoing intake cancellation will need to ask Senate for authorization to continue cancelling intakes after three terms. Programs we have no intention of offering should be discontinued. The two ABTY courses affected (ABTY 2110 and ABTY 2120) have already been discontinued.

### Key Message(s)

Discontinuance of the Diploma in Applied Business Technology.

### Resource Requirements

n/a

### Implications/Risks

n/a

### **Consultations**

- Zena Mitchell, Office of the Registrar (OREG): June 18, 2021
- David Burns, Office of the Provost (oPro): Dec 12, 2021
- Jennifer O'Brien, Office of the Provost (oPro): May 25, 2023
- Shelley Boyd, Faculty of Arts (FoA): October 3, 2023
- Provost: Oct 6, 2023
- Melville School of Business Curriculum Committee: Oct 16, 2023
- Melville School of Business Faculty Council: Oct 23, 2023
- Senate: TBA
- Board Governance: TBA
- Board of Governors: TBA

### **Attachments:**

- Appendix
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### **Submitted by**

Sonia Banwait, Administrative Assistant, University Senate

### **Date submitted**

December 4, 2023

## Appendix

### Program Discontinuance: Diploma in Applied Business Technology

#### **A proposal to discontinue a program must include the following:**

- i. All impacted credentials and specific discipline or field of study;
  - a. *Diploma in Applied Business Technology*
  - b. *Faculty of Arts through single elective courses:*
    - i. *PHIL 1150*
    - ii. *PSYC 1100*
    - iii. *ENGL 1100*
- ii. Location(s) of the program;
  - a. *KPU Surrey*
- iii. Faculty, Department, or School offering the program;
  - a. *Melville School of Business, LGLA – Legal Administration*
- iv. Anticipated final date of discontinuance;
  - a. *1 September 2024*
- v. Reasons for discontinuance of the program, such as:
  - a. *Intake cancellation for more than 5 years*
- vi. Plan for phasing-out of program, including:
  - 1) Steps taken to consult with faculty and staff regarding phasing out
    - a. *Final two dedicated courses (ABTY 2110 and ABTY 2120) have been discontinued at the request of the department in 2022.*
    - b. *No further involvement planned by department.*
  - 2) Steps taken to consult with students regarding phasing out
    - a. *Intake to program has been cancelled for so long that no affected students could be identified.*
  - 3) Steps taken to ensure students in the program have the opportunity to complete the program
    - a. *Intake to program has been cancelled for so long that no affected students could be identified*
  - 4) Steps taken to consult with other impacted departments, Faculties, and units;
    - a. *Consultations as per itemized and dated list in memo*

- 5) Impact on and/or reorganization of curriculum in cognate disciplines
  - a. No current impact expected due to long period of intake cancellation.*
  - b. Faculty of Arts has been informed of plan to discontinue due to the inclusion of PHIL 1150, PSYC 1100, and ENGL 1100 as electives. Dean Boyd has not raised any objections.*
  - c. Melville School of Business affected departments have been informed of plan to discontinue as part of Curriculum Committee approval process. No objections were raised.*
- 6) Timeline of activities
  - a. Dec 2021 – Request to discontinue program received from Dr. David Burns*
  - b. Further timeline as per dated approval process on memo*
- vii. Name, title, phone number and email address of the institutional contact person in case more information is required (normally, the Dean of the Faculty in which the program is housed).
  - a. Stephanie Howes, Dean, Melville School of Business  
604-599-3251, [stephanie.howes@kpu.ca](mailto:stephanie.howes@kpu.ca)*
- viii. Potential legal implications as a result of the program discontinuance;
  - a. none foreseen.*
- ix. Endorsement by the Provost
  - a. Obtained Oct 6, 2023:



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## BOARD OF GOVERNORS - REGULAR MEETING

**Agenda Number:** 6.2

**Meeting Date:** January 31, 2024

**Presenter(s):** Laurie Clancy

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**AGENDA TITLE:** HR POLICIES AND PROCEDURES: HR20 SEARCH ADVISORY, APPOINTMENT AND RE-APPOINTMENT OF SENIOR ACADEMIC ADMINISTRATOR POSITIONS POLICY AND PROCEDURE (REVISION) AND

HR22 PRESIDENTIAL SEARCH ADVISORY, APPOINTMENT AND RE-APPOINTMENT POLICY AND PROCEDURE (REVISION).

**ACTION REQUESTED:** Motion

### RECOMMENDED RESOLUTION

**THAT the Board of Governors approve of the following revised policies and procedures as recommended by the Board Human Resources Committee:**

- **HR20 - Search Advisory, Appointment, and Re-Appointment of Senior Academic Administrator Positions; and,**
- **HR22 - Presidential Search Advisory, Appointment, and Re-Appointment.**

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### COMMITTEE REPORT

For Secretariat Use Only

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#### Context and Background

The Human Resources team began the process of revising and updating the above noted policies and procedures in January 2023 in accordance with GV2 – Protocol for the Development of University Policies. These policies and procedures previously went through the revision process in 2013 (HR 20) and 2015 (HR 22), as such they were due for review.

1. KPU partnered with the Diversity Institute at Toronto Metropolitan University on the revision of these policies, to ensure equity, diversity, and inclusion principles were embedded within the documents.
2. Key changes include the addition of policy principles, the removal of terms for the University Librarian and University Register positions, and updating the term length for Associate Deans

from three years to five years to align with other academic roles and allow for more stable and continuous leadership.

3. The draft policies and procedures completed the three-week phase one policy blog posting from January 10<sup>th</sup> to January 30<sup>th</sup>, 2023 and the three-week phase two policy blog posting from December 4<sup>th</sup> to December 22<sup>nd</sup>, 2023.

### **Resource Requirements**

N/A

### **Implications/Risks**

If these policies and procedures are not approved, KPU is at risk for out of date hiring practices. The proposed revisions help set the tone for the culture that KPU is striving to work towards.

### **Consultations**

Extensive consultations were held with the KPU community throughout this process. This included those who elected to be part of the process through the phase one posting and those who were identified as key parties. In addition, an open consultation session was held for anyone who wished to participate and provide feedback.

At the beginning of January 2024, support to continue to the final approval stage (the Board) was received from KPU's Polytechnic University Executive (PUE) group.

### **Attachments**

1. Policy HR20 – Search Advisory, Appointment, and Re-Appointment of Senior Academic Administrator Positions
  2. Procedure HR20 – Search Advisory, Appointment, and Re-Appointment of Senior Academic Administrator Positions
  3. Policy HR22 – Presidential Search Advisory, Appointment, and Re-Appointment
  4. Procedure HR22 – Presidential Search Advisory, Appointment, and Re-Appointment
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### **Submitted by**

Laurie Clancy - Vice President, Human Resources

### **Date submitted**

January 5<sup>th</sup>, 2024

Policy History
<b>Policy No.</b> HR20
<b>Approving Jurisdiction:</b> Board of Governors
<b>Administrative Responsibility:</b> Vice President Human Resources
<b>Effective Date:</b>

## Search Advisory, Appointment and Re-Appointment of Senior Academic Administrator Positions Policy

### A. CONTEXT AND PURPOSE

This Policy and its related Procedure outline the principles and procedures that will be used by KPU in the selection and appointment of senior academic administrator positions within KPU. It complements and supports KPU's Employment Equity Policy and Procedure (HR16).

Section 27 (2) (g) of the University Act outlines the powers of the Board which include the power "...to appoint the president of the university...and the officers and employees the board considers necessary for the purpose of the university, and to set their salaries or remuneration, and to define their duties and their tenure of office or employment".

To execute this Policy and Procedure, the Board has delegated its powers under Section 27 (2) (g) to the Board Human Resource Committee or to the President, and other senior administrators with the exception of hiring for the positions of President, Provost and other Vice-Presidents, which require full Board approval (see Board Governance Manual, Appendix H).

### B. SCOPE AND LIMITS

This Policy and its related Procedure outlines the principles and procedures for the selection and appointment of candidates for senior academic administrator positions with the exception of the President (Policy HR22).

### C. STATEMENT OF POLICY PRINCIPLES

1. **Talent:** KPU will hire talented individuals who have the qualifications required to be successful and excel in the position and work environment.
2. **Values:** every position at KPU is key to our ability to achieve our shared institutional vision. Each time we hire an employee, we are given a chance to enhance this community and support and advance the student experience. KPU will hire individuals who demonstrate that they can successfully work in support of these values and shared practices. Candidates should display how they can positively integrate into KPU's culture and work values.
3. **Diversity and Representation:** KPU will uphold its commitment to diversity and inclusion through providing training for search committee members related to unconscious biases and

how to combat them when recruiting and hiring qualified candidates. Fair, legal, inclusive, and effective hiring practices that support and comply with KPU policies and procedures in a way that is mindful of culture, diversity, and inclusion will form the foundation of each search. As reasonably possible, efforts for diverse representation and diversity of thought will be considered when appointing individuals to a Search Advisory Committee (SAC). Support and guidance can be provided by KPU's Office of Equity and Inclusive Communities, as needed.

4. **Equity:** KPU will apply equitable processes for the selection, appointment, and reappointment of both external and internal candidates for administrative roles, and will take steps to mitigate barriers within hiring processes. Hiring decisions are to be objective, impartial, and free of personal bias.
5. **Due Process:** KPU will act in a timely manner towards the selection and appointment of administrative positions while abiding by required processes and upholding policy principles.
6. **Confidentiality:** KPU will ensure that only those involved in the selection, appointment, and reappointment process will have access to candidate information during the related processes, and will comply with KPU's obligations under the Freedom of Information and Protection of Privacy Act of BC.

## D. DEFINITIONS

Refer to Section A of *HR20 Search Advisory, Appointment and Re-Appointment of Senior Academic Administrator Positions* Procedure for a list of definitions in support of this Policy.

## E. RELATED POLICIES & LEGISLATION

*University Act*

*Board Governance Manual*

*Freedom of Information and Protection of Privacy Act, R.S.B.C 1996, Ch 165*

*HR1 Conflict of Interest*

*HR16 Employment Equity*

*HR11 Search Advisory and Appointment of Administrative Positions*

*HR22 Presidential Search Advisory, Appointment and Re-Appointment*

*HR25 Search Advisory and Appointment of Senior Administrative Positions*

*HR26 Responsibilities and Compliance Requirements for the Appointment and Termination of Administrative Staff*

*IM2 Freedom of Information*

*IM4 Confidentiality*

*IM8 Privacy*

*Terms and Conditions of Employment for Administrative Employees*

## F. RELATED PROCEDURES

*HR20 Search Advisory, Appointment and Re-Appointment of Senior Academic Administrator Positions*

Policy History
<b>Policy No.</b> HR20
<b>Approving Jurisdiction:</b> Board of Governors
<b>Administrative Responsibility:</b> Vice President Human Resources
<b>Effective Date:</b>

## Search Advisory, Appointment and Re-Appointment of Senior Academic Administrator Positions Procedure

### A. DEFINITIONS

1. **Candidate Profile:** Outlines the position, the desired education, knowledge, experience, abilities and traits that the ideal candidate should possess in order to successfully perform in the role, as well as an overview of Kwantlen Polytechnic University (KPU), search process and other factors the candidate might want to consider in determining whether or not to apply. Candidate profiles are created by Human Resources or an external search consultant (when used).
2. **Hiring Manager:** The administrator with the authority to make a hiring decision for a position; they are also the respective Search Advisory Committee (SAC) Chair as referenced in the Appendix.
3. **Human Resources** Responsible for providing support, expertise and guidance to the SAC Chair and SAC members through the entire search process.
4. **Job Description:** Describes the reporting relationship, primary function, key responsibilities, and qualifications of any role covered by this Policy and Procedure. Job descriptions are created by Human Resources and the hiring manager for the position and undergo approval by the Post Secondary Employers' Association.
5. **Key Party:** Individuals identified by the hiring manager, Human Resources and/or SAC with whom the potential candidate might directly or indirectly work with such as a one-up-supervisor, direct report, and/or peer. Key party members will uphold the values of KPU to provide a safe, welcoming and inclusive environment for the candidate and will participate in key party meetings with full attention.
6. **Pro Tem:** Acting positions; in a position temporarily.

7. **Search Advisory Committee (SAC):** For the purpose of this policy, a committee established for the search of an administrative candidate by the hiring manager. The committee will be diverse and representative of KPU's values to provide an inclusive environment for candidates and colleagues.
8. **Senior Academic Administrator Positions:** Senior academic administrator positions, for the purpose of this Policy and related Procedure, will include the Provost and Vice President Academic; Associate Vice President Academic; Associate Vice President Research and Innovation; Deans; University Librarian; University Registrar; Associate Deans; and other Senior Academic Administrator positions as may be determined from time to time. Specific titles of senior positions may change over time.

## **B. PROCEDURES**

### **1. Search Advisory Committee (SAC)**

- a. KPU will appoint a SAC. The SAC shall familiarize themselves with the job description in order to assess candidate suitability. The role of the SAC will be to interview and recommend appropriate candidates for the senior academic administrator positions covered by this Policy.
- b. Details of the composition of the SAC for senior academic administrator positions covered by this Policy are listed in the attached Appendix – Composition of Search Advisory Committees.
- c. The SAC will be bound by the following regulations:
  - i. In advance of the posting of a new appointment, the members of the SAC will be appointed according to the Appendix to this procedure. The Collective Agreement between KPU and the Kwantlen Faculty Association (KFA) will be followed for the appointment of KFA representatives to SACs.
  - ii. SAC members shall disclose any conflicts of interest with applicants and may be excused if the conflict cannot be mitigated. SAC members will be required to sign a Confidentiality Agreement prior to their commencement.
  - iii. Before the SAC is finalized, potential members of the SAC must agree, as a condition of membership, that they will not be candidates for the position under consideration.
  - iv. For the SACs referred to in this Policy, faculty appointed by the Senate will be based on recommendations from the Senate Governance and Nominating Committee in consultation with each Faculty Council to ensure appropriate representation, taking into account Faculty representatives appointed by the KFA. Other appointments are made according to the Appendix.
  - v. If a SAC member must resign their position, where possible, replacements will come from a similar constituency. Replacements may not be made after the start of interviews.

- vi. All proceedings of the SAC and all communication to and from the SAC shall be held in strictest confidence, and all members of the SAC will comply with their obligations under related legislation and KPU policies, both during the term of the SAC and thereafter. Only the SAC Chair is authorized to release information about the proceedings of the SAC. Any SAC member who fails to comply with the requirement of confidentiality will be discharged from membership of the SAC and may also be subject to disciplinary action.

## **2. Time Limits**

- a. Senior Academic Administrator Positions, with the exception of the University Registrar and University Librarian whose appointment is permanent, will be appointed for a five (5) year term. Normally, the position can be renewed for additional five year terms, after a review undertaken according to Section 4 below.

## **3. Renewal of Appointments**

- a. When a senior academic administrator position is being considered for renewal, a SAC will be established with a composition determined by the Appendix to provide a recommendation on their re-appointment.
- b. The SAC may inform the KPU community that a review of the incumbent will be conducted and invite submissions, as the SAC shall deem appropriate.
- c. After it reviews the incumbent, the SAC will determine whether it will recommend reappointment of the incumbent.
- d. The SAC Chair will make a written recommendation to the appropriate party which includes the advice of the SAC.
- e. If the incumbent is not reappointed, the SAC Chair will determine next steps in consultation with Human Resources. The approving party will provide written reasons to the SAC if its recommendations are not accepted or followed.

## **4. The Search Process:** the search process are the procedures that the SAC will follow to select, appoint, or re-appoint candidates. The search process will honour the Policy principles and will incorporate KPU's efforts for diversity, equity, and inclusion, including provisions within HR16.

- a. Searches for positions covered by this Policy will be conducted by Human Resources as outlined in Policy HR26. The President, or their designate, will decide if an external search consultant will be used to work under the direction of Human Resources.
- b. The job description will be developed by Human Resources and the Hiring Manager, and approved by the Post Secondary Employers' Association. The Administrative Job Description will be provided to the SAC to use to assess candidate suitability during the search.
- c. The candidate profile and job postings will be developed by Human Resources and the administrative person responsible for the position. The SAC will provide advice on the advertising strategy.
- d. The position will be widely advertised both internally and externally.
- e. Applications will be provided in confidence to the SAC.

- f. In consultation with a member of Human Resources, the SAC will review and approve the format, questions and evaluation system for the interviews and will also identify those candidates who will be included in the long list.
- g. If a SAC member is absent from any of the interviews, normally they will not participate in further interviews, deliberations or recommendations to the SAC Chair. Exceptions may be made by the SAC Chair in consultation with Human Resources.
- h. The SAC may invite the short-listed candidates to meet with various Key Parties. The SAC will determine a mechanism to provide feedback on candidates.
- i. The SAC Chair will make a recommendation to the appropriate party, which includes the advice of the SAC. Normally, this recommendation will include up to three (3) candidates who the SAC deems acceptable to fill the position, in order of preference.
- j. The appropriate party will provide written reasons to the SAC if its recommendations are not accepted or followed. If all candidates are deemed unacceptable, or no appointment is made, the search will continue.

#### **5. Post Search Process**

- a. Reference and background checks will be conducted of the final candidate.
- b. Negotiations of all terms of employment, employment agreements and verbal and written letters of offers will be handled as outlined in KPU's Policy HR26 and in consultation with, and approval of, the Vice President, Human Resources or designate.

#### **6. Appointment to a Pro Tem Position**

- a. Pro tem appointments will be made in accordance with the Board Governance Manual and the Terms and Conditions of Employment for Administrative Employees. The Senate will be advised of pro tem appointments at the next Senate meeting. Such appointments will be clearly reflected in the designation as "pro tem" and are made for a period of up to twelve (12) months, but may be extended if necessary, subject to the agreement of the KFA.
- b. The Hiring Manager may choose to make a pro tem appointment using procedures under "Section 3, Renewal of Appointments".

## **C. RELATED POLICY**

Refer to Policy HR20 *Search Advisory, Appointment and Re-appointment of Senior Academic Administrator Positions*



	<b>Appendix: Composition of Search Advisory Committees</b>
Provost & Vice President Academic	<p>The SAC shall be chaired by the President and may consist of a combination of the following:</p> <ul style="list-style-type: none"> <li>i) regular faculty members, representing each of the Faculties, with three members appointed by the KFA, and three or more appointed by the Senate to ensure representation from all Faculties</li> <li>ii) one community member of the Board of Governors, appointed by the Board</li> <li>iii) one student, preferably a Senator, appointed by the Senate</li> <li>iv) one student Board member appointed by the Board</li> <li>v) one student appointed by the Kwantlen Student Association</li> <li>vi) one regular BCGEU staff member, appointed by BCGEU</li> <li>vii) one excluded employee, appointed by the Chair</li> <li>viii) one senior administrative officer of the institution, appointed by the Chair</li> <li>ix) two Deans chosen by their peers</li> </ul>
Associate Vice President Academic Associate Vice President Research and Innovation	<p>The SAC shall be chaired by the Provost &amp; Vice President Academic and may consist of a combination of the following:</p> <ul style="list-style-type: none"> <li>i) five regular faculty members, two of whom are appointed by the KFA and three appointed by the Senate to ensure broad representation from among the Faculties</li> <li>ii) one student, preferably a Senator, appointed by the Senate</li> <li>iii) one student Board member appointed by the Board</li> <li>iv) one student appointed by the Kwantlen Student Association</li> <li>v) one regular BCGEU staff member, appointed by the BCGEU</li> <li>vi) one excluded employee, appointed by the Chair</li> <li>vii) one senior administrative officer of the institution appointed by the Chair</li> <li>viii) two Deans chosen by their peers</li> </ul>
Dean	<p>The SAC shall be chaired by the Provost and Vice President, Academic and may consist of a combination of the following:</p> <ul style="list-style-type: none"> <li>i) regular faculty members, two of whom are appointed by the KFA and others appointed by the Senate to ensure representation by the Faculty of the Dean, up to a maximum of eight faculty</li> <li>ii) one student, preferably a Senator, appointed by the Senate</li> <li>iii) one student, registered in a program offered by the Faculty, appointed by the Kwantlen Student Association</li> </ul>

	<ul style="list-style-type: none"> <li>iv) one regular BCGEU staff member, appointed by the BCGEU, preferably selected from the Faculty</li> <li>v) one excluded employee, preferably from the Faculty, appointed by the Chair</li> <li>vi) one senior administrative officer of the institution appointed by the Chair,</li> <li>vii) one Dean appointed by the Provost</li> </ul>
Associate Dean	<p>The SAC shall be chaired by the Dean and may consist of a combination of the following:</p> <ul style="list-style-type: none"> <li>i) regular faculty members, two of whom are appointed by the KFA and others appointed by the Senate to ensure representation by the Faculty of the Associate Dean up to a maximum of eight faculty</li> <li>ii) one student registered in a program offered by the Faculty, appointed by the Senate</li> <li>iii) one student registered in a program offered by the Faculty, appointed by the Kwantlen Student Association</li> <li>iv) one regular BCGEU staff member from the Faculty, appointed by the BCGEU</li> <li>v) one excluded employee from the Faculty, appointed by the Chair</li> <li>vi) one Dean or Associate Dean from another Faculty appointed by the Provost</li> </ul>
University Librarian, University Registrar	<p>The SAC shall be chaired by the Provost and Vice President, Academic for the University Librarian and the Vice President, Students for the University Registrar and may consist of a combination of the following:</p> <ul style="list-style-type: none"> <li>i) five regular faculty members, two of whom are appointed by the KFA and three appointed by the Senate to ensure broad representation</li> <li>ii) one librarian</li> <li>iii) one student, preferably a Senator, appointed by Senate</li> <li>iv) one student appointed by the Kwantlen Student Association.</li> <li>v) one regular BCGEU staff member preferably selected from the relevant functional area, appointed by the BCGEU</li> <li>vi) one excluded employee, preferably from the relevant functional area, appointed by the Chair</li> <li>vii) one senior administrative officer of the institution, appointed by the Chair</li> <li>viii) one Dean appointed by the Provost</li> </ul>

Policy History
<b>Policy No.</b> HR22
<b>Approving Jurisdiction:</b> Board of Governors
<b>Administrative Responsibility:</b> Board of Governors
<b>Effective Date:</b>

## Presidential Search Advisory, Appointment and Re-Appointment Policy

### A. CONTEXT AND PURPOSE

This Policy and its related Procedure are intended to outline the principles and procedures which will be used by KPU in the selection, appointment, and re-appointment of the presidential position within KPU. It complements and supports KPU's Employment Equity Policy and Procedure (HR16).

Section 27 (2) (g) of the University Act outlines the powers of the Board which include the power "...to appoint the president of the university...and the officers and employees the board considers necessary for the purpose of the university, and to set their salaries or remuneration, and to define their duties and their tenure of office or employment".

### B. SCOPE AND LIMITS

This Policy and its related Procedure outlines the principles and procedures for the selection and appointment of candidates for the President of KPU and aligns with Board policy as found in the Board Governance Manual.

### C. STATEMENT OF POLICY PRINCIPLES

1. **Talent:** KPU will hire talented individuals who have the qualifications required to be successful and excel in the position and work environment.
2. **Values:** every position at KPU is key to our ability to achieve our shared institutional vision. Each time we hire an employee, we are given a chance to enhance this community and support and advance the student experience. KPU will hire individuals who demonstrate that they can successfully work in support of these values and shared practices. Candidates should display how they can positively integrate into KPU's culture and work values.
3. **Diversity and Representation:** KPU will uphold its commitment to diversity and inclusion through providing training for search committee members related to unconscious biases and how to combat them when recruiting and hiring qualified candidates. Fair, legal, inclusive, and effective hiring practices that support and comply with KPU policies and procedures in a way that is mindful of culture, diversity, and inclusion will form the foundation of each search. As reasonably possible, efforts for diverse representation and diversity of thought will be

considered when appointing individuals to a Search Advisory Committee (SAC). Support and guidance can be provided by KPU's Office of Equity and Inclusive Communities, as needed.

4. **Equity:** KPU will apply equitable processes for the selection, appointment, and reappointment of both external and internal candidates for administrative roles, and will take steps to mitigate barriers within hiring processes. Hiring decisions are to be objective, impartial, and free of personal bias.
5. **Due Process:** KPU will act in a timely manner towards the selection and appointment of administrative positions while abiding by required processes and upholding policy principles.
6. **Confidentiality:** KPU will ensure that only those involved in the selection, appointment, and reappointment process will have access to candidate information during the related processes, and will comply with KPU's obligations under the Freedom of Information and Protection of Privacy Act of BC.

## D. DEFINITIONS

Refer to Section A of HR22 *Presidential Search Advisory, Appointment and Re-Appointment Procedure* for a list of definitions in support of this Policy.

## E. RELATED POLICIES & LEGISLATION

*University Act*

*Board Governance Manual*

*Freedom of Information and Protection of Privacy Act, R.S.B.C 1996, Ch 165*

*HR1 Conflict of Interest*

*HR11 Search Advisory and Appointment of Administrative Positions*

*HR16 Employment Equity*

*HR20 Search Advisory, Appointment and Re-Appointment of Senior Academic Administrator Positions*

*HR25 Search Advisory and Appointment of Senior Administrative Positions*

*HR26 Responsibilities and Compliance Requirements for the Appointment and Termination of Administrative Staff*

*IM2 Freedom of Information*

*IM4 Confidentiality*

*IM8 Privacy*

*Terms and Conditions of Employment for Administrative Employees*

## F. RELATED PROCEDURES

*HR22 Presidential Search Advisory, Appointment and Re-Appointment*

Policy History
<b>Policy No.</b> HR22
<b>Approving Jurisdiction:</b> Board of Governors
<b>Administrative Responsibility:</b> Board of Governors
<b>Effective Date:</b>

## Presidential Search Advisory, Appointment and Re-appointment Procedure

### A. DEFINITIONS

1. **Candidate Profile:** Outlines the position, the desired education, knowledge, experience, abilities and traits that the ideal candidate should possess in order to successfully perform in the role, as well as an overview of Kwantlen Polytechnic University (KPU), search process and other factors the candidate might want to consider in determining whether or not to apply. Candidate profiles are created by Human Resources or an external search consultant (when used).
2. **Key Party:** Individuals identified with whom the potential candidate might directly or indirectly work with such as a one-up-supervisor, direct report, and/or peer. Key party members will uphold the values of KPU to provide a safe, welcoming and inclusive environment for the candidate and will participate in key party meetings with full attention.
3. **President:** means the president of KPU who is to be the chief executive officer and must generally supervise and direct the academic work of KPU. The President has overall responsibility for leading and managing KPU through the development and implementation of strategies and policies, and efficient and effective operations.
4. **Pro Tem:** Acting positions; in a position temporarily.
5. **Search Advisory Committee (SAC):** For the purpose of this policy, a committee established for the presidential search process.

### B. PROCEDURES

1. Search Advisory Committee

- a. The SAC shall familiarize themselves with the job description located within the Board Governance Manual in order to assess candidate suitability. The role of the SAC will be to participate in the search process and to interview and recommend appropriate candidates for the role of the President.
- b. The SAC will be appointed according to Appendix A – Composition of Search Advisory Committee.
- c. The Board will develop and approve the Terms of Reference for the SAC.
- d. The SAC will be bound by the following regulations:
  - i. In advance of the posting of a new appointment, the members of the SAC will be appointed according to the Appendix to this Procedure. The Collective Agreement between Kwantlen Polytechnic University (KPU) and the Kwantlen Faculty Association (KFA) will be followed for the appointment of KFA representatives to the SAC.
  - ii. SAC members shall disclose any conflicts of interest with applicants and may be excused if the conflict cannot be mitigated. SAC members will be required to sign a Confidentiality Agreement prior to participation in their first search.
  - iii. Before the SAC is announced, potential members of the SAC must agree, as a condition of membership, that they will not be candidates for the position under consideration.
  - iv. The Board has the authority to substitute members of the SAC if one of them should declare their candidacy for President.
  - v. Faculty appointed by the Senate will be based on recommendations from the Senate Governance and Nominating Committee in consultation with each Faculty Council to ensure appropriate representation, taking into account Faculty representatives appointed by the KFA. Other appointments are made according to the Appendix.
  - vi. The membership of the SAC, once established, will be made public to the KPU community by the SAC Chair as defined in the Appendix.
  - vii. If a SAC member must resign their position, where possible, replacements will come from a similar constituency. Replacements may not be made after the start of interviews.
  - viii. All proceedings of the SAC and all communication to and from the SAC shall be held in strictest confidence, and all members of the SAC will comply with their obligations under related legislation and KPU policies, both during the term of the SAC and thereafter. Only the SAC Chair is authorized to release information about the proceedings of the SAC. Any SAC member who fails to comply with the requirement of confidentiality will be discharged from membership of the SAC and may also be subject to disciplinary action.

## **2. Term Limits**

- a. The President will normally be appointed for a five (5) year term. Normally, the position can be renewed for one or more additional five year terms after a review undertaken according to Section 3 below.

### 3. Renewal of Appointments

- a. When the presidential position is being considered for renewal, the Board will establish a SAC with a composition determined by Appendix A of this Procedure to recommend on their reappointment.
- b. The SAC will inform the KPU community that a review of the incumbent will be conducted and invite submissions, as the SAC shall deem appropriate.
- c. After it reviews the incumbent, the SAC will determine whether it will recommend reappointment of the incumbent.
- d. The SAC Chair will make a written recommendation to the Board based on the advice of the SAC.
- e. The Board will inform the SAC if its recommendations are not accepted or followed.
- f. If the incumbent is not reappointed, the Board will determine next steps.

### 4. The Search Process: the search process are the procedures that the SAC will follow to select, appoint, or re-appoint candidates. The search process will honour the Policy principles.

- a. A general (internal and external) search will be conducted. The search process for the position will be designed to seek an appropriate level of interest and response.
- b. The Board will determine if an external executive search firm will be used.
- c. The Board, in consultation with the SAC, as well as through community consultations, will develop the candidate profile. Care will be taken to ensure that biases and barriers are not embedded within the candidate profile.
- d. The Senate will review the candidate profile, providing advice and a recommendation to the Board.
- e. The Board, along with the external executive search firm, if used, will finalize the candidate profile based on the consultation with the SAC and the public. Candidates will be assessed against the candidate profile by the SAC and ultimately, the Board, in reaching a decision about the appointment of the next President of KPU.
- f. The Board and Senate will agree on the candidate profile.
- g. The position will be widely advertised both internally and externally as determined by the Board.
- h. Applications will be made in confidence to the SAC. The SAC will determine early in its process if the names of shortlisted candidates will be made public to the KPU community. Decisions will be communicated to the shortlisted candidates, including providing the candidates with notice that their names will be public.
- i. If a SAC member is absent from any of the interviews, normally they will not participate in further interviews, deliberations or recommendations to the SAC Chair. Exceptions may be made by the SAC Chair in consultation with Human Resources.
- j. Alongside the executive search firm, if applicable, the SAC will:
  - i. Receive and assess applications and nominations;

- ii. Establish the long list of candidates followed by the further assessment of candidates on the long list;
- iii. Establish the short list of candidates (up to six candidates) who will be invited for interviews;
- iv. Assess the interviewed candidates relative to the candidate profile and determine if more interviews are necessary;
- v. Advise the SAC Chair as a representative of the Board if the SAC determines that no candidates meet the candidate profile when identifying the final short list of candidates. The SAC Chair will then communicate with the full Board, as needed.
- vi. The SAC may invite the short-listed candidates to meet with various Key Parties. The SAC Chair, in consultation with Human Resources, will determine a mechanism to provide feedback on candidates. The feedback will be shared with the SAC and the Board.
- vii. Identify a final short list of not more than three candidates and return these to the Board. The SAC will be discharged of its responsibilities at this point;
- k. In the event that the SAC feels that it must refine the candidate profile it will return this question to the Board for consultation, guidance and approval.
- l. The Board will:
  - i. Consider/interview the candidates on the final list and ensure reference and background checks are conducted;
  - ii. Upon receipt of the background check report, determine its final choice for President; and
  - iii. Re-constitute a search if the Board determines that none of the candidates on the final short list are suitable for the position.
- m. The Board's final decision, offer of appointment, contract negotiations, acceptance, determination of a start date, identification of transitional time period and steps will represent the concluding step in the presidential search/appointment process.
- n. Public announcements will follow the decision of the Board and will be determined by the Board.

## **5. Post Search Process**

- a. Negotiations of all terms of employment, employment agreements and verbal and written letters of offers will be handled as outlined in KPU's Policy HR26.

## **6. Appointment to a Pro Tem Position**

- a. The Board will, in consultation with the Senate, identify one or more qualified personnel who may be asked to assume the role of President pro tem.
- b. The Board will appoint a President pro tem when a sitting President, for whatever reason, is unable to fulfill their duties, and/or to fulfill these duties during a presidential search.



- c. Those appointed in a pro tem capacity will not be eligible to apply for the position they are temporarily filling without the express permission of the Board.
- d. The Board may choose the mechanism to make a pro tem appointment.

## **C. RELATED POLICY**

Refer to Policy HR22 *Presidential Search Advisory, Appointment and Re-appointment*

DRAFT

	<b>Appendix A: Composition of Search Advisory Committee</b>
President	<p>The SAC shall be chaired by the Chair, Board of Governors (the “SAC Chari”) and shall consist of:</p> <ul style="list-style-type: none"> <li>i) Chair, Board of Governors Human Resources Committee</li> <li>ii) Three government-appointed Board Members, one of whom shall be an Alumni representative</li> <li>iii) Senate Vice Chair</li> <li>iv) Three regular faculty members appointed by the Kwantlen Faculty Association and three regular faculty members-at-large appointed by Senate. To the greatest extent possible by these 6 appointees, all Faculties should be represented.</li> <li>v) Two regular BCGEU staff members, appointed by the BCGEU</li> <li>vi) Two Deans, appointed by the Provost</li> <li>vii) Provost &amp; Vice President, Academic</li> <li>viii) Three students, appointed by the Board</li> <li>ix) Chair, Kwantlen Polytechnic University Foundation</li> </ul> <p><i>Staff Resources to the SAC:</i>  University Secretary  Vice President, Human Resources  Director, Communications and Media Relations  President</p>

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## BOARD OF GOVERNORS - REGULAR MEETING

**Agenda Number:** 8.2

**Meeting Date:** January 31, 2024

**Presenter(s):** Chervahun Emilien

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**AGENDA TITLE:** FISCAL 2024-25 DRAFT UNIVERSITY BUDGET

**ACTION REQUESTED:** Motion

### RECOMMENDED RESOLUTION

**THAT the Board of Governors approve the draft FY2024-25 consolidated budget, as recommended by the Board Finance Committee.**

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### COMMITTEE REPORT

For Secretariat Use Only

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#### Context and Background

**University Act, Section 62(2):** *The president must prepare and submit to the board an annual budget in consultation with the appropriate standing committee of the senate.*

Presentation of the draft consolidated budget for fiscal 2024-25 is being put forth to the Board of Governors for approval.

#### Key Messages

1. As per the fiscal 2024-25 Budget Principles and Priorities, the proposed budget will focus on student success, support of KPU's core activities and will be balanced. The proposed budget is also aligned with Vision 2026.
2. KPU's ability to adhere to the proposed budget includes assumptions around achieving specific international student enrollment targets and realizing its associated impact on international tuition revenue. This assumption has been continually reviewed throughout the budget process and will be revisited at stable enrolment date for Spring 2024 before finalizing the draft budget.
3. The draft 2024-25 budget proposes increases from the prior year of approximately \$23 million in revenues and \$23 million in expenses when compared to the Fiscal 2023-24 Budget, which included increases of \$27 million in revenues and \$27 million in expenses from fiscal 2023.

**Resource Requirements**

N/A

**Implications/Risks**

N/A

**Consultations**

1. Polytechnic University Executive
2. KFA Union
3. Senate Standing Committees on Academic Planning and Priorities and on University Budget
4. President's Circle
5. Board Finance Committee
6. Senate

**Attachments**

1. Fiscal 2024-25 Draft Consolidated Budget Presentation
2. Appendix 1 – Fiscal 2024-25 Draft Consolidated Budget
3. Appendix 2 – Fiscal 2024-25 Draft Capital Consolidated Budget
4. Supplemental Budget Information

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**Submitted by**

Chervahun Emilien, Chief Financial Officer

**Date submitted**

January 24, 2024

# **Fiscal 2024-25 Budget Presentation**

**Polytechnic University Executive**

**KFA Union**

**SSCUB/SSCAPP**

**President's Circle**

**Board Finance Committee**

**Senate**

**Board of Governors**



# Budget Development Approach

- [Fiscal 2024-25 Budget Principles and Priorities](#)
- KPU's strategic priorities:
  - Vision 2026

# General Approach and Assumptions

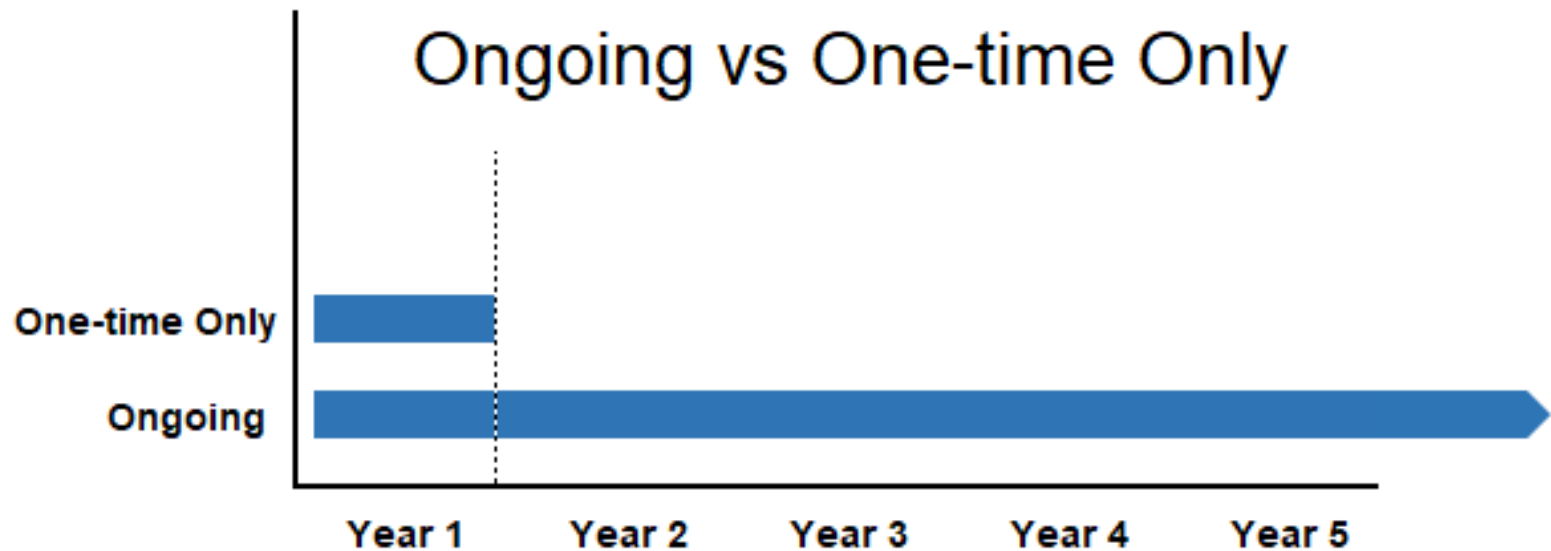
- Increases in Operating Grant
- Decline in “New” International enrolment
- Status quo Domestic enrolment
- Investment and Interest income

# General Approach and Assumptions

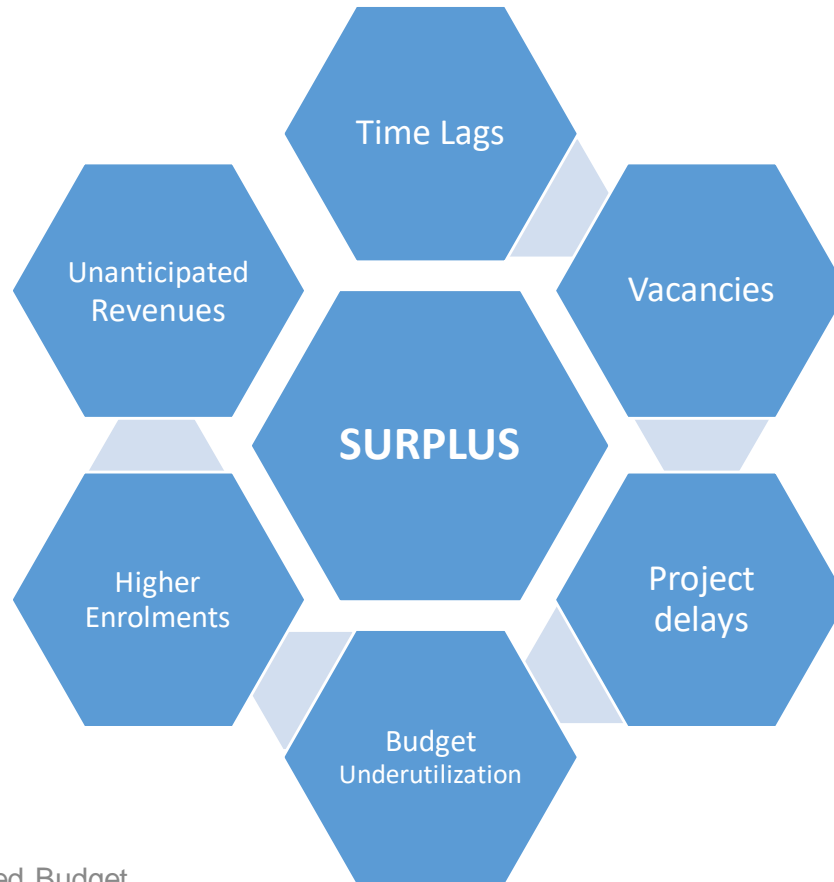
- Shared Recovery Mandate and Collective Agreement increases in expenditures
- Roll-over divisional budgets
- Contingency considers risk in both revenues and non-salary expenses



# Budget Room – Available New Dollars

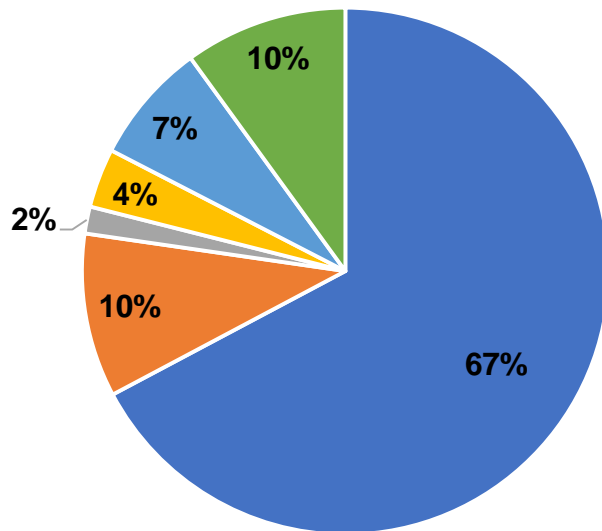


# Why Do We Have Budget Surpluses?

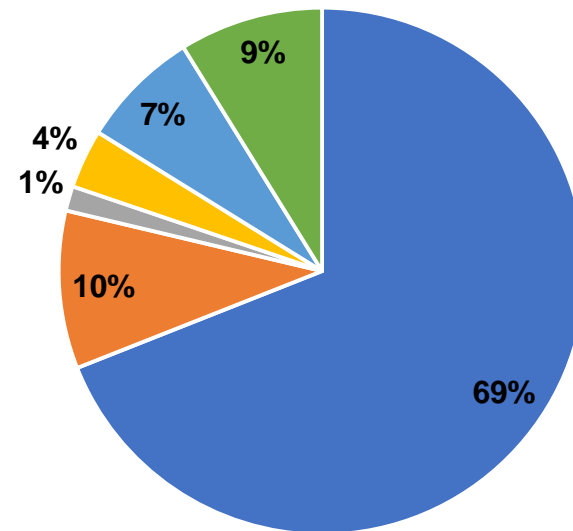


# Overall Budget Comparison

Fiscal 2023-24 Budget  
Expenditure Breakdown



Fiscal 2024-25 Budget  
Expenditure Breakdown



■ Salaries and Benefits

■ Other Non-salary Expenditures

■ Repairs and Maintenance

■ Software & Subscriptions

■ Amortization

■ Fees and Services

Fiscal 2024-25 Draft Consolidated Budget

# Overall Changes - Revenues

## Fiscal 2024-25 Proposed Budget – Revenues in \$'000

				FY 2024-25 Budget to FY 2023-24 Base Budget	
Account Group	Account Type	FY 2023-24 Annual Base Budget	FY 2024-25 Proposed Budget	\$	%
<b>Revenue</b>	Operating Grant	88,834	103,132	14,298	16%
	Grants	261	261	-	0%
	Amort of Deferred Contributions	6,572	7,777	1,205	18%
	Tuition Fees-Domestic	35,433	37,347	1,914	5%
	Tuition Fees-International	123,921	118,836	(5,085)	(4%)
	Student Fees	10,429	10,905	476	5%
	Applic and Other Fees-Domestic	649	761	112	17%
	Applic and Other Fees-International	1,906	1,564	(342)	(18%)
	Tuition - Non-Credit	1,005	940	(65)	(6%)
	Contract Services	210	200	(10)	(5%)
	Shop Income	510	338	(172)	(34%)
	Investment & Interest Income	3,560	11,030	7,470	210%
	Bookstores Income	2,180	2,180	-	0%
	Parking Income	681	905	224	33%
	Ancillary Commission Income	188	188	-	0%
	Amortization of Capital Contributions	11,649	14,711	3,062	26%
	Other income	1,791	1,937	146	8%
<b>Revenue Total</b>		<b>289,779</b>	<b>313,012</b>	<b>23,233</b>	<b>8%</b>

# Overall Changes - Expenses

## Fiscal 2024-25 Proposed Budget – Salaries in \$'000

Account Group	Account Type	FY 2023-24 Annual Base Budget	FY 2024-25 Proposed Budget	\$	%
Salaries	Salaries-Faculty	85,733	95,059	9,326	11%
	Salaries-GEU Staff	35,982	39,661	3,679	10%
	Salaries-Admin	29,956	32,367	2,412	8%
	Salaries-Other	4,688	5,348	660	14%
	Benefits	38,471	43,562	5,091	13%
<b>Salaries and Benefits Total</b>		<b>194,830</b>	<b>215,997</b>	<b>21,167</b>	<b>11%</b>
<b>Benefits as a % of Salaries</b>		24.6%	25.3%		

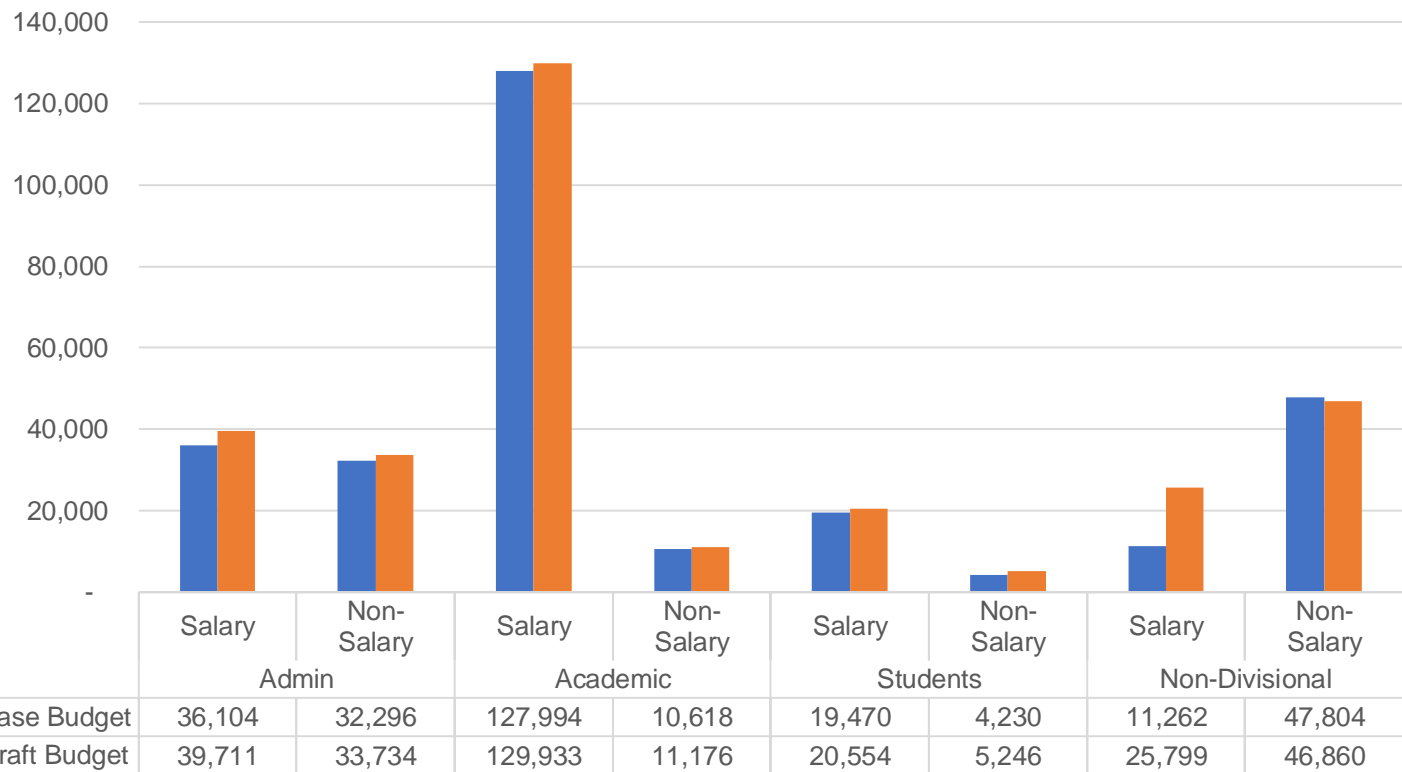
# Overall Changes - Expenses

## Fiscal 2024-25 Proposed Budget – Non- Salary Expenditures in \$'000

				FY 2024-25 Budget to FY 2023-24 Base Budget	
Account Group	Account Type	FY 2023-24 Annual Base Budget	FY 2024-25 Proposed Budget	\$	%
Non-salary Expenditures	Supplies	5,233	5,358	125	2%
	Repairs and Maintenance	4,788	4,740	(48)	(1%)
	Software and Subscriptions	10,542	11,306	764	7%
	Contracts	1,992	2,117	125	6%
	Leases/Rentals	712	718	6	1%
	Travel and PD	4,026	4,456	430	11%
	Student Awards	3,663	4,121	458	13%
	Utilities	2,513	2,549	36	1%
	Communications	1,624	1,698	74	5%
	Fees and Services	28,973	27,632	(1,341)	(5%)
	Transfers to Third Parties	2,000	-	(2,000)	100%
	Cost-of-Sales	1,563	1,563	-	0%
	Contingency	5,812	7,765	1,953	34%
<b>Non-salary Expenditures Total</b>		<b>73,441</b>	<b>74,023</b>	<b>582</b>	<b>1%</b>
Amortization	Amortization of Capital Assets	21,508	22,992	1,484	7%
<b>Net income (loss)</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>0%</b>

# Overall Changes - Expenses

**Budget Allocation Comparison (Fiscal 2023-24 vs Fiscal 2024-25)**



Fiscal 2024-25 Draft Consolidated Budget

# Proposed Allocations Academic Portfolio

Faculty of Academic and Career Preparation ~\$80K

- Academic Upgrading Advisor

Faculty of Arts ~\$416K

- Operational support
- Additional Faculty FTE to support demand
- Indigenous artist, writer or Knowledge Keeper

Melville School of Business ~\$324K

- Operational support

Wilson School of Design ~\$80K

- Operational support



# Proposed Allocations Academic Portfolio

## Faculty of Science ~\$181K

- Hop Genomics Lab support
- Lab support

## Faculty of Trades and Technology ~\$76K

- Program Support

## Library Resources ~\$146K

- Research Data Management Strategy Librarian

## Teaching and Learning ~\$30K

- Syllabus technology solution

# Proposed Allocations Academic Portfolio

Research and Innovation~\$81K

- Operational support

Office of the VP Academic, Provost ~\$403K

- Operational support

# Proposed Allocations Students Portfolio

## Student Affairs ~\$2.2M

- Operational support
- Support for students including enhancements to KPU's need-based financial aid bursary program, and peer mentor programming

## International Education ~\$1.2M

- Student scholarship and relief funds
- Inflationary budget increases

## Office of the Registrar ~\$105K

- Operational support

# Proposed Allocations

## Equity & Inclusive Communities Portfolio

Office of the VP, Equity & Inclusive Communities  
~\$800K

- Ongoing operating budget

# Proposed Allocations Administration Portfolio

## Facilities and Ancillary Services ~\$1.1M

- Support positions
- Inflation and contractual increases

## Information Technology ~\$172K

- Information Security Manager

## Marketing and Communications ~\$81K

- Support positions

# Proposed Allocations External Affairs Portfolio

Advancement~\$161K

- Support positions

Alumni Affairs ~\$26K

- Operational support

# Proposed Allocations Finance Portfolio

## Financial Services ~\$560K

- Operational support

# Proposed Allocations

## Human Resources Portfolio

### Human Resources ~\$1.3M

- Operational and employee support
- Non-salary budget to support several high priority university-wide projects

### Campus Safety and Security ~\$1.2M

- Increases to physical security and inflationary increases



# Proposed Allocations President Portfolio

## Office of Planning and Accountability ~\$151K

- Operational support
- Support for data warehouse and Feedback dashboard

## Indigenous Leadership, Innovation and Partnerships ~\$100K

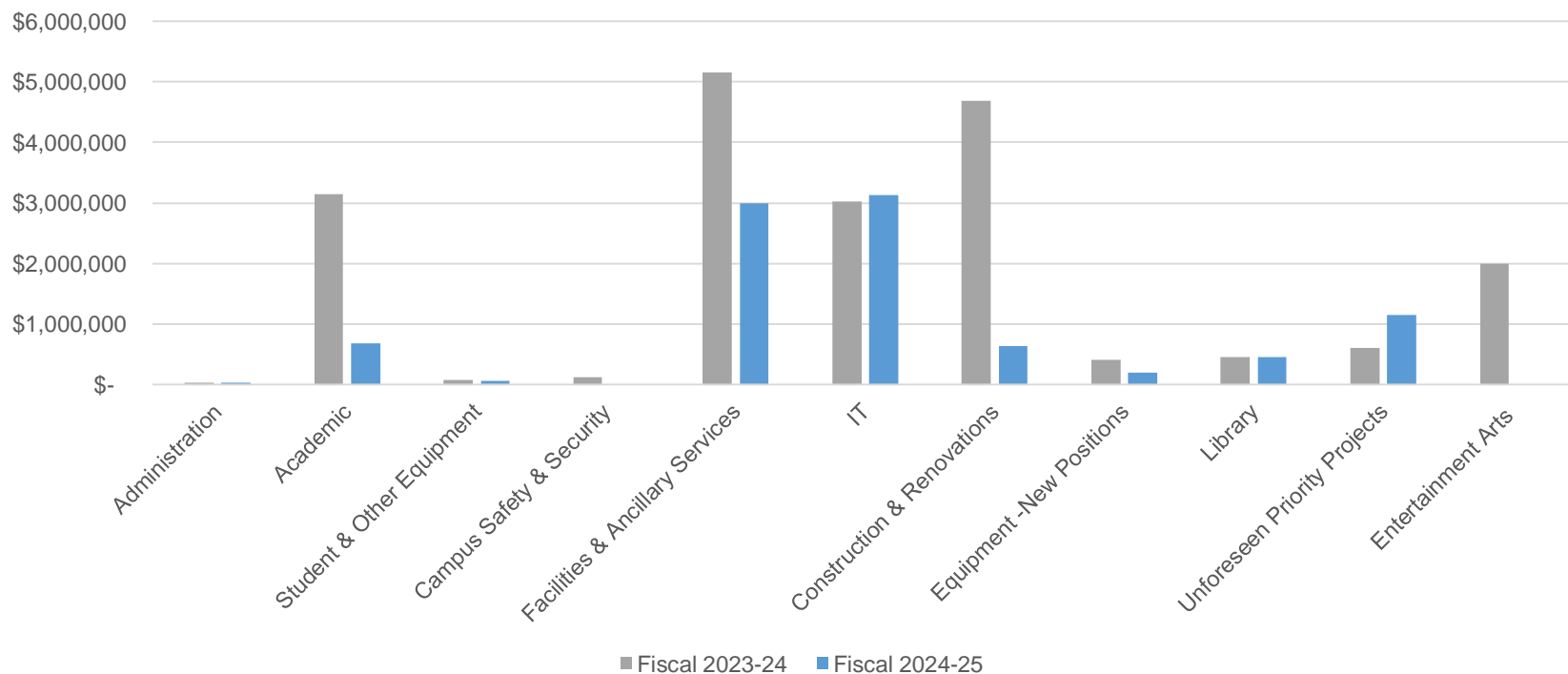
- Operational support

## Office of the President ~\$358K

- Operational support for Communications team
- Strategic initiatives funding

# Capital Budget Allocations

**Preliminary Fiscal 2024-25 Capital Budget  
vs. Fiscal 2023-24 Capital Budget**



Fiscal 2024-25 Draft Consolidated Budget

# Next Steps

## **Fiscal 2024-25 - Draft Budget presentations:**

- Polytechnic University Executive – December 14
- Kwantlen Faculty Association (KFA) – December 15
- SSCAPP/SSCUB – January 5
- President's Circle – January 10
- Board Finance Committee – January 16
- Senate – January 22
- Board of Governors – January 31 (motion for approval)

# Questions



Kwantlen Polytechnic University

Appendix 1 - Fiscal 2024-25 Draft Consolidated Budget

Summary - By Account Type

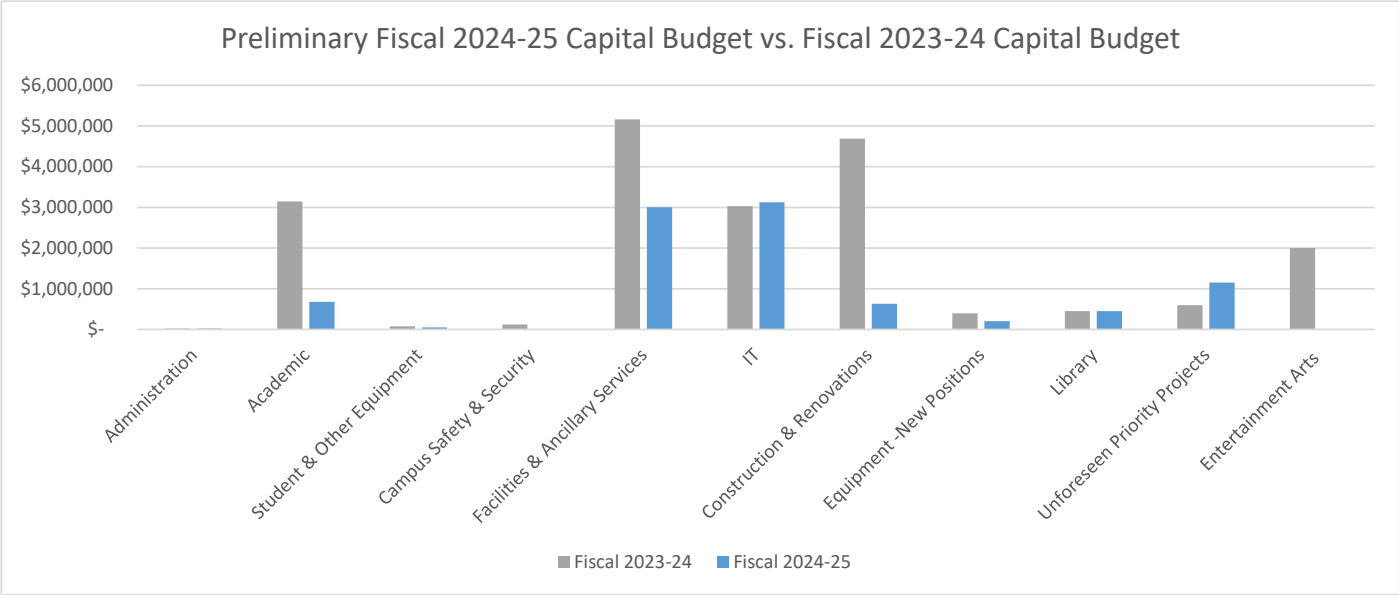
In \$'000

				FY 2024-25 Budget to FY 2023-24 Base Budget	
Account Group	Account Type	FY 2023-24 Annual Base Budget	FY 2024-25 Proposed Budget	\$	%
Revenue	Operating Grant	88,834	103,132	14,298	16%
	Grants	261	261	-	0%
	Amort of Deferred Contributions	6,572	7,777	1,205	18%
	Tuition Fees-Domestic	35,433	37,347	1,914	5%
	Tuition Fees-International	123,921	118,836	(5,085)	(4%)
	Student Fees	10,429	10,905	476	5%
	Applic and Other Fees-Domestic	649	761	112	17%
	Applic and Other Fees-International	1,906	1,564	(342)	(18%)
	Tuition - Non-Credit	1,005	940	(65)	(6%)
	Contract Services	210	200	(10)	(5%)
	Shop Income	510	338	(172)	(34%)
	Investment & Interest Income	3,560	11,030	7,470	210%
	Bookstores Income	2,180	2,180	-	0%
	Parking Income	681	905	224	33%
	Ancillary Commission Income	188	188	-	0%
	Amortization of Capital Contributions	11,649	14,711	3,062	26%
	Other income	1,791	1,937	146	8%
Revenue Total		289,779	313,012	23,233	8%
Salaries	Salaries-Faculty	85,733	95,059	9,326	11%
	Salaries-GEU Staff	35,982	39,661	3,679	10%
	Salaries-Admin	29,956	32,367	2,412	8%
	Salaries-Other	4,688	5,348	660	14%
	Benefits	38,471	43,562	5,091	13%
Salaries and Benefits Total		194,830	215,997	21,167	11%
Benefits as a % of Salaries		24.6%	25.3%		
Non-salary Expenditures	Supplies	5,233	5,358	125	2%
	Repairs and Maintenance	4,788	4,740	(48)	(1%)
	Software and Subscriptions	10,542	11,306	764	7%
	Contracts	1,992	2,117	125	6%
	Leases/Rentals	712	718	6	1%
	Travel and PD	4,026	4,456	430	11%
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	Utilities	2,513	2,549	36	1%
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	Cost-of-Sales	1,563	1,563	-	0%
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Non-salary Expenditures Total		73,441	74,023	582	1%
Amortization	Amortization of Capital Assets	21,508	22,992	1,484	7%
Net income (loss)		-	-	-	0%

Kwantlen Polytechnic University

Appendix 2 - Fiscal 2024-25 Draft Capital Allocation Budget

Preliminary Capital Budget



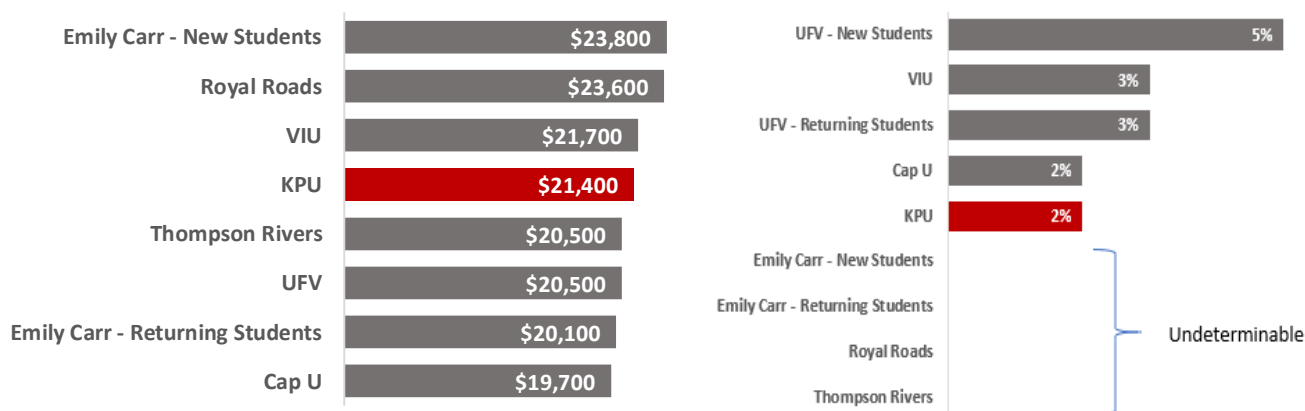
Preliminary Fiscal 2024-25 Capital Budget vs. Fiscal 2023-24 Capital Budget

	Fiscal 2023-24	Fiscal 2024-25	Fiscal 2024-25 Allocation Details
Administration	\$ 25,000	\$ 25,000	Equipment as required for Duty to Accommodate.
Academic	3,142,248	679,782	Academic capital project and equipment priorities, capital renewal, and emergency requests.
Student & Other Equipment	78,500	52,500	Capital equipment & furniture purchases to support student experience as well as Indigenous Flagpoles
Campus Safety & Security	125,000	-	
Facilities & Ancillary Services	5,160,450	3,000,500	KPU's contribution towards Ministry funded capital maintenance projects, as well as the refresh allocation for University-wide furniture and equipment.
IT	3,028,000	3,127,000	Refresh allocation for laptops, desktops, and AV equipment. In addition to refreshing assets, the allocation includes Wi-Fi end of life replacement.
Construction & Renovations	4,690,000	633,750	Institutional wide priority construction including larger capital projects that normally fall under the Ministry funded routine capital (Surrey Underground loop, continuation of Rick Hansen Accessibility Audits, Washroom upgrades, AV Events Hardware, Richmond Wheelchair ramp, KPU Tech Interior Power Doors, Richmond concourse accessibility ramp modernization and Western Entrance improvements) along with Communication Room Recabling and Upgrades,
Equipment -New Positions	400,000	200,000	Equipment (laptops) for net new positions.
Library	451,000	451,000	Annual refresh of Library capital assets.
Unforeseen Priority Projects	600,000	1,150,000	Discretionary allocation for strategy priority projects and emergent needs.
Entertainment Arts	2,000,000		
<b>Total</b>	<b>\$ 19,700,198</b>	<b>\$ 9,319,532</b>	

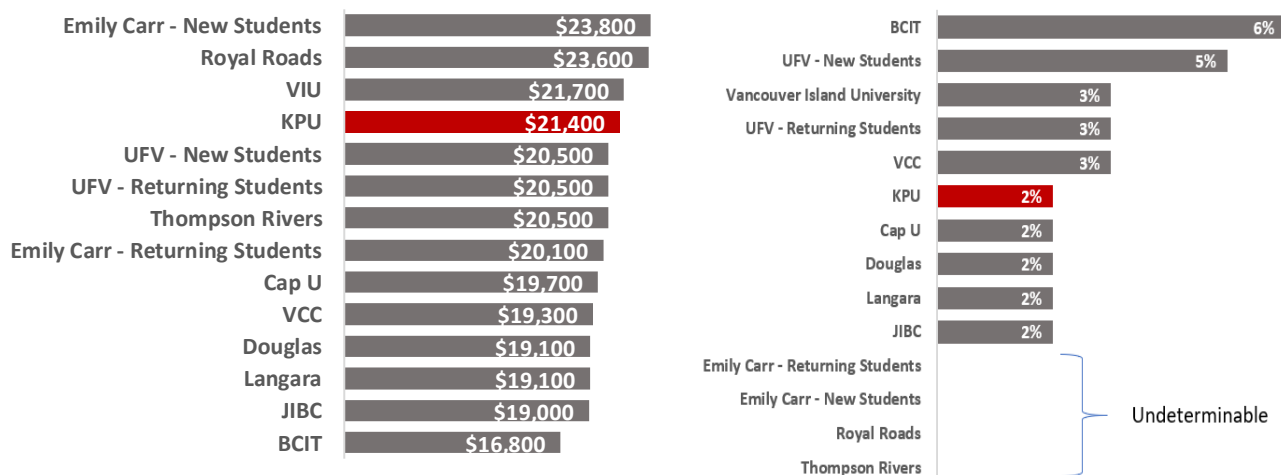
## International Students Tuition Fee Comparison to Peer Group – 2023/24

The graphs below are based on a recent peer group review, and reflect international student tuition fees for two terms at a full course load equaling 30 credits at 2023/24 rates, and proposed or actual increases to 2024/25. Business degrees (universities), business diplomas (colleges) or general undergraduate degree fees / per credit fees were used to ensure comparability.

The following graphs include all teaching universities in British Columbia, reflecting an average tuition for 2023/24 of \$21,400. As shown in the graph, KPU is at the average for 2023/24 tuition fees, and in the bottom tier for 2024/25 fee increases.



The following graphs include the teaching universities above and PSI's in the Mainland / Southwest region of B.C., including the Greater Vancouver area, the Fraser Valley and the Sunshine Coast, and north to Whistler, Pemberton and Lillooet. The Mainland / Southwest region group is included as these institutions are considered potential competitors in some areas. The graphs indicate that KPU, similar to the majority of B.C.'s teaching universities, is slightly above the average of \$20,400 for 2023/24 tuition fees, and among the lowest for 2024/25 fee increases.



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## BOARD OF GOVERNORS - REGULAR MEETING

**Agenda Number:** 8.3

**Meeting Date:** January 31, 2024

**Presenter(s):** Chervahun Emilien

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**AGENDA TITLE:** FY2024 REVISIONS TO BYLAW NO. 4 FEES

**ACTION REQUESTED:** Motion

### RECOMMENDED RESOLUTION

**THAT the Board of Governors approve the revisions to Bylaw No. 4, Fees, as presented and recommended by the Board Finance Committee.**

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### COMMITTEE REPORT

For Secretariat Use Only

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#### Context and Background

**University Act, Section 27(1):** The management, administration and control of the property, revenue, business and affairs of the university are vested in the board.

**University Act, Section 27(2)(m):** Without limiting subsection (1) or the general powers on the board by this Act, the board has the following powers:

To set, determine and collect the fees

- (i) to be paid for instruction, research and all other activities in the university,
- (ii) for extramural instruction,
- (iii) for public lecturing, library fees, and laboratory fees,
- (iv) for examinations, degrees and certificates,
- (v) for the use of any student or alumni organization in charge of student or alumni activities, and
- (vi) for the building and operation of a gymnasium or other athletic facilities;

**Board of Governors Manual, Section 14:** The Finance Committee reviews and makes recommendations to the Board in respect of setting, determining and collecting fees as provided by the *University Act*.



Bylaw 4 is revised on an annual basis to reflect annual increases and changes to fees.

### **Key Messages**

1. Bylaw 4 reflects a raise in domestic tuition by 2%; the maximum allowed by the provincial government under the Tuition Limit Policy. Although this policy does not apply to international student tuition, increases were held at 2% for international tuition as well.
2. Key changes to Bylaw 4 include the addition and fees of two new programs recently approved by the Board of Governors, a change in the structure of the document to create a framework to seamlessly incorporate graduate level programs and fees as they are approved, and further formatting and wording changes to improve the readability and consistency of the document.

### **Resource Requirements**

N/A

### **Implications/Risks**

N/A

### **Consultations**

1. Office of the Vice President, Academic
2. Office of Planning and Accountability
3. Office of the Registrar

### **Attachments**

1. FY2024 Draft Bylaw No. 4, Fees
2. FY2024 Draft Bylaw No. 4, Fees (track changes)

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### **Submitted by**

Chervahun Emilien, Chief Financial Officer

### **Date submitted**

January 9, 2024

Bylaw History
<b>Bylaw No.</b> 4
<b>Approving Jurisdiction:</b> Board of Governors
<b>Original Effective Date:</b> November 16, 1982
<b>Revised Date:</b> January 31, 2024

## Bylaw No. 4

### Fees

- Pursuant to the *University Act*, program or course fees and charges to be paid to the University by students shall be determined and/or revised by the Board of Governors. The rates effective September 1, 2024 are included below.
- Tuition fee structure for domestic students<sup>1</sup>
  - Credit based programs, excluding graduate level programs:

Category	\$ / credit	
1	\$159.65	<ul style="list-style-type: none"> <li>Existing courses as at September 1, 2011 will remain in Category 1.<sup>2</sup></li> <li>Accessible Education and Training courses.</li> </ul>
2	\$192.91	<ul style="list-style-type: none"> <li>Education Assistant Program courses.</li> <li>New courses developed for degrees/programs in Faculties such as Business and Arts.</li> </ul>
3	\$215.48	<ul style="list-style-type: none"> <li>Bachelor of Design, Product Design courses.</li> <li>New courses developed for programs that incorporate smaller classes, labs, and/or studios, e.g. Design, Science, Horticulture and Health.</li> </ul>
4	\$246.61	<ul style="list-style-type: none"> <li>Health Unit Coordinator courses.</li> <li>New online courses developed for degrees/programs and other specialized programs.</li> <li>Diploma in Front-End Development for Interactive Application courses.</li> </ul>

<sup>1</sup> Courses eligible as “new” for the purposes of this Bylaw (including courses designated as online) are courses assigned newly designated subject codes accompanying Ministry-approved programs not previously offered by KPU. New courses approved by Senate that bear a pre-existing subject code are not considered “new” for the purposes of this Bylaw (unless they are being newly classified at a different academic level).

<sup>2</sup> With the exception of the Health Unit Coordinator and Education Assistant Programs.



e. Credit based graduate level programs:

Category	\$ / credit	
1	\$402.03	<ul style="list-style-type: none"> <li>Graduate Diploma in Business Administration-Green Business courses.</li> <li>Graduate Diploma in Business Administration-Global Business courses.</li> </ul>
2	\$639.35	<ul style="list-style-type: none"> <li>Graduate Certificate in Sustainable Food Systems and Security courses.</li> </ul>

3. Other fees and charges for domestic students:

a. Student fees for libraries, technologies and student life	7% of tuition
b. Application fee	\$40.00 No charge for self-declared Aboriginal applicants
c. Transcript fee	\$10.00 per transcript
d. Appeals	\$15.00
e. Confirmation deposit	Domestic applicants are required to remit a non-refundable \$250.00 confirmation deposit to signify acceptance of an offer of admission to open intakes and a \$500.00 confirmation deposit to signify acceptance of an offer of admission to a limited intake program.  If the student registers this fee will be applied towards the full tuition fees assessment, thereby reducing the total fees owing.
f. Graduation fee	No charge

4. Prior Learning Assessment and Recognition (PLAR):

- Students receiving PLAR credit awarded for individual course(s) will be charged the domestic rate of tuition based on the fee category for the assigned course.
- Students receiving PLAR credit(s) as a result of a competency-based assessment will be charged an assessment fee of \$750 or the cost associated with the resulting credit at the domestic rate of tuition based on the fee category for the assigned course(s), or whichever is the lesser of the two.
- Students receiving PLAR credit for coursework previously completed at KPU in a different academic level may be exempt from PLAR fees, with approval of a PLAR advisor/assessor and the relevant Dean. Where a previous assessment is on file as precedent, a flat fee of up to \$750 may be assessed at the discretion of the Dean with approval of the Chief Financial Officer.

5. Continuing and Professional Studies:

Fees and charges will be assessed by the appropriate Vice President.

6. Service charges:

All discretionary fees will be determined by the appropriate Vice President (e.g. duplicate tuition receipt charge, NSF cheque/stop payment charge, calendar charge, rush documents, graduation late fee, document evaluation fee, external invigilation charge, supplementation exam fee, library card replacement fee, cheque replacement fee, etc.).

7. Co-operative Education Work Term for both domestic and international students:

All Co-operative Education Students	Tuition	Student Fees (LTSD)
Full-time work terms	\$718.42 per work term	7% of tuition

- a. The tuition fee for a Co-operative Education Work Term is a flat fee per work term. This is equivalent to 4.5 credit hours based on the amount per credit in category 2. a.1. Note however, the student will be awarded the equivalent of 9 credit hours.

8. International student fees

- a. International student tuition fees for credit based programs, excluding graduate level programs:

Category	\$ / credit
1	\$726.42 / credit

- b. International student tuition fees for English Upgrading (ENGQ) and English Language Studies (ELST)

Category	\$ / credit
1	\$402.04 / credit

c. International student tuition fees for credit based graduate level programs:

Category	\$ / credit	
1	\$726.42	<ul style="list-style-type: none"> <li>▪ Graduate Diploma in Business Administration-Green Business courses.</li> <li>▪ Graduate Diploma in Business Administration-Global Business courses.</li> <li>▪ Graduate Certificate in Sustainable Food Systems and Security courses.</li> </ul>

d. International student tuition fees for fixed term programs:

Category	\$ / credit
1	\$726.42 / credit

9. Other fees and charges for international students are as follows:

a. Student fees for libraries, technologies and student life	7% of tuition
b. Application fee	\$120.00
c. Transcript fee	\$10.00 per transcript
d. Appeals	\$15.00
e. Confirmation deposit	<p>International applicants are required to remit a non-refundable \$5,000 confirmation deposit to signify acceptance of an offer of admission.</p> <p>If the student registers, this fee will be applied towards the tuition fees assessment, thereby reducing the total fees owing.</p>
f. International tuition deposit	<p>Continuing international students are required to remit a non-refundable \$2,200 international tuition deposit to signify their intent to register in classes for the upcoming term.</p> <p>Once an international student registers for courses, the international tuition deposit is applied toward the account balance, thereby reducing the total fees owing for the term.</p>
g. Graduation fee	No charge

Bylaw History	
Bylaw No.	4
Approving Jurisdiction:	Board of Governors
Original Effective Date:	November 16, 1982
Revised Date:	<del>February 1, 2023</del> January 31, 2024

## Bylaw No. 4

### Fees

- Pursuant to the *University Act*, program or course fees and charges to be paid to the University by students shall be determined and/or revised by the Board of Governors. The rates effective September 1, 2024 are included below.
- ~~The tuition~~ Tuition fee structure for domestic students ~~includes base tuition (<sup>1</sup>Category 1) as well as differential tuition (Categories 2-9). Rates effective September 1, 2023 shall be:~~
  - Credit ~~Based Programs~~ based programs, excluding graduate level programs:

Category	\$ / credit	
1	<del>\$156.52</del> <u>\$159.65</u>	<ul style="list-style-type: none"> <li>Existing courses<sup>1</sup> as at September 1, 2011 will remain in Category 1.<sup>2</sup></li> <li><del>Courses in Adult Special</del> <u>Accessible Education and Training courses.</u></li> </ul>
2	<del>\$189.13</del> <u>\$192.91</u>	<ul style="list-style-type: none"> <li><del>Courses in the</del> Education Assistant Program <u>courses.</u></li> <li>New courses developed for degrees/programs in Faculties such as Business and Arts.</li> </ul>
3	<del>\$211.26</del> <u>\$215.48</u>	<ul style="list-style-type: none"> <li><del>Courses in</del> Bachelor of Design, Product Design <u>courses.</u></li> <li>New courses developed for <del>degrees/</del> programs that incorporate smaller classes, labs, and/or studios, e.g. Design, Science, Horticulture and Health.</li> </ul>
4	<del>\$241.78</del> <u>\$246.61</u>	<ul style="list-style-type: none"> <li><del>Courses in the</del> Health Unit Coordinator <del>program</del> <u>courses.</u></li> <li><u>New online courses developed for degrees/programs and other specialized programs.</u></li> <li><u>Diploma in Front-End Development for Interactive Application courses.</u></li> </ul>

<sup>1</sup> Courses eligible as "new" for the purposes of this Bylaw (including courses designated as online) are courses assigned newly designated subject codes accompanying Ministry-approved programs not previously offered by KPU. New courses approved by Senate that bear a pre-existing subject code are not considered "new" for the purposes of this Bylaw (unless they are being newly classified at a different academic level).

<sup>2</sup> With the exception of the Health Unit Coordinator and Education Assistant Programs.

5	\$298.76	<ul style="list-style-type: none"> <li>• <del>Courses in Brewing and Brewery Operations and Health.</del></li> <li>• <del>Courses in Mechatronics and Advanced Manufacturing Technology Diploma.</del></li> </ul>
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<sup>1</sup> ~~With the exception of the Health Unit Coordinator and Education Assistant Programs.~~



5	\$304.73	<ul style="list-style-type: none"> <li>▪ <u>Brewing and Brewery Operations courses.</u></li> <li>▪ <u>Health (HEAL) courses.</u></li> <li>▪ <u>Mechatronics and Advanced Manufacturing Technology Diploma courses.</u></li> </ul>
6	\$ <del>626.82</del> 639.35	<ul style="list-style-type: none"> <li>▪ <del>Post-Baccalaureate in Technical Apparel Design.</del></li> <li>▪ <del>Graduate Certificate in Sustainable Food Systems and Security courses.</del></li> </ul>
7	\$ <del>253.38</del> 258.44	<ul style="list-style-type: none"> <li>▪ Post-Baccalaureate Diploma in Accounting <u>courses.</u></li> </ul>
8	\$ <del>344.12</del> 351.00	<ul style="list-style-type: none"> <li>▪ Diploma in Traditional Chinese Medicine – Acupuncture <u>courses.</u></li> <li>▪ Certificate in Farrier Science <u>courses.</u></li> </ul>
9	\$ <del>394.15</del> 402.03	<ul style="list-style-type: none"> <li>▪ Post-Baccalaureate Diploma in Operations and Supply Chain Management <u>courses.</u></li> <li>▪ Post-Baccalaureate Diploma in Technical Management and Services <u>courses.</u></li> <li>▪ Post-Baccalaureate Diploma in Human Resource Management <u>courses.</u></li> <li>▪ <del>Graduate Diploma in Business Administration Green Business.</del></li> <li>▪ <del>Graduate Diploma in Business Administration Global Business.</del></li> <li>▪ <del>Courses in</del> Entertainment Arts <u>courses.</u></li> <li>▪ <u>Citation in Cloud Architecture and Security courses.</u></li> </ul>

b. Fixed ~~Term Program~~term programs:

Category	\$ / week	
1	\$ <del>136.36</del> 139.08	<ul style="list-style-type: none"> <li>▪ Existing courses as at September 1, 2011.</li> </ul>
2	\$ <del>279.67</del> 285.26	<ul style="list-style-type: none"> <li>▪ New courses developed for degrees/programs in <del>Trades and Technology field of study</del><u>skilled trades programs</u>, e.g. Arborist <del>program</del><u>courses</u></li> </ul>

~~Courses eligible as “new” for the purposes of differential fee assessment under this Bylaw (including courses designated as online) are courses assigned newly designated subject codes accompanying Ministry approved programs not previously offered by KPU. New courses approved by Senate that bear a pre-existing subject code are not considered “new” for the purposes of differential fee assessment (unless they are being newly classified at a different academic level).~~

c. ~~c.~~ Adult Upgrading

No charge

d. ~~d.~~ English Language Studies

No charge

~~3. Other fees and charges for domestic students effective September 1, 2023 are as follows:~~

e. Credit based graduate level programs:

<del>Category a— Student fees for libraries, technologies and student life.</del>	<del>7% of tuition \$ / credit</del>	
<del>b.— Application fee<sup>1</sup></del>	<del>\$40.00 No charge for self- declared Aboriginal applicants.<sup>402.03</sup></del>	<ul style="list-style-type: none"> <li>▪ <u>Graduate Diploma in Business Administration-Green Business courses.</u></li> <li>▪ <u>Graduate Diploma in Business Administration-Global Business courses.</u></li> </ul>
<del>c.—Transcript fee</del>		<del>\$10.00 per transcript</del>
<del>d.—Appeals</del>		<del>\$15.00</del>
<del>e.— Confirmation deposit<sup>2</sup></del>	<del>\$639.35</del>	<p>Domestic applicants are required to remit a non-refundable \$250.00 confirmation deposit to signify acceptance of an offer of admission to open intakes and a \$500.00 confirmation deposit to signify acceptance of an offer of admission to a limited intake program.</p> <p>If the student registers this fee will be applied towards the full-tuition fees assessment.</p> <ul style="list-style-type: none"> <li>▪ <u>Graduate Certificate in Sustainable Food Systems and Security courses.</u></li> </ul>
<del>f.—Graduation fee</del>		<del>No charge</del>

3. Other fees and charges for domestic students:

<u>a. Student fees for libraries, technologies and student life</u>	<u>7% of tuition</u>
<u>b. Application fee</u>	<u>\$40.00</u> <u>No charge for self-declared Aboriginal applicants</u>
<u>c. Transcript fee</u>	<u>\$10.00 per transcript</u>
<u>d. Appeals</u>	<u>\$15.00</u>

e. <u>Confirmation deposit</u>	<u>Domestic applicants are required to remit a non-refundable \$250.00 confirmation deposit to signify acceptance of an offer of admission to open intakes and a \$500.00 confirmation deposit to signify acceptance of an offer of admission to a limited intake program.</u>  <u>If the student registers this fee will be applied towards the full tuition fees assessment, thereby reducing the total fees owing.</u>
f. <u>Graduation fee</u>	<u>No charge</u>

4. Prior Learning Assessment and Recognition (PLAR):

- a. Students receiving PLAR credit awarded for individual course(s) will be charged the domestic rate of tuition based on the fee category for the assigned course.
- b. Students receiving PLAR credit(s) as a result of a competency-based assessment will be charged an assessment fee of \$750 or the cost associated with the resulting credit at the domestic rate of tuition based on the fee category for the assigned course(s), or whichever is the lesser of the two.
- c. Students receiving PLAR credit for coursework previously completed at KPU in a different academic level may be exempt from PLAR fees, with approval of a PLAR advisor/assessor and the relevant Dean. Where a previous assessment is on file as precedent, a flat fee of up to \$750 may be assessed at the discretion of the Dean with approval of the ~~Vice President, Finance and Administration~~Chief Financial Officer.

5. Continuing and Professional Studies:

Fees and charges will be assessed by the appropriate Vice President.

6. Service charges:

~~7.~~

All discretionary fees will be determined by the appropriate Vice President (e.g. duplicate tuition receipt charge, NSF cheque/stop payment charge, calendar charge, rush documents, graduation late fee, document evaluation fee, external invigilation charge, supplementation exam fee, library card replacement fee, cheque replacement fee, etc.).

~~8-7.~~ Co-operative Education Work Term for both domestic and international students:

	Tuition	Student Fees (LTSD)
Full-time work terms	<del>\$704.34</del> <u>718.42</u> per work term	7% of tuition

- ~~a.~~ a. The tuition fee for a Co-operative Education Work Term is a flat fee per work term. - This is equivalent to 4.5 credit hours based on the amount per credit in category 2. a.1. Note however, the student will be awarded the equivalent of 9 credit hours.

~~8.~~ 8. International student fees

~~a. International student tuition fees for credit-based courses are as follows effective September 1, 2023 programs, excluding graduate level programs:~~

<del>a. International student tuition fees (except for 8 (b))Category</del>	<del>\$712.27 / credit</del>
<del>b. 1 International student tuition fees for English Upgrading (ENGQ) and English Language Studies (ELST)</del>	<del>\$394.16726.42 / credit</del>

~~International student tuition fees for Fixed Term Programs are as follows effective September 1, 2023:~~

<del>c. International student tuition fees</del>	<del>\$712.27 / week</del>
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Other fees and charges for international students are as follows:

<del>d. Student fees for libraries, technologies and student life</del>	<del>7% of tuition</del>
<del>e. Application fee</del>	<del>\$120.00</del>
<del>f. Transcript fee</del>	<del>\$10.00 per transcript</del>
<del>g. Appeals</del>	<del>\$15.00</del>
<del>h. Confirmation deposit</del>	<del>International applicants are required to remit a non-refundable \$5,000 confirmation deposit to signify acceptance of an offer of admission. If the student registers, this fee will be applied towards the full tuition fees assessment.</del>

<del>i. International tuition deposit</del>	<p>Continuing international students are required to remit a non-refundable \$2,200 international tuition deposit to signify their intent to register in classes for the upcoming term.</p> <p>Once an international student registers for courses, the international tuition deposit is applied toward the account balance, thereby reducing the total fees owing for the term.</p>
<del>j. Graduation fee</del>	No charge

International student tuition fees for English Upgrading (ENGQ) and English Language Studies (ELST)

b.

<u>Category</u>	<u>\$ / credit</u>
<u>1</u>	<u>\$402.04 / credit</u>

c. International student tuition fees for credit based graduate level programs:

<u>Category</u>	<u>\$ / credit</u>	
<u>1</u>	<u>\$726.42</u>	<ul style="list-style-type: none"> <li>▪ <u>Graduate Diploma in Business Administration-Green Business courses.</u></li> <li>▪ <u>Graduate Diploma in Business Administration-Global Business courses.</u></li> <li>▪ <u>Graduate Certificate in Sustainable Food Systems and Security courses.</u></li> </ul>

d. International student tuition fees for fixed term programs:

<u>Category</u>	<u>\$ / credit</u>
<u>1</u>	<u>\$726.42 / credit</u>

9. Other fees and charges for international students are as follows:

<u>a. Student fees for libraries, technologies and student life</u>	<u>7% of tuition</u>
<u>b. Application fee</u>	<u>\$120.00</u>
<u>c. Transcript fee</u>	<u>\$10.00 per transcript</u>
<u>d. Appeals</u>	<u>\$15.00</u>
<u>e. Confirmation deposit</u>	<p><u>International applicants are required to remit a non-refundable \$5,000 confirmation deposit to signify acceptance of an offer of admission.</u></p> <p><u>If the student registers, this fee will be applied towards the tuition fees assessment, thereby reducing the total fees owing.</u></p>
<u>f. International tuition deposit</u>	<p><u>Continuing international students are required to remit a non-refundable \$2,200 international tuition deposit to signify their intent to register in classes for the upcoming term.</u></p> <p><u>Once an international student registers for courses, the international tuition deposit is applied toward the account balance, thereby reducing the total fees owing for the term.</u></p>
<u>g. Graduation fee</u>	<u>No charge</u>



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## BOARD OF GOVERNORS - REGULAR MEETING

**Agenda Number: 9**

**Meeting Date:** *January 31, 2024*

**Presenter(s):** *Brett Favaro*

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**AGENDA TITLE:** PROGRAM REVISIONS: BACHELOR OF SCIENCE, MAJOR IN BIOLOGY, COOPERATIVE EDUCATION OPTION

BACHELOR OF SCIENCE (HONOURS), MAJOR IN BIOLOGY, COOPERATIVE EDUCATION OPTION

**ACTION REQUESTED:** Motion

### RECOMMENDED RESOLUTION

**THAT the Board of Governors approve the revisions to the Bachelor of Science, Major in Biology, Cooperative Education Option, and the Bachelor of Science (Honours), Major in Biology, Cooperative Education Option programs, effective September 1, 2024 and as recommended by Senate.**

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### COMMITTEE REPORT

On January 22, 2024 Senate recommended the Board of Governors approve the revisions to the Bachelor of Science, Major in Biology, Cooperative Education Option, and the Bachelor of Science (Honours), Major in Biology, Cooperative Education Option, effective September 1, 2024.

On January 10, 2024 the Senate Standing Committee on Curriculum recommended that Senate recommend the Board of Governors approve the revisions to the Bachelor of Science, Major in Biology, Cooperative Education Option, and the Bachelor of Science (Honours), Major in Biology, Cooperative Education Option, effective September 1, 2024.

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### Context and Background

These program changes were recommended by the BIOL Program Review after extensive consultations. The Program Review self-study, external review, and Quality Assurance (QA) plan identified needs to a) increase flexibility at upper year levels, b) reduce credit totals, and c) increase experiential learning opportunities in the programs. The changes proposed in the program revision accomplish these goals of the QA plan and will improve student progression in the Biology programs, better prepare our graduates with job-ready skills, and bring program flexibility more in line with other programs at KPU and elsewhere in BC.

### **Key Messages**

1. Incorporation of a core laboratory course in Evolution at the third-year level.
2. Incorporation of a COOP option to link BIOL program students with industry experience. The co-op option requires the completion of an additional 28 credits.
3. Reduction of restrictive requirements in upper years and credit total.

### **Resource Requirements**

A minor increase in laboratory staffing (two lab sections per year for BIOL 3150 course).

### **Implications/Risks**

Possible failure to run specific senior classes if they fail to fill when no longer required – the total number of offerings will not change, so this risk should be minor.

### **Consultations**

1. Office of the Provost
2. Office of the Registrar
3. Office of Career Services
4. Vice Chair of Senate
5. Brett Favaro, Dean of Science
6. Stephanie Howes, Dean of Business (COOP courses)

### **Attachments**

1. Program Change Form for B.Sc. Major in Biology, COOP
2. Program Change form for B.Sc. (Honours), Major in Biology, COOP
3. BIOL Curriculum Map – Updated Jan 2024

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### **Submitted by**

Michelle Molnar, Administrative Coordinator, University Senate

### **Date submitted**

January 23, 2024

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# 1. Program Change Proposal

## PROGRAM DETAILS

<b>Faculty:</b>	Science
<b>Program Name:</b>	Bachelor of Science, Major in Biology with Co-operative Education Option
<b>Department:</b>	Biology
<b>Effective date:</b>	September 1, 2024
<b>Dean/Associate Dean:</b>	Brett Favaro, Jeff Dyck
<b>Chair/Coordinator:</b>	Layne Myhre, Nicole Tunbridge
<b>Submission Date:</b>	January 23, 2024

## CONSULTATIONS

Consultations	Person Consulted	Consultation Date
<b>Office of the Provost:</b>	David Burns	July 5, 2023; Sept 13, 2023
<b>Vice Chair of Senate:</b>	Amy Jeon, Catherine Schwichtenberg	June 9, 2023; Sept 11, 2023
<b>Other(s)* (if applicable):</b>	Stephanie Howes, Dean of Business, Oct 19, 2023	

## OFFICE OF THE REGISTRAR PROPOSAL REVIEW

Review of Completed Program Change Proposal	Review Submission Date
Send to <a href="mailto:OREGCurrConsult@kpu.ca">OREGCurrConsult@kpu.ca</a> for review**	<b>Sept 11, 2023</b>

*\*\*Allow 2 weeks for the Office of the Registrar's proposal review (in advance of the SSCC submission deadline).*

*If the proposed changes introduce new courses, submit 2 weeks in advance of your Faculty's curriculum committee meeting.*

## APPROVALS

	Proposal Approval Date
<b>Faculty Curriculum Committee:</b>	December 7, 2023
<b>Faculty Council (if required):</b>	December 19, 2023
<b>SSC on Curriculum:</b>	January 10, 2024
<b>SSC on University Budget (if required):</b>	n/a
<b>SSC on Academic Planning and Priorities (if required):</b>	n/a
<b>Senate:</b>	January 22, 2024

<b>Overview of Proposed Change(s):</b>	<ol style="list-style-type: none"> <li>1. In compliance with our approved Quality Assurance (QA) plan, to implement changes to our program requirements intended to streamline program progression for students, permit more choices in satisfying curricular requirements, and bring our programs more in line with similar programming at other post-secondary institutions.</li> <li>2. Reduce credit totals by removing some electives but increasing choices in discipline-relevant areas.</li> <li>3. Introduction of a new Co-operative Education Option program for the Bachelor of Science, Major in Biology program.</li> </ol>
<b>Rationale:</b>	<ol style="list-style-type: none"> <li>1. The approved Biology Program Review Self-Study indicated a need to remove bottlenecks from the Biology programs, which were highly prescriptive, to a degree that is unusual for a Bachelor's program in Biology. As indicated in the approved QA Plan arising from the Review, the Biology Department held a Program Curricular Retreat on June 7, 2023, to redesign the curricular requirements of the two Biology Programs to improve student progression while still supporting our established Program Learning Outcomes.</li> <li>2. As indicated in the approved QA Plan, we have reduced the credit totals of our programs by 6 credits, by reducing extraneous electives beyond the required Breadth Electives but maintaining student flexibility by retaining choice in discipline-relevant areas.</li> <li>3. Developing a Co-operative Education Option within our degree programs arose as a recommendation from the BIOL program review. Having a Co-operative Education Option program gives students an opportunity to apply skills gained during their academic study to industry and government job settings. This is in keeping with the Polytechnic mandate and greatly improves student employability and job readiness. Given the strong ties between the Biology department and local industry through various research partnerships, it is an obvious way to allow students taking our programs to capitalize on work experiences, both in and outside the classroom. Moreover, the original Program Proposal for the Biology degree included the Co-op option, so this change is in keeping with the original ministry-approved proposal.</li> </ol>
<b>URL(s):</b>	<a href="https://calendar.kpu.ca/programs-az/science-horticulture/biology/biology-bs/">https://calendar.kpu.ca/programs-az/science-horticulture/biology/biology-bs/</a>

<b>Impact on Students:</b>	<p><b>Check all that apply:</b></p> <p><input type="checkbox"/> The changes alter the admission, declaration or continuance requirements  <i>If yes, provide both the current calendar entry and new calendar entry in full. (see below)</i></p> <p><input checked="" type="checkbox"/> The changes alter the curricular requirements</p>
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	<p><i>If yes, provide both the current calendar entry and new calendar entry in full. (see below)</i></p> <p><input checked="" type="checkbox"/> The changes change the total number of required credits  <i>If yes, state the <b>current</b> number of total credits: <b>138</b>  and <b>proposed</b> number of total credits: <b>132</b></i></p> <p><input checked="" type="checkbox"/> The changes introduce new, revised or discontinued courses  Discontinue BIOL 4150 (three credit), replaced with BIOL 3150 (four credit lab course) <i>and list the courses below.</i></p> <p><input checked="" type="checkbox"/> The changes alter the credential awarded  <i>If yes, indicate the proposed credential:</i>  Bachelor of Science, Major in Biology with Co-operative Education Option</p>
<b>Transition Plan</b>	<p>Current students will be able to complete the previous version of the program. We propose to develop the BIOL 3150 Evolutionary Biology course to be offered in 2024/2025, followed by discontinuance of the BIOL 4150 Evolutionary Biology course after one year, and use the Course Substitution form to allow a direct substitution for any student using the previous version after that point. All other previously required courses will continue to be offered regularly to ensure student progression until at least 2 years after the program change.</p>

## Curriculum Map<sup>1</sup>

See Appendix A for full Curriculum Map.

<sup>1</sup> **Introduced [I]:** Course learning outcomes that concentrate on knowledge or skills related to the program outcomes at a basic level or skills at an entry-level of complexity.

**Developing [D]:** Course level outcomes that demonstrate learning at an increasing level of proficiency of the program level outcome as well expanding complexity.

**Advanced [A]:** Course level outcomes that demonstrate learning related to the program level outcome with an increasing level of independence, expertise and sophistication or integrate the use of content or skills in multiple levels of complexity.

Current Requirements with Proposed Changes	New Requirements
<p><b>Admission Requirements</b></p> <p>The Faculty's Admission Requirements, which consist of KPU's <a href="#">undergraduate English Proficiency Requirement</a>, apply to this program.</p> <p><b>Declaration Requirements</b></p> <p>Students intending to graduate with this Faculty of Science and Horticulture degree must declare the credential by the time they complete 60 credits of undergraduate coursework. At the time of declaration, the student must satisfy all of the following requirements:</p> <p>In good academic standing with the University Completion of a minimum of 24 credits of undergraduate coursework, including the following:</p> <ul style="list-style-type: none"> <li>• 3 credits of ENGL at the 1100 level or higher</li> <li>• <a href="#">BIOL 1110</a> with a minimum grade of "C"</li> <li>• <a href="#">BIOL 1210</a> with a minimum grade of "C"</li> <li>• <a href="#">CHEM 1110</a> with a minimum grade of "B" or <a href="#">CHEM 1210</a> with a minimum grade of "C"</li> <li>• <a href="#">MATH 1120</a> with a minimum grade of "C" or <a href="#">MATH 1130</a> with a minimum grade of "C"</li> <li>• <a href="#">PHYS 1101</a> with a minimum grade of "C" or <a href="#">PHYS 1120</a> with a minimum grade of "C"</li> </ul> <p><b>Curricular Requirements</b></p> <p>All students must meet the following minimum requirements:</p>	<p><b>Admission Requirements</b></p> <p>The Faculty's Admission Requirements, which consist of KPU's <a href="#">undergraduate English Proficiency Requirement</a>, apply to this program.</p> <p><b>Declaration Requirements</b></p> <p>Students intending to graduate with this Faculty of Science and Horticulture degree must declare the credential by the time they complete 60 credits of undergraduate coursework. At the time of declaration, the student must satisfy all of the following requirements:</p> <p>In good academic standing with the University Completion of a minimum of 24 credits of undergraduate coursework, including the following:</p> <ul style="list-style-type: none"> <li>• 3 credits of ENGL at the 1100 level or higher</li> <li>• <a href="#">BIOL 1110</a> with a minimum grade of "C"</li> <li>• <a href="#">BIOL 1210</a> with a minimum grade of "C"</li> <li>• <a href="#">CHEM 1110</a> with a minimum grade of "B" or <a href="#">CHEM 1210</a> with a minimum grade of "C"</li> <li>• <a href="#">MATH 1120</a> with a minimum grade of "C" or <a href="#">MATH 1130</a> with a minimum grade of "C"</li> <li>• <a href="#">PHYS 1101</a> with a minimum grade of "C" or <a href="#">PHYS 1120</a> with a minimum grade of "C"</li> </ul> <p><b>Curricular Requirements</b></p> <p>All students must meet the following minimum requirements:</p>

- In addition to ENGL 1100, complete 3 credits from courses designated as Writing Intensive.
- 120 credits from courses at the 1100 level or higher.
- 45 credits from courses at the 3000 level or higher, including 9 credits at the 4000 level.
- 18 credits of breadth electives (see Electives below) including at least 3 credits from a course at the 3000 level or higher. These must include:
  - at least 12 credits from courses that are offered outside the Faculty of Science & Horticulture; and
  - up to 6 credits from courses offered within the Faculty of Science & Horticulture other than BIOL, CHEM, MATH, and PHYS.
- Cumulative GPA of 2.0 or higher.
- At least 50% of all courses for the BSc, and at least 66% of upper-level courses for the BSc, must be completed at KPU.

The Biology Major requires the completion of a minimum of ~~138~~ 132 credits, including the following specific course requirements.

Note: Some courses are only offered once per year. Please refer to the course timetable and speak with an Academic Advisor when planning.

Year 1		
<a href="#">BIOL 1110</a>	Introductory Biology I	4
<a href="#">BIOL 1210</a>	Introductory Biology II	4
<a href="#">CHEM 1110</a>	The Structure of Matter	4
<a href="#">CHEM 1210</a>	Chemical Energetics and Dynamics	4

- In addition to ENGL 1100, complete 3 credits from courses designated as Writing Intensive.
- 120 credits from courses at the 1100 level or higher.
- 45 credits from courses at the 3000 level or higher, including 9 credits at the 4000 level.
- 18 credits of breadth electives (see Electives below) including at least 3 credits from a course at the 3000 level or higher. These must include:
  - at least 12 credits from courses that are offered outside the Faculty of Science & Horticulture; and
  - up to 6 credits from courses offered within the Faculty of Science & Horticulture other than BIOL, CHEM, MATH, and PHYS.
- Cumulative GPA of 2.0 or higher.
- At least 50% of all courses for the BSc, and at least 66% of upper-level courses for the BSc, must be completed at KPU.

The Biology Major requires the completion of a minimum of 132 credits, including the following specific course requirements.

Note: Some courses are only offered once per year. Please refer to the course timetable and speak with an Academic Advisor when planning.

Year 1		
<a href="#">BIOL 1110</a>	Introductory Biology I	4
<a href="#">BIOL 1210</a>	Introductory Biology II	4
<a href="#">CHEM 1110</a>	The Structure of Matter	4
<a href="#">CHEM 1210</a>	Chemical Energetics and Dynamics	4



<a href="#">ENGL 1100</a>	Introduction to University Writing	3
<a href="#">MATH 1130</a>	Calculus for Life Sciences I <sup>1</sup>	3
<a href="#">MATH 1230</a>	Calculus for Life Sciences II	3
<a href="#">PHYS 1101</a>	Physics for Life Sciences I	4
<a href="#">PHYS 1102</a>	Physics for Life Sciences II	4
Select three credits of ENGL at the undergraduate level		3
<b>Credits</b>		36

### Year 2

<a href="#">BIOL 2320</a>	Genetics	4
<a href="#">BIOL 2321</a>	Cell Biology	4
<a href="#">BIOL 2322</a>	Ecology	4
<a href="#">BIOL 2421</a>	Cellular Biochemistry	3
<a href="#">CHEM 2320</a>	Organic Chemistry I	4
<a href="#">CHEM 2420</a>	Organic Chemistry II	4
<a href="#">MATH 2335</a>	Statistics for Life Sciences	3
<del>Select nine credits of Electives</del> <a href="#">Select six credits of Electives at the undergraduate level</a>		<del>96</del>
<b>Credits</b>		<del>35</del> <u>32</u>

### Year 3

<del><a href="#">BIOL 3110</a></del>	<del>Animal Behaviour</del>	<del>4</del>
<del><a href="#">BIOL 3215</a></del>	<del>Zoology</del>	<del>4</del>
<del><a href="#">BIOL 3165</a></del>	<del>Conservation Biology</del>	<del>3</del>
<del><a href="#">BIOL 3150</a></del>	<del>Evolutionary Biology</del>	<del>4</del>
<a href="#">BIOL 3180</a>	Life Science Research Methods	3
<del><a href="#">BIOL 3225</a></del>	<del>Biology of Plants: An Ecological and Evolutionary Perspective</del>	<del>4</del>

<a href="#">ENGL 1100</a>	Introduction to University Writing	3
<a href="#">MATH 1130</a>	Calculus for Life Sciences I <sup>1</sup>	3
<a href="#">MATH 1230</a>	Calculus for Life Sciences II	3
<a href="#">PHYS 1101</a>	Physics for Life Sciences I	4
<a href="#">PHYS 1102</a>	Physics for Life Sciences II	4
Select three credits of ENGL at the undergraduate level		3
<b>Credits</b>		36

### Year 2

<a href="#">BIOL 2320</a>	Genetics	4
<a href="#">BIOL 2321</a>	Cell Biology	4
<a href="#">BIOL 2322</a>	Ecology	4
<a href="#">BIOL 2421</a>	Cellular Biochemistry	3
<a href="#">CHEM 2320</a>	Organic Chemistry I	4
<a href="#">CHEM 2420</a>	Organic Chemistry II	4
<a href="#">MATH 2335</a>	Statistics for Life Sciences	3
Select six credits of Electives at the undergraduate level		6
<b>Credits</b>		32

### Year 3

BIOL 3150	Evolutionary Biology	4
<a href="#">BIOL 3180</a>	Life Science Research Methods	3
Select at least one of:		4
<a href="#">BIOL 3215</a>	Zoology	
<a href="#">BIOL 3225</a>	Biology of Plants: An Ecological and Evolutionary Perspective	
Select at least one of:		4

<a href="#">BIOL 3320</a>	Molecular Genetics	4
<a href="#">BIOL 3321</a>	Advanced Cell and Molecular Biology	4
Select at least one of:		<u>4</u>
<a href="#">BIOL 3215</a>	Zoology	
<a href="#">BIOL 3225</a>	Biology of Plants: An Ecological and Evolutionary Perspective	
Select at least one of:		<u>4</u>
<a href="#">BIOL 3320</a>	Molecular Genetics	
<a href="#">BIOL 3321</a>	Advanced Cell and Molecular Biology	
Select at least 12 credits of BIOL at the 3000 level or higher		<u>12</u>
Select three credits of BIOL at the undergraduate level		3
Select six credits of Electives <a href="#">at the undergraduate level</a>		6
<b>Credits</b>		<del>35</del> <u>36</u>

#### Year 4

<a href="#">BIOL 4140</a>	Animal Physiology	4
<a href="#">BIOL 4150</a>	Evolutionary Biology	3
<a href="#">BIOL 4235</a>	Marine Biology	3
<a href="#">BIOL 4245</a>	Developmental Biology	4
Select at least one of:		<u>3</u>
<a href="#">BIOL 3165</a>	Conservation Biology	
<a href="#">BIOL 4235</a>	Marine Biology	
Select at least one of:		<u>4</u>
<a href="#">BIOL 4140</a>	Animal Physiology	
<a href="#">BIOL 4245</a>	Developmental Biology	
Select at least six credits of BIOL at the 3000 level or higher		<u>6</u>

<a href="#">BIOL 3320</a>	Molecular Genetics	
<a href="#">BIOL 3321</a>	Advanced Cell and Molecular Biology	
Select at least 12 credits of BIOL at the 3000 level or higher		12
Select three credits of BIOL at the undergraduate level		3
Select six credits of Electives at the undergraduate level		6
<b>Credits</b>		36

#### Year 4

Select at least one of:		3
<a href="#">BIOL 3165</a>	Conservation Biology	
<a href="#">BIOL 4235</a>	Marine Biology	
Select at least one of:		4
<a href="#">BIOL 4140</a>	Animal Physiology	
<a href="#">BIOL 4245</a>	Developmental Biology	
Select at least six credits of BIOL at the 3000 level or higher		6
Select 9 credits of Electives at the undergraduate level		9
Select one of the following Groups:		6
Group A		
<a href="#">BIOL 4900</a>	Special Topics	
Select three credits of BIOL at the 3000 level or higher		
Group B		
<a href="#">BIOL 4199</a>	Research Project 1	

Select <del>12-9</del> credits of Electives <a href="#">at the undergraduate level</a>	<del>129</del>
Select one of the following Groups:	6
Group A	
<a href="#">BIOL 4900</a> Special Topics	
Select three credits of BIOL at the 3000 level or higher	
Group B	
<a href="#">BIOL 4199</a> Research Project 1	
<a href="#">BIOL 4299</a> Research Project 2	
<b>Credits</b>	<del>3228</del>
<b>Total Credits:</b>	<del>138132</del>

<sup>1</sup> MATH 1120 may be used as a substitute for MATH 1130

### **Electives**

~~As part of this program, students are required to complete 27 credits of electives. These must satisfy the General Requirements for 18 credits of breadth as stated above. The following courses are recommended as electives:~~

<b>Electives Course List</b>		
<del><a href="#">ANTH 3242</a></del>	<del>A Survey of the Primates</del>	<del>3</del>
<del><a href="#">ASTR 1105</a></del>	<del>Basic Astronomy</del>	<del>3</del>
<del><a href="#">ASTR 3111</a></del>	<del>Exploring Stars &amp; Galaxies</del>	<del>3</del>
<del><a href="#">BIOL 2330</a></del>	<del>Microbiology</del>	<del>4</del>
<del><a href="#">BIOL 3330</a></del>	<del>Microbiology II</del>	<del>4</del>

<a href="#">BIOL 4299</a>	Research Project 2	
<b>Credits</b>		28
<b>Total Credits:</b>		132

<sup>1</sup> MATH 1120 may be used as a substitute for MATH 1130

### **Co-operative Education Option**

The Bachelor of Science, Major in Biology degree is offered with a Cooperative Education Option. Co-operative Education gives a student the opportunity to apply the skills gained during academic study in paid, practical work experience semesters. Degree students can complete a minimum of three work terms while completing their degree. Work terms generally occur full-time in separate 4 month work semesters. Work semesters alternate with academic study.

Students wishing to enter and participate in the Co-operative Education Option must meet the following requirements:

### **Declaration and Entrance Requirements**

- Declaration into the Bachelor of Science, Major in Biology program
- Declaration of the co-operative education option prior to completion of 90 credits for the Bachelor of Science, Major in Biology program
- Minimum GPA of 2.7

### **Program Continuance Requirements**

- Completion of COOP 1101 prior to completing 90 credits
- Minimum GPA of 2.7
- Instructor permission

<del>BIOL 4260</del>	<del>Human Neural, Excretory and Endocrine Systems</del>	<del>4</del>
<del>BIOL 4320</del>	<del>Human Genetics</del>	<del>3</del>
<del>CHEM 2315</del>	<del>Analytical Chemistry</del>	<del>4</del>
<del>CHEM 3310</del>	<del>Physical Chemistry</del>	<del>4</del>
<del>CPSC 1100</del>	<del>Introduction to Computer Literacy</del>	<del>3</del>
<del>EDUC 4100</del>	<del>Post University Transition</del>	<del>3</del>
<del>ENVI 2305</del>	<del>Environmental Toxicology</del>	<del>3</del>
<del>ENVI 2405</del>	<del>Environmental Legislation</del>	<del>3</del>
<del>ENVI 3112</del>	<del>Environment and Society</del>	<del>3</del>
<del>HSCI 3225</del>	<del>Nutrition</del>	<del>3</del>
<del>HORT 3310</del>	<del>Entomology</del>	<del>3</del>

### Co-operative Education Option

The Bachelor of Science, Major in Biology degree is offered with a Cooperative Education Option. Co-operative Education gives a student the opportunity to apply the skills gained during academic study in paid, practical work experience semesters. Degree students can complete a minimum of three work terms while completing their

### Co-op Course Requirements

The Co-operative Education designation requires successful completion of the following courses:

Required		
<a href="#">COOP 1101</a>	Introduction to Professional and Career Readiness	1
<a href="#">COOP 1150</a>	Co-op Work Semester 1	9
<a href="#">COOP 2150</a>	Co-op Work Semester 2	9
<a href="#">COOP 3150</a>	Co-op Work Semester 3	9
Optional		
<a href="#">COOP 4150</a>	Co-op Work Semester 4	
Credits		28

Note: COOP courses must be completed in ascending numerical order. Contact the Co-op office for information about the possibility of part-time work terms. COOP courses may be used only to satisfy the Co-op designation and cannot be used to satisfy other curricular requirements of the program.

### Additional Requirements

In addition to the requirements stated above, all Co-op students must satisfy the General Co-operative Education Requirements.

### Credential Awarded

Upon successful completion of this program, students are eligible to receive a **Bachelor of Science, Major in Biology, Co-operative Education Option**.

degree. Work terms generally occur full-time in separate 4 month work semesters. Work semesters alternate with academic study.

Students wishing to enter and participate in the Co-operative Education Option must meet the following requirements:

### **Declaration and Entrance Requirements**

- Declaration into the Bachelor of Science, Major in Biology program
- Declaration of the co-operative education option prior to completion of 90 credits for the Bachelor of Science, Major in Biology program
- Minimum GPA of 2.7

### **Program Continuance Requirements**

- Completion of COOP 1101 prior to completing 90 credits
- Minimum GPA of 2.7
- Instructor permission

### **Co-op Course Requirements**

The Co-operative Education designation requires successful completion of the following courses:

<b><u>Required</u></b>		
<a href="#"><u>COOP 1101</u></a>	<u>Introduction to Professional and Career Readiness</u>	<u>1</u>
<a href="#"><u>COOP 1150</u></a>	<u>Co-op Work Semester 1</u>	<u>9</u>
<a href="#"><u>COOP 2150</u></a>	<u>Co-op Work Semester 2</u>	<u>9</u>
<a href="#"><u>COOP 3150</u></a>	<u>Co-op Work Semester 3</u>	<u>9</u>
<b><u>Optional</u></b>		

<a href="#">COOP 4150</a>	<a href="#">Co-op Work Semester 4</a>	
<b><u>Credits</u></b>		<b><u>28</u></b>
<p><u>Note: COOP courses must be completed in ascending numerical order. Contact the Co-op office for information about the possibility of part-time work terms. COOP courses may be used only to satisfy the Co-op designation and cannot be used to satisfy other curricular requirements of the program.</u></p> <p><b><u>Additional Requirements</u></b></p> <p><u>In addition to the requirements stated above, all Co-op students must satisfy the General Co-operative Education Requirements.</u></p> <p><b>Credential Awarded</b>  Upon successful completion of this program, students are eligible to receive a <b>Bachelor of Science, Major in Biology, <u>Co-operative Education Option</u></b>.</p>		

List any new, revised or discontinued courses associated with this program change			
Course Subject Code	Course Number	Descriptive Title, hyperlinked to course outline	New, Revised, or Discontinued
BIOL	3150	<a href="#">Evolutionary Biology</a>	New

## 2. Curriculum Consultations

Please consult with the Office of the Provost as additional consultations may be required depending on the scope of the proposed program changes.

For consultees, please consider the following questions when providing your feedback to the Proponent:

- Does your department/unit support the proposed curriculum? Provide rationale for support/non-support.
- How does the proposed curriculum impact your department/unit?
- How does the proposed curriculum impact your program?
- Is there potential for curricular overlap with current offerings?

Name	Department, Program and/or Faculty	Comments	Date Consulted
Jennifer O'Brien	Office of the Provost (oPro)		04 July 2023
Virginia Vandenberg	Office of the Provost (oPro)		10 July 2023

**Note:** No consultations in addition to those listed on page 2 were requested.

### 3. Financial Assessment Questions

#### Financial Assessment Questions

The following information will help determine whether there is a budgetary impact to the proposed program changes, and what additional information and consultation will be required.

Please note that all additional budgetary requests in support of the proposed program change require approval from the Dean and the Provost, and additional financial documents may be required.

Change in number of credits	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, please provide details:
Change in space requirements	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, please provide details:
Change in equipment requirements	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, please provide details:
Change in support requirements	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, please provide details: <u>Addition of lab to BIOL 3150 will require a laboratory instructor, which may necessitate auxiliary hiring. We have added this budgetary request for the upcoming Fiscal year. If it is not approved, we may be able to absorb this one lab section into existing staff workloads, or switch offerings to accommodate the added lab section.</u>

Please attach any financial document if required.



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3. Financial Assessment Questions.....	14

# 1. Program Change Proposal

## PROGRAM DETAILS

<b>Faculty:</b>	Science
<b>Program Name:</b>	Bachelor of Science (Honours), Major in Biology with Co-operative Education Option
<b>Department:</b>	Biology
<b>Effective date:</b>	September 1, 2024
<b>Dean/Associate Dean:</b>	Brett Favaro, Jeff Dyck
<b>Chair/Coordinator:</b>	Layne Myhre, Nicole Tunbridge
<b>Submission Date:</b>	December 20, 2023

## CONSULTATIONS

Consultations	Person Consulted	Consultation Date
<b>Office of the Provost:</b>	David Burns	July 5, 2023; Sept 13, 2023
<b>Vice Chair of Senate:</b>	Amy Jeon, Catherine Schwichtenberg	June 9, 2023; Sept 11, 2023
<b>Other(s)* (if applicable):</b>	Stephanie Howes, Dean of Business, Oct 19, 2023	

*\*For more complex consultations, please attach the Curriculum Consultation Forms. If you have any inquiries regarding the completion of the above Consultations section or the Curriculum Consultation Forms, please contact the Chair of the Senate Standing Committee on Curriculum.*

## OFFICE OF THE REGISTRAR PROPOSAL REVIEW

<b>Review of Completed Program Change Proposal</b>	<b>Review Submission Date</b>
Send to <a href="mailto:OREGCurrConsult@kpu.ca">OREGCurrConsult@kpu.ca</a> for review**	<b>Sept 11, 2023</b>

*\*\*Allow 2 weeks for the Office of the Registrar's proposal review (in advance of the SSCC submission deadline).  
If the proposed changes introduce new courses, submit 2 weeks in advance of your Faculty's curriculum committee meeting.*

## APPROVALS

	Proposal Approval Date
<b>Faculty Curriculum Committee:</b>	December 7, 2023
<b>Faculty Council (if required):</b>	December 19, 2023
<b>SSC on Curriculum:</b>	January 10, 2024
<b>SSC on University Budget (if required):</b>	n/a
<b>SSC on Academic Planning and Priorities (if required):</b>	n/a
<b>Senate:</b>	January 22, 2024

<b>Overview of Proposed Change(s):</b>	<ol style="list-style-type: none"> <li>1. In compliance with our approved Quality Assurance (QA) plan, to implement changes to our program requirements intended to streamline program progression for students and permit more choices in satisfying curricular requirements, and bring our programs more in line with similar programming at other post-secondary institutions.</li> <li>2. Reduce credit totals by removing some electives but increasing choices in discipline-relevant areas.</li> <li>3. Introduction of a new Co-operative Education Option program for the Bachelor of Science (Honours), Major in Biology degree program.</li> </ol>
<b>Rationale:</b>	<ol style="list-style-type: none"> <li>1. The approved Biology Program Review Self-Study indicated a need to remove bottlenecks from the Biology programs, which were highly prescriptive, to a degree that is unusual for a Bachelor's program in Biology. As indicated in the approved QA Plan arising from the Review, the Biology Department held a Program Curricular Retreat on June 7, 2023, to redesign the curricular requirements of the two Biology Programs to improve student progression while still supporting our established Program Learning Outcomes.</li> <li>2. As indicated in the approved QA Plan, we have reduced the credit totals of our programs by 6 credits, by reducing extraneous electives beyond the required Breadth Electives but maintaining student flexibility by retaining choice in discipline-relevant areas.</li> <li>3. Developing a Co-operative Education Option within our degree programs arose as a recommendation from the BIOL program review. Having a Co-operative Education Option program gives students an opportunity to apply skills gained during their academic study to industry and government job settings. This is in keeping with the Polytechnic mandate and greatly improves student employability and job-readiness. Given the strong ties between the Biology department and local industry through various research partnerships, it is an obvious way to allow students taking our programs to capitalize on work experiences, both in and outside the classroom. Moreover, the original Program Proposal for the Biology degree included the Co-op option, so this change is in keeping with the original ministry-approved proposal.</li> </ol>
<b>URL(s):</b>	<a href="https://calendar.kpu.ca/programs-az/science-horticulture/biology/biology-bs/">https://calendar.kpu.ca/programs-az/science-horticulture/biology/biology-bs/</a>

<b>Impact on Students:</b>	<p><b>Check all that apply:</b></p> <p><input type="checkbox"/> The changes alter the admission, declaration or continuance requirements  <i>If yes, provide both the current calendar entry and new calendar entry in full. (see below)</i></p> <p><input checked="" type="checkbox"/> The changes alter the curricular requirements  <i>If yes, provide both the current calendar entry and new calendar entry in full. (see below)</i></p>
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	<p><input checked="" type="checkbox"/> The changes change the total number of required credits  <i>If yes, state the <b>current</b> number of total credits: <b>140</b>  and <b>proposed</b> number of total credits: <b>134</b></i></p> <p><input checked="" type="checkbox"/> The changes introduce new, revised or discontinued courses  <i>If yes, indicate the Faculty approval date and list the courses below.</i>  Discontinue BIOL 4150 (three credit), replaced with BIOL 3150 (four credit lab course).</p> <p><input checked="" type="checkbox"/> The changes alter the credential awarded  <i>If yes, indicate the proposed credential:</i>  Bachelor of Science (Honours), Major in Biology with Co-operative Education Option</p>
<b>Transition Plan</b>	<p>Current students will be able to complete the previous version of the program. We propose to develop the BIOL 3150 Evolutionary Biology course to be offered in 2024/2025, followed by discontinuance of the BIOL 4150 Evolutionary Biology course after one year, and use the Course Substitution form to allow a direct substitution for any student using the previous version after that point. All other previously required courses will continue to be offered regularly to ensure student progression until at least 2 years after the program change.</p>

## Curriculum Map<sup>1</sup>

See Appendix A for full Curriculum Map.

<sup>1</sup> **Introduced [I]**: Course learning outcomes that concentrate on knowledge or skills related to the program outcomes at a basic level or skills at an entry-level of complexity.

**Developing [D]**: Course level outcomes that demonstrate learning at an increasing level of proficiency of the program level outcome as well as expanding complexity.

**Advanced [A]**: Course level outcomes that demonstrate learning related to the program level outcome with an increasing level of independence, expertise and sophistication or integrate the use of content or skills in multiple levels of complexity.

Current Requirements with Proposed Changes	New Requirements
<p><b>Admission Requirements</b></p> <p>The Faculty's Admission Requirements, which consist of KPU's <a href="#">undergraduate English Proficiency Requirement</a>, apply to this program.</p> <p><b>Declaration Requirements</b></p> <p>Students intending to graduate with this Faculty of Science and Horticulture degree must declare the credential by the time they complete 60 credits of undergraduate coursework. At the time of declaration, the student must satisfy all of the following requirements:</p> <p>In good academic standing with the University Completion of a minimum of 24 credits of undergraduate coursework, including the following:</p> <ul style="list-style-type: none"> <li>• 3 credits of ENGL at the 1100 level or higher</li> <li>• <a href="#">BIOL 1110</a> with a minimum grade of "C"</li> <li>• <a href="#">BIOL 1210</a> with a minimum grade of "C"</li> <li>• <a href="#">CHEM 1110</a> with a minimum grade of "B" or <a href="#">CHEM 1210</a> with a minimum grade of "C"</li> <li>• <a href="#">MATH 1120</a> with a minimum grade of "C" or <a href="#">MATH 1130</a> with a minimum grade of "C"</li> <li>• <a href="#">PHYS 1101</a> with a minimum grade of "C" or <a href="#">PHYS 1120</a> with a minimum grade of "C"</li> </ul> <p><b>Curricular Requirements</b></p> <p>All students must meet the following minimum requirements:</p>	<p><b>Admission Requirements</b></p> <p>The Faculty's Admission Requirements, which consist of KPU's <a href="#">undergraduate English Proficiency Requirement</a>, apply to this program.</p> <p><b>Declaration Requirements</b></p> <p>Students intending to graduate with this Faculty of Science and Horticulture degree must declare the credential by the time they complete 60 credits of undergraduate coursework. At the time of declaration, the student must satisfy all of the following requirements:</p> <p>In good academic standing with the University Completion of a minimum of 24 credits of undergraduate coursework, including the following:</p> <ul style="list-style-type: none"> <li>• 3 credits of ENGL at the 1100 level or higher</li> <li>• <a href="#">BIOL 1110</a> with a minimum grade of "C"</li> <li>• <a href="#">BIOL 1210</a> with a minimum grade of "C"</li> <li>• <a href="#">CHEM 1110</a> with a minimum grade of "B" or <a href="#">CHEM 1210</a> with a minimum grade of "C"</li> <li>• <a href="#">MATH 1120</a> with a minimum grade of "C" or <a href="#">MATH 1130</a> with a minimum grade of "C"</li> <li>• <a href="#">PHYS 1101</a> with a minimum grade of "C" or <a href="#">PHYS 1120</a> with a minimum grade of "C"</li> </ul> <p><b>Curricular Requirements</b></p> <p>All students must meet the following minimum requirements:</p>

<ul style="list-style-type: none"> <li>• In addition to ENGL 1100, complete 3 credits from courses designated as Writing Intensive.</li> <li>• 120 credits from courses at the 1100 level or higher.</li> <li>• 45 credits from courses at the 3000 level or higher, including 9 credits at the 4000 level.</li> <li>• 18 credits of breadth electives (see Electives below) including at least 3 credits from a course at the 3000 level or higher. These must include: <ul style="list-style-type: none"> <li>○ at least 12 credits from courses that are offered outside the Faculty of Science &amp; Horticulture; and</li> <li>○ up to 6 credits from courses offered within the Faculty of Science &amp; Horticulture other than BIOL, CHEM, MATH, and PHYS.</li> </ul> </li> <li>• Cumulative GPA of 2.0 or higher.</li> <li>• At least 50% of all courses for the BSc, and at least 66% of upper-level courses for the BSc, must be completed at KPU.</li> </ul> <p>Enrolment in the Biology Honours program requires the permission of the Biology Department. In order to be considered for the Honours program, students must typically have a record of exceptional academic performance, including a minimum Grade Point Average of 3.0</p> <p>The Bachelor of Science (Honours), Major in Biology degree requires the completion of a minimum of <del>140</del><u>134</u> credits, including the following specific course requirements.</p> <p>Note: Some courses are only offered once per year. Please refer to the course timetable and speak with an Academic Advisor when planning.</p>	<ul style="list-style-type: none"> <li>• In addition to ENGL 1100, complete 3 credits from courses designated as Writing Intensive.</li> <li>• 120 credits from courses at the 1100 level or higher.</li> <li>• 45 credits from courses at the 3000 level or higher, including 9 credits at the 4000 level.</li> <li>• 18 credits of breadth electives (see Electives below) including at least 3 credits from a course at the 3000 level or higher. These must include: <ul style="list-style-type: none"> <li>○ at least 12 credits from courses that are offered outside the Faculty of Science &amp; Horticulture; and</li> <li>○ up to 6 credits from courses offered within the Faculty of Science &amp; Horticulture other than BIOL, CHEM, MATH, and PHYS.</li> </ul> </li> <li>• Cumulative GPA of 2.0 or higher.</li> <li>• At least 50% of all courses for the BSc, and at least 66% of upper-level courses for the BSc, must be completed at KPU.</li> </ul> <p>Enrolment in the Biology Honours program requires the permission of the Biology Department. In order to be considered for the Honours program, students must typically have a record of exceptional academic performance, including a minimum Grade Point Average of 3.0</p> <p>The Bachelor of Science (Honours), Major in Biology degree requires the completion of a minimum of 134 credits, including the following specific course requirements.</p> <p>Note: Some courses are only offered once per year. Please refer to the course timetable and speak with an Academic Advisor when planning.</p>
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Year 1		
<a href="#">BIOL 1110</a>	Introductory Biology I	4
<a href="#">BIOL 1210</a>	Introductory Biology II	4
<a href="#">CHEM 1110</a>	The Structure of Matter	4
<a href="#">CHEM 1210</a>	Chemical Energetics and Dynamics	4
<a href="#">ENGL 1100</a>	Introduction to University Writing	3
<a href="#">MATH 1130</a>	Calculus for Life Sciences I <sup>1</sup>	3
<a href="#">MATH 1230</a>	Calculus for Life Sciences II	3
<a href="#">PHYS 1101</a>	Physics for Life Sciences I	4
<a href="#">PHYS 1102</a>	Physics for Life Sciences II	4
Select three credits of ENGL at the undergraduate level		3
<b>Credits</b>		36

Year 2		
<a href="#">BIOL 2320</a>	Genetics	4
<a href="#">BIOL 2321</a>	Cell Biology	4
<a href="#">BIOL 2322</a>	Ecology	4
<a href="#">BIOL 2421</a>	Cellular Biochemistry	3
<a href="#">CHEM 2320</a>	Organic Chemistry I	4
<a href="#">CHEM 2420</a>	Organic Chemistry II	4
<a href="#">MATH 2335</a>	Statistics for Life Sciences	3
<del>Select nine credits of Electives</del> <a href="#">Select six credits of Electives at the undergraduate level</a>		<del>96</del>
<b>Credits</b>		<del>35</del> <a href="#">32</a>

Year 3		
<a href="#">BIOL 3110</a>	<del>Animal Behaviour</del>	4
<a href="#">BIOL 3215</a>	Zoology	4

Year 1		
<a href="#">BIOL 1110</a>	Introductory Biology I	4
<a href="#">BIOL 1210</a>	Introductory Biology II	4
<a href="#">CHEM 1110</a>	The Structure of Matter	4
<a href="#">CHEM 1210</a>	Chemical Energetics and Dynamics	4
<a href="#">ENGL 1100</a>	Introduction to University Writing	3
<a href="#">MATH 1130</a>	Calculus for Life Sciences I <sup>1</sup>	3
<a href="#">MATH 1230</a>	Calculus for Life Sciences II	3
<a href="#">PHYS 1101</a>	Physics for Life Sciences I	4
<a href="#">PHYS 1102</a>	Physics for Life Sciences II	4
Select three credits of ENGL at the undergraduate level		3
<b>Credits</b>		36

Year 2		
<a href="#">BIOL 2320</a>	Genetics	4
<a href="#">BIOL 2321</a>	Cell Biology	4
<a href="#">BIOL 2322</a>	Ecology	4
<a href="#">BIOL 2421</a>	Cellular Biochemistry	3
<a href="#">CHEM 2320</a>	Organic Chemistry I	4
<a href="#">CHEM 2420</a>	Organic Chemistry II	4
<a href="#">MATH 2335</a>	Statistics for Life Sciences	3
Select six credits of Electives at the undergraduate level		6
<b>Credits</b>		32

Year 3		
BIOL 3150	Evolutionary Biology	4
<a href="#">BIOL 3180</a>	Life Science Research Methods	3

<a href="#">BIOL 3165</a>	Conservation Biology	3
<a href="#">BIOL 3150</a>	Evolutionary Biology	4
<a href="#">BIOL 3180</a>	Life Science Research Methods	3
<a href="#">BIOL 3225</a>	Biology of Plants: An Ecological and Evolutionary Perspective	4
<a href="#">BIOL 3320</a>	Molecular Genetics	4
<a href="#">BIOL 3321</a>	Advanced Cell and Molecular Biology	4
Select at least one of:		4
<a href="#">BIOL 3215</a>	Zoology	
<a href="#">BIOL 3225</a>	Biology of Plants: An Ecological and Evolutionary Perspective	
Select at least one of:		4
<a href="#">BIOL 3320</a>	Molecular Genetics	
<a href="#">BIOL 3321</a>	Advanced Cell and Molecular Biology	
Select at least 12 credits of BIOL at the 3000 level or higher		12
Select three credits of BIOL at the undergraduate level		3
Select six credits of Electives <a href="#">at the undergraduate level</a>		6
<b>Credits</b>		<del>35</del> 36

#### Year 4

<a href="#">BIOL 4140</a>	Animal Physiology	4
<a href="#">BIOL 4150</a>	Evolutionary Biology	3
<a href="#">BIOL 4235</a>	Marine Biology	3
<a href="#">BIOL 4245</a>	Developmental Biology	4
<a href="#">BIOL 4990</a>	Honours Thesis Project 1	4
<a href="#">BIOL 4995</a>	Honours Thesis Project 2	4
Select at least one of:		3
<a href="#">BIOL 3165</a>	Conservation Biology	

Select at least one of:		4
<a href="#">BIOL 3215</a>	Zoology	
<a href="#">BIOL 3225</a>	Biology of Plants: An Ecological and Evolutionary Perspective	
Select at least one of:		4
<a href="#">BIOL 3320</a>	Molecular Genetics	
<a href="#">BIOL 3321</a>	Advanced Cell and Molecular Biology	
Select at least 12 credits of BIOL at the 3000 level or higher		12
Select three credits of BIOL at the undergraduate level		3
Select six credits of Electives at the undergraduate level		6
<b>Credits</b>		36

#### Year 4

<a href="#">BIOL 4990</a>	Honours Thesis Project 1	4
<a href="#">BIOL 4995</a>	Honours Thesis Project 2	4
Select at least one of:		3
<a href="#">BIOL 3165</a>	Conservation Biology	
<a href="#">BIOL 4235</a>	Marine Biology	
Select at least one of:		4
<a href="#">BIOL 4140</a>	Animal Physiology	
<a href="#">BIOL 4245</a>	Developmental Biology	
Select at least six credits of BIOL at the 3000 level or higher		6
Select 9 credits of Electives at the undergraduate level		9
<b>Credits</b>		30
<b>Total Credits:</b>		134

<sup>1</sup> MATH 1120 may be used as a substitute for MATH 1130



<a href="#">BIOL 4235</a>	<a href="#">Marine Biology</a>	
Select at least one of:		<u>4</u>
<a href="#">BIOL 4140</a>	<a href="#">Animal Physiology</a>	
<a href="#">BIOL 4245</a>	<a href="#">Developmental Biology</a>	
Select at least six credits of BIOL at the 3000 level or higher		<u>6</u>
Select <del>12-9</del> credits of Electives <a href="#">at the undergraduate level</a>		<del>129</del>
<b>Credits</b>		<del>3230</del>
<b>Total Credits:</b>		<del>138</del> <u>134</u>

<sup>1</sup> MATH 1120 may be used as a substitute for MATH 1130

### Electives

~~As part of this program, students are required to complete 27 credits of electives. These must satisfy the General Requirements for 18 credits of breadth as stated above. The following courses are recommended as electives:~~

Electives Course List		
<a href="#">ANTH 3242</a>	<a href="#">A Survey of the Primates</a>	<u>3</u>
<a href="#">ASTR 1105</a>	<a href="#">Basic Astronomy</a>	<u>3</u>
<a href="#">ASTR 3111</a>	<a href="#">Exploring Stars &amp; Galaxies</a>	<u>3</u>
<a href="#">BIOL 2330</a>	<a href="#">Microbiology</a>	<u>4</u>
<a href="#">BIOL 3330</a>	<a href="#">Microbiology II</a>	<u>4</u>
		<u>4</u>

### Co-operative Education Option

The Bachelor of Science (Honours), Major in Biology degree is offered with a Cooperative Education Option. Co-operative Education gives a student the opportunity to apply the skills gained during academic study in paid, practical work experience semesters. Degree students can complete a minimum of three work terms while completing their degree. Work terms generally occur full-time in separate 4 month work semesters. Work semesters alternate with academic study.

Students wishing to enter and participate in the Co-operative Education Option must meet the following requirements:

### Declaration and Entrance Requirements

- Declaration into the Bachelor of Science (Honours), Major in Biology program
- Declaration of the co-operative education option prior to completion of 90 credits for the Bachelor of Science (Honours), Major in Biology program
- Minimum GPA of 2.7

### Program Continuance Requirements

- Completion of COOP 1101 prior to completing 90 credits
- Minimum GPA of 2.7
- Instructor permission

### Co-op Course Requirements

The Co-operative Education designation requires successful completion of the following courses:

<a href="#">BIOL 4260</a>	Human Neural, Excretory and Endocrine Systems	3
	Human Genetics	4
<a href="#">BIOL 4320</a>	Analytical Chemistry	4
<a href="#">CHEM 2315</a>	Physical Chemistry	3
<a href="#">CHEM 3310</a>	Introduction to Computer Literacy	3
<a href="#">CPSC 1100</a>	Post University Transition	3
<a href="#">EDUC 4100</a>	Environmental Toxicology	3
<a href="#">ENVI 2305</a>	Environmental Legislation	3
<a href="#">ENVI 2405</a>	Environment and Society	3
<a href="#">ENVI 3112</a>	Nutrition	3
<a href="#">HSCI 3225</a>	Entomology	
<a href="#">HORT 3310</a>		

### Co-operative Education Option

The Bachelor of Science ([Honours](#)), Major in Biology degree is offered with a Cooperative Education Option. Co-operative Education gives a student the opportunity to apply the skills gained during academic study in paid, practical work experience semesters. Degree students can complete a minimum of three work terms while completing their

Required		
<a href="#">COOP 1101</a>	Introduction to Professional and Career Readiness	1
<a href="#">COOP 1150</a>	Co-op Work Semester 1	9
<a href="#">COOP 2150</a>	Co-op Work Semester 2	9
<a href="#">COOP 3150</a>	Co-op Work Semester 3	9
Optional		
<a href="#">COOP 4150</a>	Co-op Work Semester 4	
Credits		28

Note: COOP courses must be completed in ascending numerical order. Contact the Co-op office for information about the possibility of part-time work terms. COOP courses may be used only to satisfy the Co-op designation and cannot be used to satisfy other curricular requirements of the program.

### Additional Requirements

In addition to the requirements stated above, all Co-op students must satisfy the General Co-operative Education Requirements.

### Credential Awarded

Upon successful completion of this program, students are eligible to receive a **Bachelor of Science (Honours), Major in Biology, Co-operative Education Option**.

degree. Work terms generally occur full-time in separate 4 month work semesters. Work semesters alternate with academic study.

Students wishing to enter and participate in the Co-operative Education Option must meet the following requirements:

#### **Declaration and Entrance Requirements**

- Declaration into the Bachelor of Science, Major in Biology program
- Declaration of the co-operative education option prior to completion of 90 credits for the Bachelor of Science, Major in Biology program
- Minimum GPA of 2.7

#### **Program Continuance Requirements**

- Completion of COOP 1101 prior to completing 90 credits
- Minimum GPA of 2.7
- Instructor permission

#### **Co-op Course Requirements**

The Co-operative Education designation requires successful completion of the following courses:

<b><u>Required</u></b>		
<a href="#"><u>COOP 1101</u></a>	<a href="#"><u>Introduction to Professional and Career Readiness</u></a>	<a href="#"><u>1</u></a>
<a href="#"><u>COOP 1150</u></a>	<a href="#"><u>Co-op Work Semester 1</u></a>	<a href="#"><u>9</u></a>
<a href="#"><u>COOP 2150</u></a>	<a href="#"><u>Co-op Work Semester 2</u></a>	<a href="#"><u>9</u></a>
<a href="#"><u>COOP 3150</u></a>	<a href="#"><u>Co-op Work Semester 3</u></a>	<a href="#"><u>9</u></a>
<b><u>Optional</u></b>		

<a href="#">COOP 4150</a>	Co-op Work Semester 4	
<a href="#">Credits</a>		<a href="#">28</a>
<p><u>Note: COOP courses must be completed in ascending numerical order. Contact the Co-op office for information about the possibility of part-time work terms. COOP courses may be used only to satisfy the Co-op designation and cannot be used to satisfy other curricular requirements of the program.</u></p> <p><b><u>Additional Requirements</u></b></p> <p><u>In addition to the requirements stated above, all Co-op students must satisfy the General Co-operative Education Requirements.</u></p> <p><b>Credential Awarded</b>  Upon successful completion of this program, students are eligible to receive a <b>Bachelor of Science (Honours), Major in Biology, <u>Co-operative Education Option</u>.</b></p>		

List any new, revised or discontinued courses associated with this program change			
Course Subject Code	Course Number	Descriptive Title, hyperlinked to course outline	New, Revised, or Discontinued
BIOL	3150	<a href="#">Evolutionary Biology</a>	New

## 2. Curriculum Consultations

Please consult with the Office of the Provost as additional consultations may be required depending on the scope of the proposed program changes.

For consultees, please consider the following questions when providing your feedback to the Proponent:

- Does your department/unit support the proposed curriculum? Provide rationale for support/non-support.
- How does the proposed curriculum impact your department/unit?
- How does the proposed curriculum impact your program?
- Is there potential for curricular overlap with current offerings?

Name	Department, Program and/or Faculty	Comments	Date Consulted
Jennifer O'Brien	Office of the Provost (oPro)		04 July 2023
Virginia Vandenberg	Office of the Provost (oPro)		10 July 2023

**Note:** No consultations in addition to those listed on page 2 were requested.

### 3. Financial Assessment Questions

#### Financial Assessment Questions

The following information will help determine whether there is a budgetary impact to the proposed program changes, and what additional information and consultation will be required.

Please note that all additional budgetary requests in support of the proposed program change require approval from the Dean and the Provost, and additional financial documents may be required.

<b>Change in number of credits</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, please provide details: Total program credits required is reduced (134 down from 140) as recommended by our approved Program Review.
<b>Change in space requirements</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, please provide details:
<b>Change in equipment requirements</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, please provide details:
<b>Change in support requirements</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, please provide details: Addition of lab to BIOL 3150 will require a laboratory instructor, which may necessitate auxiliary hiring. We have added this budgetary request for the upcoming Fiscal year. If it is not approved, we may be able to absorb this one lab section into existing staff workloads, or switch offerings to accommodate the added lab section.

Please attach any financial document if required.

## Appendix A - Curriculum Map - Bachelor of Science in Biology, Major and Honours

PROGRAM COURSES WITH COURSE LEARNING OUTCOMES	PROGRAM LEARNING OUTCOMES										
	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8	PLO#9	PLO#10	PLO#11
	Explain chemical, physical and mathematical concepts and relate them to biological structures, functions and processes.	Explain biological concepts and processes at the molecular and cellular levels.	Explain biological concepts and processes at the organismal, ecological, and biosphere levels.	Synthesize knowledge to compare key characteristics of the structure, function, development, and adaptations of organisms and acellular entities.	Apply the scientific method in designing and conducting experiments to investigate various natural phenomena.	Demonstrate competence in the safe practice and use of scientific instruments and equipment in both the laboratory and the field by following appropriate procedures.	Critically analyze problems, interpret data, and develop evidence-based solutions by applying knowledge and understanding of scientific principles.	Apply appropriate computational techniques, tools, models, and formulae to analyze and evaluate biological data.	Communicate and synthesize scientific information from a variety of sources in oral, visual, and written formats.	Evaluate the ethics of advances in biological knowledge, practice, understanding, and technology as they relate to contemporary world issues.	Develop teamwork and leadership skills through collaborative work in the laboratory, classroom, or field to address biological problems.

[Calendar link to Bachelor of Science \(Honours\) Major in Biology](#)

[Calendar link to Bachelor of Science \(Honours\), Major in Biology](#)

For each CLO (course learning outcome), the PLO(s) (program learning outcome) it satisfies are indicated, and at which level. The three levels are:

Introduced [1]: Course learning outcomes that concentrate on knowledge or skills related to the program outcomes at a basic level or skills at an entry-level of complexity.

Developing [D]: Course level outcomes that demonstrate learning at an increasing level of proficiency of the program level outcome as well expanding complexity.

Advanced (A): Course level outcomes that demonstrate learning related to the program level outcome with an increasing level of independence, expertise and sophistication or integrate the use of content or skills in multiple levels of complexity.

[illegible]

PROGRAM COURSES WITH COURSE LEARNING OUTCOMES	PROGRAM LEARNING OUTCOMES										
	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8	PLO#9	PLO#10	PLO#11
	Explain chemical, physical and mathematical concepts and relate them to biological structures, functions and processes.	Explain biological concepts and processes at the molecular and cellular levels.	Explain biological concepts and processes at the organismal, ecosystem, and biosphere levels.	Synthesize knowledge to compare key characteristics of the structure, function, development, and adaptations of organisms and acellular entities.	Apply the scientific method in designing and conducting experiments to investigate various natural phenomena.	Demonstrate competence in the safe practice and use of scientific instruments and equipment in both the laboratory and the field by following appropriate procedures.	Critically analyze problems, interpret data, and develop evidence-based solutions by applying knowledge and understanding of scientific principles.	Apply appropriate computational techniques, tools, models, and formulae to analyze and evaluate biological data.	Communicate and synthesize scientific information from a variety of sources in oral, visual, and written formats.	Evaluate the ethics of advances in biological knowledge, practice, understanding, and technology as they relate to contemporary world issues.	Develop teamwork and leadership skills through collaborative work in the laboratory, classroom, or field to address biological problems.
Research and assess secondary-source material using university-level methods and resources									I		
Integrate sources effectively into written work using quotation, paraphrase, and summary									I		
Document source material and format essays using MLA and/or APA citation methods to uphold the principles of academic integrity									I		
Recognize and correct errors in their own writing									I		
<b>MATH 1130 : Calculus for Life Sciences I</b>											
Understand and state the basic concepts of differential calculus	I										
Find limits of, differentiate, and graph algebraic and elementary transcendental functions	I						I				
Apply the above concepts and skills to the solution of applied problems, especially those of biological sciences	I						I				
<b>MATH 1230 : Calculus for Life Sciences II</b>											
Evaluate both definite and indefinite integrals	I										
Solve applied problems requiring integration (area between curves, volume of rotation, optional: probability density functions)	I						I				
Solve first order differential equations and analyze them qualitatively	I						I				
Use calculus to model biological systems	I						I				
<b>PHYS 1101 : Physics for Life Sciences I</b>											
Explain the concepts of vectors and their use in mechanics problems	I						I				
Apply Newton's laws of motion to point particles as well as extended objects	I										
Apply the concepts of work and energy to mechanics problems	I						I				
Apply the conservation laws to systems of particles	I						I				
Explain the basic concepts in simple harmonic motion, waves, sound, fluids and heat	I										
Use computers in the laboratory for the collection and analysis of data and in the presentation of results	I				I	I		I	I		I
<b>PHYS 1102 : Physics for Life Sciences II</b>											
Explain the concepts of currents, charges and electric fields in electrostatic and circuit problems	I										
Explain the concepts involving moving charges in magnetic fields	I										
Solve simple problems in finding magnetic fields produced by moving charges	I						I				
Explain electromagnetic induction	I										
Solve both geometric and physical optics problems	I						I				
Explain some of the basic concepts of nuclear physics and radioactivity	I										
Use computers in the laboratory for the collection and analysis of data and in the presentation of results	I				I	I		I	I		
Discuss applications of course topics to the life sciences	I										I
<b>Select three credits of ENGL at the undergraduate level</b>											
<b>BIOL 2320 : Genetics</b>											
Solve problems in applied genetics using classical genetic techniques	D						D	D			
Understand and apply recombinant DNA technologies and techniques in classroom and laboratory environments	D	D			D	D	D	D	D		D
Perform laboratory experiments, critically analyze and present data using current formats					D	D	D	D	D		D
Discuss and evaluate the ethics of current topics in genetics							D			I	I
Research and present a selected topic in genetics from primary sources							D		D	I	D
Compare and contrast the molecular structure of genes and chromosomes in prokaryotes and eukaryotes, and how information is transmitted from genotype to phenotype		D		D							
Describe mutations at genome, chromosome, and gene levels and use this knowledge to solve genetics problems	D	D		D			D	D			
Demonstrate competence using current laboratory and computational techniques in genetics	D				D	D		D			
<b>BIOL 2321 : Cell Biology</b>											
Describe the structure, function, and subcellular location of a variety of organelles, and compare and contrast them in cells with different specializations.		D		D							
Explain the structure and function of the eukaryotic plasma membrane and how this membrane relates to the internal endomembrane system.		D		D							
Differentiate between methods of transporting materials across membranes		D		D							
Explain the processes of transcription and translation required to form a nascent protein, and trafficking the nascent protein to its destination.		D									
Compare and contrast the structures and functions of different cytoskeletal components.		D									
Explain basic paradigms of cell signaling and how signaling is used to regulate progression of the cell through the cell cycle.		D									
Discuss methods of intercellular communication, cell adhesion, and cell motility.		D									
Interpret microscopy images and demonstrate the microscopy techniques required to view specimens at up to 1000x total magnification.		D		D		D		D			
Perform experimental procedures outlined in a lab manual and analyze experimental results based on an understanding of cellular structures and processes.					D	D	D	D	D		D
Compose a laboratory report of an experiment (completed by the student) using scientific language and format.							D		D		
<b>BIOL 2322 : Ecology</b>											
Describe the functional and ecological roles of organisms explain their significance	D		D	D						I	
Compare how abiotic and biotic factors affect the distribution and abundance of organisms	D		D	D						I	
Examine the adaptations of organisms to their environment and how populations, communities, and ecosystems change over time	D		D	D						I	
Apply ecological concepts to make predictions and solve problems.	I		I	I			D	I			
Display competence in using a range of equipment to collect and interpret data and information in both laboratory and field environments.			I		I	D	D	D			D



PROGRAM COURSES WITH COURSE LEARNING OUTCOMES	PROGRAM LEARNING OUTCOMES										
	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8	PLO#9	PLO#10	PLO#11
	Explain chemical, physical and mathematical concepts and relate them to biological structures, functions and processes.	Explain biological concepts and processes at the molecular and cellular levels.	Explain biological concepts and processes at the organismal, ecosystem, and biosphere levels.	Synthesize knowledge to compare key characteristics of the structure, function, development, and adaptations of organisms and acellular entities.	Apply the scientific method in designing and conducting experiments to investigate various natural phenomena.	Demonstrate competence in the safe practice and use of scientific instruments and equipment in both the laboratory and the field by following appropriate procedures.	Critically analyze problems, interpret data, and develop evidence-based solutions by applying knowledge and understanding of scientific principles.	Apply appropriate computational techniques, tools, models, and formulae to analyze and evaluate biological data.	Communicate and synthesize scientific information from a variety of sources in oral, visual, and written formats.	Evaluate the ethics of advances in biological knowledge, practice, understanding, and technology as they relate to contemporary world issues.	Develop teamwork and leadership skills through collaborative work in the laboratory, classroom, or field to address biological problems.
Generate well-researched critique(s) on scientific work.	D			D	D		D	D	D		
Apply the scientific method to design, conduct, and report on experimental investigations.	D				D	D	D	D	D		D
<b>BIOL 2421 : Cellular Biochemistry</b>											
Describe the properties of aqueous biological systems.	D	D									
Describe the biochemical properties of amino acids and proteins using myoglobin and hemoglobin as examples.	D	D									
Describe the mechanism of serine protease enzymes.	D	D									
Interpret data and solve problems regarding the rates of enzymes that display Michaelis-Menten kinetics.		D					D				
Describe the structure, nomenclature, chemical properties and biochemical function of carbohydrates.		D									
Discuss the importance of phosphoryl group transfers for energy cycling in cells, especially the bioenergetics of ATP/ADP.		D						D			
Describe key pathways of carbohydrate metabolism and the regulation of carbohydrate metabolism, including glycogen synthesis and degradation.		D									
Understand and summarize scientific literature related to class content		D							D		D
<b>CHEM 2320: Organic Chemistry I</b>											
Recognize and name a variety of organic compounds using the IUPAC system of nomenclature	D										
Explain the effects of intermolecular forces on the physical properties of organic compounds	D										
Solve a variety of problems dealing with the structural basis of organic chemistry	D						D				
Describe the conditions and products formed in the important organic reactions	D										
Describe the mechanisms of the important organic reactions using the correct conventions to represent the movement of electrons	D										
Determine the identity of organic compounds based upon spectroscopic evidence	D					D		D			
Solve a variety of synthetic problems in which simple organic compounds are converted into more complex compounds	A						D				
<b>CHEM 2420: Organic Chemistry II</b>											
Recognize and name a variety of organic compounds using the IUPAC system of nomenclature	D										
Use molecular orbital theory to understand the concept of aromaticity	D										
Describe the conditions and products formed in the important organic reactions	D										
Describe the mechanisms of the important organic reactions using the correct conventions to represent the movement of electrons	D										
Determine the identity of organic compounds based upon spectroscopic evidence	D					D		D			
Solve a variety of synthetic problems in which simple organic compounds are converted into more complex compounds	A						D				
Describe the chemistry of fats, carbohydrates and proteins as further examples of the chemistry of the functional groups already studied	D										
<b>MATH 2335 : Statistics for Life Sciences</b>											
Summarize data using appropriate tables, summary statistics and plots	D						D		D		
Interpret and use descriptive statistics	D						I				
Work with and apply elementary probability theory	D						I	I			
Apply discrete and continuous random variables and probability distributions	D							I			
Apply sampling distributions	D							I			
Apply point estimation	D										
Construct confidence intervals for mean, proportion, variance, difference between means, and difference between proportions	D						D				
Perform tests of means, proportions, standard deviations, differences between means, differences between proportions	D						D				
Apply elementary probability theory and statistics to problems in life sciences	A						D	D			
Perform regression analyses	A						I				
Use statistical software such as EXCEL	D						D	D			
<b>Select six credits of Electives (Electives can be found towards the end under section titled Electives)</b>											
<b>Required 3000 Courses: BIOL 3150, 3180</b>											
<b>BIOL 3150 : Evolutionary Biology</b>											
Evaluate principles of evolutionary theory and incorporate them appropriately in discussions and assessments							D		D	D	D/A
Describe scientific evidence that supports evolution		D	D	D						D	
Apply concepts of evolutionary theory to address biological problems		D	D/A	A			D				
Use relevant research tools and applications to conduct simple evolutionary biology analyses	D							D			
Manage and organize class discussions									D	D	A
Analyze, interpret, and present results of research on evolutionary biology topics from scientific literature					D	D	D	D	D	D	
Conduct evolutionary experiments and interpret the results						D	D	D			D
<b>BIOL 3180 : Life Science Research Methods</b>											
Research topics in the biological and health sciences, using appropriate resources		D					D		D	D	
Assess evidence for its research validity		D	D	D			D		D	D	D
Incorporate the appropriate sampling, measurement, data collection and data analysis strategies into a research design	D							D	D		
Interpret and design quantitative, qualitative and mixed studies	D	D	D		D			D	D		
Design studies wherein participant inclusion, research design and research ethics conform to contemporary professional expectations				D	D				D	D	
Implement, analyze and critique quantitative, qualitative research and mixed studies	D	D	D		D		D	D	D		D
<b>Select at least one of BIOL 3215 or BIOL 3225</b>											
<b>BIOL 3215 : Zoology</b>											

PROGRAM COURSES WITH COURSE LEARNING OUTCOMES	PROGRAM LEARNING OUTCOMES										
	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8	PLO#9	PLO#10	PLO#11
	Explain chemical, physical and mathematical concepts and relate them to biological structures, functions and processes.	Explain biological concepts and processes at the molecular and cellular levels.	Explain biological concepts and processes at the organismal, ecosystem, and biosphere levels.	Synthesize knowledge to compare key characteristics of the structure, function, development, and adaptations of organisms and acellular entities.	Apply the scientific method in designing and conducting experiments to investigate various natural phenomena.	Demonstrate competence in the safe practice and use of scientific instruments and equipment in both the laboratory and the field by following appropriate procedures.	Critically analyze problems, interpret data, and develop evidence-based solutions by applying knowledge and understanding of scientific principles.	Apply appropriate computational techniques, tools, models, and formulae to analyze and evaluate biological data.	Communicate and synthesize scientific information from a variety of sources in oral, visual, and written formats.	Evaluate the ethics of advances in biological knowledge, practice, understanding, and technology as they relate to contemporary world issues.	Develop teamwork and leadership skills through collaborative work in the laboratory, classroom, or field to address biological problems.
Compare major morphological features, anatomical structures, organ systems, and developmental characteristics among select invertebrate and vertebrate animal taxa in discussions and assessments.				D/A (animals only)			D		D		
Contrast ancestral and derived characteristics of major animal taxa in both written and phylogenetic form.				D (animals only)			D		D		
Compare key adaptations, ecological roles, and trends in evolution of select species within the animal phyla in discussions and assessments.			D	D (animals only)					D		
Differentiate between the anatomy of different models of select animal taxa that you will assemble.				D (animals only)					D		D
Create accurate, labelled images of morphological features of animals that you and your fellow students dissect.			D (org level only)	D (animals only)		D			D	D	D
Design a taxonomic field survey in a select habitat in a group.	D				D/A	D/A	D	D	D		D
Synthesize the results of your group's field survey into a poster presentation.					D/A						D
<b>BIOL 3225 : Biology of Plants: An Ecological and Evolutionary Perspective</b>											
Identify, describe and compare major groups of plants				A							
Identify plants growing in British Columbia and understand some of their traditional uses by first nations				A					A	D	D
Analyze the structural characteristics of plant cells, tissues, and organs and evaluate their functions	A			A							
Investigate and explain the functional design of major life support processes in plants (e.g. photosynthesis, transport of water and sugars)		A									D
Describe and analyze anatomical and molecular patterns of evolution in plants			A	A			D	D			
Evaluate current hypotheses that pertain to plant structure/function and land plant evolution	A		A	A			D		D		A
Carry out laboratory and field activities, including preparation of plant material for observation with compound and dissecting microscopes, preparation of herbarium specimens, identification of unknown plants with the aid of dichotomous keys, and understand the uses of plants as medicines and/or food					D	D					D
Describe and select appropriate scientific methodology in conducting observational and experimental investigations of plants					D	D	D				D
Describe and select appropriate scientific methodology in conducting observational and experimental investigations of plants					D	D	D	D?			D
<b>Select at least one of BIOL 3320 or BIOL 3321</b>											
<b>BIOL 3320 : Molecular Genetics</b>											
Produce solutions to genetics problems related to course content	A				A		A	A	A		A
Distinguish between various mechanisms of gene regulation	A	A	A	D							
Distinguish between various mechanisms of DNA repair	A		A	D							
Conduct experiments using proper lab techniques in molecular biology including polymerase chain reaction, work with bacteria and plasmids, gel electrophoresis, etc.	A				A	A	A	A	A	D	A
Investigate the effects of RNA interference on gene expression using model species	A	A		D							
Investigate the mutagenicity of chemical substances	D		A	D							
Analyze DNA sequence data to deduce and categorize mutations	A	A		A	A		A	A			
Prepare and deliver presentation(s) on topic(s) related to course content	D	A	D	D			A		A	D	A
<b>BIOL 3321 : Advanced Cell and Molecular Biology</b>											
Describe transcriptional, posttranscriptional and translational control of gene expression in Bacteria and Eukaryotes and the techniques used to study these control mechanisms		A		A							
Differentiate between the types of stem cells		A		A							
Outline the mechanisms involved in cell death		A		A							
Contrast the signaling pathways associated with G-Protein-coupled-Receptors (GPCRs) and Receptor tyrosine kinases (RTKs)		A		A							
Differentiate between innate, antibody and T-cell mediated immune responses		A		A							
Contrast between healthy cells and tumor cells		A		A							
Provide examples of cancer-critical genes and their role in the causation of cancer		A		A							
Analyze experimental data and make logical conclusions with reference to experimental controls					A	A	A	A	A		D
Communicate an understanding of laboratory content in written format									A		
<b>Select at least 12 credits of BIOL at the 3000 level or higher (additional BIOL courses at the end)</b>											
<b>BIOL 3110: Animal Behaviour</b>											
Describe central concepts and theories of animal behaviour and to place these into a conceptual framework based on broader biological principles	D		D (but organismal and up)	D (animals, but not the others)					D		
Describe current empirical and theoretical approaches to the study of animal behaviour				D					D		
Review primary scientific publications in animal behaviour				D			D		D		D
Conduct basic behavioural experiments and interpret the results	D			D	D	D	D	D			D
<b>BIOL 3165 : Conservation Biology</b>											
Explain ecological principles and concepts of conservation biology including biodiversity, population dynamics and human impacts on the biosphere			A								
Explain the current and potential future challenges facing conservation biologists on a local, regional and global scale			A				D			D	
Review and critically appraise scientific literature and media reports relevant to biological conservation issues							D			D	
Evaluate and debate ecological, social, economic and political considerations in making conservation management decisions and communicate a clear scientific perspective							D		D	D	
Research, evaluate and critique current conservation policies in Canada and the role played by NGOs							D		D	D	
Integrate and apply the principles and tools of conservation biology to design a conservation management plan for a threatened or endangered species							A	D	A		

	PROGRAM LEARNING OUTCOMES										
	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8	PLO#9	PLO#10	PLO#11
	Explain chemical, physical and mathematical concepts and relate them to biological structures, functions and processes.	Explain biological concepts and processes at the molecular and cellular levels.	Explain biological concepts and processes at the organismal, ecosystem, and biosphere levels.	Synthesize knowledge to compare key characteristics of the structure, function, development, and adaptations of organisms and acellular entities.	Apply the scientific method in designing and conducting experiments to investigate various natural phenomena.	Demonstrate competence in the safe practice and use of scientific instruments and equipment in both the laboratory and the field by following appropriate procedures.	Critically analyze problems, interpret data, and develop evidence-based solutions by applying knowledge and understanding of scientific principles.	Apply appropriate computational techniques, tools, models, and formulae to analyze and evaluate biological data.	Communicate and synthesize scientific information from a variety of sources in oral, visual, and written formats.	Evaluate the ethics of advances in biological knowledge, practice, understanding, and technology as they relate to contemporary world issues.	Develop teamwork and leadership skills through collaborative work in the laboratory, classroom, or field to address biological problems.
PROGRAM COURSES WITH COURSE LEARNING OUTCOMES											
Participate in activities that contribute to local conservation initiatives											D
Select three credits of BIOL at the undergraduate level											
Select six credits of Electives (Electives can be found towards the end)											
Select at least one of BIOL 4140 or BIOL 4245											
BIOL 4140 : Animal Physiology											
Apply fundamental physiological principles to biological function of animals at the cellular, systemic, and organismal levels		A	A								
Compare and contrast the features of physiological systems across animal groups		A	A	A							
Explain the role of evolutionary history on the structure of physiological systems across animal taxa				A							
Predict the outcome of perturbation within a physiological system				A			A				
Explain how the roles of different physiological systems integrate to influence organism function, survival and reproduction				A							
Connect the features of one or more physiological systems of an animal to its habitat			A	A							A
Critique peer-reviewed, published articles on topics in animal physiology							A				
Prepare a term paper related to a current issue in animal physiology									A		
Prepare material for examination of physiological systems						A					A
Perform experimental manipulations to examine physiological function					A	A					A
Collect data from experimental manipulations of physiological systems					A		A				A
Analyse and interpret data using appropriate statistical methods					A		A	A			A
Summarize experimental results									A		A
BIOL 4245 : Developmental Biology											
Describe the key stages of development in a range of organisms and explain the significance of these stages			A	A							
Compare and contrast patterns of development in a range of vertebrate and invertebrate organisms and discuss reasons for the differences observed		A	A	A							
Apply concepts in developmental biology to animal anatomy and physiology		A	A								
Critically evaluate current literature in developmental biology through discussions and oral presentations							A				A
Perform classical experiments in the field of developmental biology							A				A
Collect, analyze, interpret and present results of novel laboratory investigations pertaining to the development of an invertebrate model organism					A	A	A	D			A
Communicating an understanding of content and procedures in written format through quizzes, problem sets, assignments and reports									A		A
Select at least one of BIOL 3165 (see above) or BIOL 4235											
BIOL 4235 : Marine Biology											
Describe the physical parameters of the marine environment and differentiate among dissimilar marine habitats	A										
Explain how the distribution and abundance of marine organisms is influenced by abiotic and biotic factors	A		A	A							
Describe organismal adaptations to the marine environment	A		A	A							
Explain important ecological relationships among different marine organisms and how they influence community structure											
Compare and contrast terrestrial and marine ecosystems in terms of physical parameters and ecological principles governing community structure and stability	A										
Compare and contrast key characteristics of different marine habitats, e.g. rocky versus soft-bottom intertidal zone, temperate versus tropical	D										
Develop an understanding of the scope of human impacts on the ocean										D/A	
Critique journal articles											
Develop a research proposal for a field research project					A		A		A		A
Work in a group to carry out field study					A	A	A		A		A
Produce a comprehensive scientific report, based on results from field study, according to guidelines for authors submitting manuscripts for publication					A		A		A		
Present research results from field study Field Trips					A	A	A		A		
Identify organisms that occur in our local area and describe major aspects of their biology and ecological relationships with other organisms	A				A		A		A		A
Record accurate field trip observations in a field notebook					A	A					A
Collect, analyze and interpret field or lab data					A	A	A	A			A
Select at least 6 credits of BIOL at the 3000 level or higher (additional BIOL courses at the end)											
BIOL 4150 : Evolutionary Biology (Discontinued after 2 years)											
Compare principles of evolutionary theory in discussions and assessments	A	A	A	A			A		A		
Describe scientific evidence that supports evolution in discussions and assessments	A		A	A			A		A	A	
Apply concepts of evolutionary theory to address biological problems	A	A	A	A	A				A		
Conduct simple evolutionary biology analyses using relevant research tools and applications	A		A	A			A	A	A	A	
Design and facilitate presentations and/or discussions on the results of research on evolutionary biology topics from scientific literature	A	A	A	A			A	A	A	A	A
Develop an original research proposal in evolutionary biology		A	A	A	A		A		A	A	
Evaluate and critique peer work in written and verbal form				A					A		A
Select 9 credits of Electives (Electives can be found towards the end)											
For Major in Biology: In Year 4, the student can select one of the following groups											

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	Explain chemical, physical and mathematical concepts and relate them to biological structures, functions and processes.	Explain biological concepts and processes at the molecular and cellular levels.	Explain biological concepts and processes at the organismal, ecosystem, and biosphere levels.	Synthesize knowledge to compare key characteristics of the structure, function, development, and adaptations of organisms and acellular entities.	Apply the scientific method in designing and conducting experiments to investigate various natural phenomena.	Demonstrate competence in the safe practice and use of scientific instruments and equipment in both the laboratory and the field by following appropriate procedures.	Critically analyze problems, interpret data, and develop evidence-based solutions by applying knowledge and understanding of scientific principles.	Apply appropriate computational techniques, tools, models, and formulate to analyze and evaluate biological data.	Communicate and synthesize scientific information from a variety of sources in oral, visual, and written formats.	Evaluate the ethics of advances in biological knowledge, practice, understanding, and technology as they relate to contemporary world issues.	Develop teamwork and leadership skills through collaborative work in the laboratory, classroom, or field to address biological problems.
Group A											
BIOL 4900: Special Topics							A			A	A
Critically analyze key issues in a particular field of biological research							A			A	A
Discuss peer-reviewed research papers							A			A	A
Evaluate issues requiring further research							A		A	A	A
Select three credits of BIOL at the 3000 level or higher											
Group B											
BIOL 4199: Research Project 1											
Submit an application to the Institutional Research Ethics Board as required					A						
Develop a research proposal					A						A
Conduct a literature review in the area of the proposed research							A		A		
Prepare a budget for the research					A		A		A		
Prepare a timeline for the proposed experiment(s)					A		A		A		
Organize any equipment/materials required to carry out the research					A						
Manage time effectively in order to complete phases within given timelines					A		A				
Maintain effective communication with supervisor through regularly scheduled meetings									A		A
Present the proposal in an oral format									A		
BIOL 4299: Research Project 2											
Conduct the research project developed in BIOL 4199					A		A				A
Maintain a laboratory notebook					A				A		
Manage time effectively so the research project is conducted according to the timeline previously outlined in BIOL 4199					A		A				
Analyze the experimental results using appropriate statistical methods							A	A			
Defend the conclusions drawn from the research										A	A
Assess the value of the research in context of previously published material										A	A
Present the research in standard scientific formats such as: orally or by poster presentation									A		
For Major in Biology (Honours):											
BIOL 4990 : Honours Thesis Project 1											
Formulate a testable research hypothesis or research question					A						
Conduct a review of the scientific literature					A		A		A		
Describe an appropriate methodology to test the research hypothesis or answer the research question					A						
Explain, in detail, the specific biological system(s) relevant to the research area					A						
Competently operate any equipment required for the project						A					
Conduct pilot work (e.g., feasibility analysis or practice of protocols, preliminary experiments) to help formulate the research proposal					A	A					
Write and present a research proposal selected for the Honours Thesis that contains:a review of the literature a statement of hypothesis or research question an overview of proposed research project in scientific and lay language a description of the planned methods including a data analysis plan project timelines and budget a description of how the project will advance biological science a knowledge dissemination plan					A		A		A		
Provide oral and written progress reports on project status							A		A		
Conduct peer review of research proposals							A			A	A
Respond to and integrate relevant feedback from peers in their research proposals							A			A	A
Determine and complete the necessary training requirements to conduct their research						A					
Show an understanding of the ethical issues surrounding the collection and reporting of research data										A	
Submit an application to the institutional Research Ethics Board and/or Animal Care Committee as required										A	
Explain how different contextual factors may influence choice of research topics and methods									A		A
BIOL 4995 : Honours Thesis Project 2											
Safely implement established research protocols to record relevant data within budget and time constraints					A						
Review the relevant literature							A		A		
Problem-solve and trouble-shoot research procedures					A		A				
Process, analyze, and assess relevant research data at an advanced level							A	A			
Incorporate feedback on drafts of research results									A		A
Present and defend the research results									A		A
Clearly articulate implications of research findings within the context of the field									A	A	
Critique original project proposal in light of research findings							A		A	A	
Evaluate research outcomes to discern potential errors, alternate interpretations									A		
Clearly identify and articulate avenues for future research hypotheses									A		
Co-Operative Education Option											
COOP 1101 : Introduction to Professional and Career Readiness											
Identify the philosophy and goals of Co-operative Education and WIL											
Describe the roles and responsibilities of the partners in Co-operative Education and WIL											
Locate and research specific organizations for potential employment opportunities											
Identify the personal qualities, knowledge and skills that meet job requirements											
Prepare an effective resume, cover letter and introduction to online portfolios									D		
Apply appropriate professional communication and job interview skills									D		
COOP 1150 : Co-op Work Semester 1	NOTE: Mapping will depend on personal learning goals and the specific type of work performed during Co-op. It is assumed that the work will be in the Biological Sciences but details will vary.										
set realistic and achievable personal learning objectives for their worksite											
identifv skills and knowledgee that transfer to work from studies and prior life experience											

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identify skills and knowledge they acquire while at work, both in relation and addition to their personal learning objectives											D
behave professionally at their worksite											
produce the quality and quantity of work to meet employer/client expectations for their given worksite						D	D	D			
explain their working relationships and communications with others									D		
report how their work contributes to their organization and their broader community									D		
assess their interests and aptitudes in relation to their chosen field of study and work										D	
identify different sectors of the labour market relevant to their chosen field of study and work											D
identify leadership skills											
COOP 2150 : Co-op Work Semester 2	NOTE: Mapping will depend on personal learning goals and the specific type of work performed during Co-op. It is assumed that the work will be in the Biological Sciences but details will vary.										
set and achieve personal learning objectives related to more advanced courses than those set for their first worksite											
integrate skills and knowledge acquired on campus and from previous work experiences with those acquired in their workplace											
articulate the significance of personal behaviours and attitudes in their particular workplace									A		A
produce, in a proactive manner, the quality and quantity of work which meets or exceeds employer/client expectations						A	A	A			
interpret their working relationship with others and the broader structure of working relationships in their workplace											A
examine the significance of their work to their organization and their broader community											
identify their career interests											
differentiate sectors of the labour market relevant to their chosen field of study and work										A	
exhibit leadership skills											A
COOP 3150 : Co-op Work Semester 3	NOTE: Mapping will depend on personal learning goals and the specific type of work performed during Co-op. It is assumed that the work will be in the Biological Sciences but details will vary.										
set realistic and achievable personal learning objectives for their worksite that complement or surpass those for their previous worksite											
examine skills and knowledge they acquire while at work, both in relation and addition to their personal learning objectives											
exemplify professional behavior at their worksite											
proactively and efficiently produce the quality and quantity of work which meets or exceeds employer/client expectations						A	A	A			
analyze their working relationships and communications with others									A		A
compare how their work contributes to their organization and their broader community with their work in prior work terms											A
reassess their interests and aptitudes in relation to their chosen field of study and work											
analyze sectors of the labour market for their chosen field of study and work										A	
analyze leadership skills											A
Electives											
BIOL 2330 : Microbiology			D								
Describe the historical contributions of key scientists in the field of microbiology				D							
Contrast between prokaryotic microorganisms, eukaryotic microorganisms and acellular entities studied by microbiologists in terms of structure, biological role and taxonomy											
Describe the nutritional requirements and uptake mechanisms of bacteria	D		D								
Illustrate the effect of various environmental factors on microbial growth	D		D								
Classify physical and chemical methods of microbial control			D								
Recall the effect of chemotherapeutic agents on bacteria and how bacteria may develop resistance against such agents			D								
Illustrate mechanisms by which bacteria undergo horizontal gene transfer			D								
Summarize the key steps in the success of a bacterial pathogen and the host's response to pathogens					D	D	D		D		
Perform standard microbiological procedures using aseptic technique									D		
Communicate a knowledge and understanding of current topics in the field of microbiology									D		I
BIOL 3330 : Microbiology II											
Describe techniques used in the field of microbial ecology to enumerate, determine diversity, distribution and activities of microorganisms			A	A							
Contrast between the types of microbial interactions			A	A							
Give examples of the various types of microorganisms found in different ecosystems			D								
Discuss conditions that contribute to food spoilage and food poisoning			A								
Evaluate methods of food preservation			A								
Discuss techniques used in the field of clinical microbiology to identify pathogens			A								
Interpret information from scholarly articles									A		
Communicate a knowledge and understanding of topics in the field of microbiology including laboratory content									A		A
Participate in class discussions on student presented journal articles							D		D		
BIOL 3421 : Molecular Biochemistry								D			
Explain key pathways of lipid metabolism.		D		D							
Describe the synthesis and oxidation of amino acids, and relate both to nitrogen metabolism.		D		D							
Explain the integration and regulation of lipid, amino acid, and nucleotide metabolism, and connect these topics to health and disease.		D		D							
Classify hormones and explain their roles in human metabolism.		D									
Describe the structure and function of nucleotides, genes, and chromosomes.		A									

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Differentiate between prokaryotic and eukaryotic methods of DNA replication, transcription, translation, and control of gene expression. Summarize, present, and critique the findings of primary scientific literature related to class topics.	A								A		A
<b>BIOI 4320 : Human Genetics</b> Distinguish between several modes of inheritance of human genetic traits Compare and contrast different types of research methods used in human genetics Relate the use of different research methods in human genetics to the research context Analyze, Interpret and present results of research on human genetics topics from scientific literature Debate issues regarding ethical, social and legal implications of research in human genetics Lead class discussions	A						A A A	A	A	A	A  A