

Action Plan: Biology

Date Self-Study was submitted to AQA: October 11, 2024


Date of External Review: November 6, 2024

Institutional Response

Overall, this is a robust program review of the department of biology Associate Science and Diploma credentials. Langara College looks forward to engaging creatively with the department members on approaches to student recruitment and advising (particularly with respect to the program pathways that have been developed), and on review and potential revision of both courses (particularly in support of indigenization initiatives) and programs (particularly in support of revising the diploma in order to establish a more distinct, experientially focused credential).

We are also eager to support improved and regular engagement with EdTech and TCDC supports, particularly as the department explores potential of hybrid and/or more online components. The workload of lab support staff has been particularly highlighted in this review and will be critical to evaluate and to establish sustainable workloads for both faculty and instructional support staff moving forward.

Signed




August 12, 2025

Dean

Date

Signed



August, 20th, 2025

President and CEO &
Interim Provost & VP, Academic

Date

Recommendations from the Self-Study and External Review this Action Plan does NOT Address.

Provide a brief rationale for why each Recommendation cannot be addressed. Add or remove rows as necessary.

Recommendation	Self-Study or External Review (include p.#)	Rationale
Draft a report on the feasibility of offering microcredentials, either by packaging together particular courses that are currently offered and/or by generating new applied, experiential learning courses. If appropriate, implement a plan to start offering microcredentials.	Self-study p32	Department is unsure if this is the direction we want to pursue and may reconsider this in the future.
A list of student supports should be posted on the Biology website.	Self-study p33	This recommendation is already being addressed by the Department.
The College needs to fast-track the development of on-campus residences or other affordable housing options for students.	Self-study p61	Outside of the scope of the department.
Investigate why so many of our students are transferring to TRU and whether TRU's Open Learning courses should articulate with our course offerings. It may be pertinent to re-evaluate our articulation agreements for these courses.	Self-study p61	This recommendation is already being addressed by the Department.
Advocate for more resources to be made available to the various service departments (e.g., Accessibility Services, Counselling Services) so they can better support our department and our students.	Self-study p73	This recommendation is already being addressed by the Department.
Ensure that students who intend to transfer have access to well-informed advisors at Langara who can help them access relevant information for transfer.	External review p7	This recommendation is already being addressed by the Department.
Advocate for Accessibility Services to provide sufficient support so that these tasks are not being downloaded on to instructors and lab instructors.	External review p8	This recommendation is already being addressed by the Department.

Goal 1: Student Recruitment

Which [Academic Plan 2025 Lens or Lenses](#) does this Goal support? Add or remove rows as needed,

Academic Plan 2025 Lens (only include the title of the lens)
HOLISTIC STUDENT ENGAGEMENT AND SUPPORT

Planned Actions: What Planned Actions will the department complete to achieve this goal? Add or remove rows as needed.

Planned Actions	Led by	Begin on	Anticipated Completion	Notes
Establish faculty liaison positions to improve marketing and recruitment.	Kenneth Naumann & Linda Chang	Underway	End of 2027	
Create a mechanism for tracking and communicating with Biology alumni.	Joanna Woltosz & Rawa Ibrahim	June, 2025	End of Summer 2026	
Develop a program to recruit and train Biology student ambassadors.	Geoff Nemeth	Fall, 2025	End of 2027	

What Self-Study or External Review Recommendations do the Planned Actions support? Check the appropriate column to indicate if the Recommendation is from the Self-Study or External Review. Add or remove rows as needed.

Recommendation	Self-Study (specify page #)	External Review (specify page #)
Stable enrolment may not always persist, so we need to work closely with the college to support student recruitment and increase accessibility and attractiveness of our courses/programs.	32	
Investigate the feasibility of establishing a position for a faculty liaison who would work closely with Communications and Marketing, Langara Global, and the local community to promote the Biology department, recruit new students, retain current students, and promote connections with our alumni.	32	
Investigate the feasibility of establishing a position for an alumni liaison who maintains contact with our alumni and helps establish and maintain communities among our alumni who have transferred to various post-secondary institutions.	76	

Recommendation	Self-Study (specify page #)	External Review (specify page #)
Appoint a faculty liaison to support recruitment (e.g., coordinate with institutional recruiters), and foster alumni relations.		4
Look into options for having current students or recent alumni serve as “ambassadors” to help recruit and/or welcome new students.		4
Advocate for more effective marketing and sharing of the strengths of Langara Biology to prepare students for university transfer, with or without a credential.		9
Investigate the feasibility of establishing a position for an alumni liaison who maintains contact with our alumni and helps establish and maintain communities among our alumni who have transferred to various post-secondary institutions.		9

What resources will be used to achieve this Goal? Indicate if existing resources will be used or if additional resources are requested.

Resources
College support for release for Faculty Liaisons.
GROW funding for student ambassadors.
Connect with SCM
Connect with the Biology Club
Connect with Langara Foundation

Goal 2: Credential and Curriculum Development

Which [Academic Plan 2025 Lens or Lenses](#) does this Goal support? Add or remove rows as needed,

Academic Plan 2025 Lens (only include the title of the lens)
CURIOSITY, CREATIVITY, AND INNOVATION: CREATE THE FUTURE TOGETHER
HOLISTIC STUDENT ENGAGEMENT AND SUPPORT
TRANSFORMATIONAL LEARNING EXPERIENCES
SOCIAL RESPONSIBILITY/ COMMUNITY RELATIONSHIPS

Planned Actions: What Planned Actions will the department complete to achieve this goal? Add or remove rows as needed.

Planned Actions	Led by	Begin on	Anticipated Completion	Notes
Discontinue Co-op option for Associate of Science.	Melisa Hamilton	June, 2025	October, 2025	
Revise the Diploma to be distinct from the Associate of Science Degree.	Catherine Glass, Mario Moniz de Sa, & Kim Hruska	Fall, 2025	End of 2027	
Investigate whether to expand or remove co-op option for the diploma and report findings to the department.	Martin Lee & Garyen Chong	Mid July 2025	End of Dec 2025	
Improve communication of the pathways through our programs (i.e., website, posters).	Martha Nelson-Flower	Underway	Fall, 2025	
Review program-level learning outcomes and revise as necessary.	Melisa Hamilton & Kim Hruska	November, 2025	April, 2026	

What Self-Study or External Review Recommendations do the Planned Actions support? Check the appropriate column to indicate if the Recommendation is from the Self-Study or External Review. Add or remove rows as needed.

Recommendation	Self-Study (specify page #)	External Review (specify page #)
Although we added the Cooperative Education (Co-op) versions of our Diploma and Associate of Science Degree in 2017, no students have enrolled in them. A major reason for this is a lack of College-level support to facilitate contacts with potential	32	

Recommendation	Self-Study (specify page #)	External Review (specify page #)
employers and coordinate student placements. While we know that students, instructors, and employers collectively value Work-Integrated Learning (WIL) and hands-on experience, our Co-op programs are clearly unsuccessful in their current forms. They either need to be relaunched and bolstered by adequate support from Langara's Co-op department, or, if there is no support from the College to assist with Co-op placements, these two programs should be removed.		
Re-work the Diploma in Biology so it is distinct from the Associate of Science Degree in Biology. Develop and implement a plan to make the Diploma in Biology a more applied program. Clearly communicate the differences between each of our credentials to students.	32	
Develop a prerequisite map and ensure it is posted for students to see.	32	
Publish an up-to-date list of the second-year courses that are offered in each term, including recommendations on which courses to take first.	32	
Develop guided pathways for students who have different goals (i.e., university transfer students vs. students entering straight into the workforce). Develop streams or concentrations within the Associate of Science Degree to make it easier for students to define their direction of study.	32	
Review curriculum map and update as needed.	41	
Post the program learning outcomes and curriculum map in a location that is accessible to both instructors and students.	41	
Improve communication on the distinction between the Associate of Science in Biology and the Diploma in Biology.		3
For the Associate of Science Degree, discontinue the Co-op option.		3
For the Diploma, either re-commit to Co-op (with support from the Co-op Department), OR build on the strength of existing WIL opportunities.		3

What resources will be used to achieve this Goal? Indicate if existing resources will be used or if additional resources are requested.

Resources
Connect with Co-op office
Connect with SCM
Faculty release time to support development of programs and credentials.

Goal 3: Course Delivery

Which [Academic Plan 2025 Lens or Lenses](#) does this Goal support? Add or remove rows as needed,

Academic Plan 2025 Lens (only include the title of the lens)
CURIOSITY, CREATIVITY, AND INNOVATION: CREATE THE FUTURE TOGETHER
HOLISTIC STUDENT ENGAGEMENT AND SUPPORT
TRANSFORMATIONAL LEARNING EXPERIENCES
SOCIAL RESPONSIBILITY/ COMMUNITY RELATIONSHIPS

Planned Actions: What Planned Actions will the department complete to achieve this goal? Add or remove rows as needed.

Planned Actions	Led by	Begin on	Anticipated Completion	Notes
Investigate the feasibility of offering some sections of first-year courses as hybrid sections and revise scheduling of second-year courses (2x2 hour lectures) to improve accessibility.	Kim Hruska & Rawa Ibrahim	Underway	April, 2026	
Review the depth and breadth of content for each course and revise course-level learning outcomes as necessary.	Course committee chairs	Fall, 2025	End of 2028	
Investigate ways to standardize multi-section courses and report findings to the department.	Course committee chairs	2026	End of 2029	

What Self-Study or External Review Recommendations do the Planned Actions support? Check the appropriate column to indicate if the Recommendation is from the Self-Study or External Review. Add or remove rows as needed.

Recommendation	Self-Study (specify page #)	External Review (specify page #)
Develop a list of detailed learning outcomes for all BIOL courses.	60	
Explore alternate modes of course delivery for some sections / courses (i.e., hybrid delivery, 2x 2 hrs. vs. 4x 1hr lectures) as a means of making our courses more accessible.	61	
Develop a plan to promote more standardization across multiple sections of the same course, while still respecting instructor autonomy over their courses.	61	
Examine the depth and breadth of material covered in each of our courses to ensure our expectations and course workload are appropriate and equivalent to similar courses at other institutions.	61	
Review first year courses to ensure that they continue to prepare students for second year and/or transfer, without overwhelming them with content.		4
Examine the breadth and depth of material covered in courses to ensure expectations and workload are appropriate and equivalent to similar courses at other institutions.		6
Discuss how to balance consistency vs. instructor autonomy, with the goal of developing general department guidelines for multi-instructor courses.		6
If Biology proceeds with hybrid courses, we recommend that the department ensure that these courses, and especially any online components, are carefully designed and very well-organized.		7

What resources will be used to achieve this Goal? Indicate if existing resources will be used or if additional resources are requested.

Resources
Connect with TCDC
Connect with BCCAT and articulation reps.

Goal 4: Student Support, Engagement, and Success

Which [Academic Plan 2025 Lens or Lenses](#) does this Goal support? Add or remove rows as needed,

Academic Plan 2025 Lens (only include the title of the lens)
CURIOSITY, CREATIVITY, AND INNOVATION: CREATE THE FUTURE TOGETHER
HOLISTIC STUDENT ENGAGEMENT AND SUPPORT
TRANSFORMATIONAL LEARNING EXPERIENCES
SOCIAL RESPONSIBILITY/ COMMUNITY RELATIONSHIPS

Planned Actions: What Planned Actions will the department complete to achieve this goal? Add or remove rows as needed.

Planned Actions	Led by	Begin on	Anticipated Completion	Notes
Continue to investigate strategies to enhance incorporation and communication of essential skills in courses and programs and report findings to the department.	Kim Hruska	Underway	End of 2026	
Investigate and implement creation of a dedicated Biology student space.	Hayley Kellam	2026	End of 2028	
Support the creation of a Biology job board.	Ji Yong Yang & Martin Lee	Fall, 2025	End of 2027	
Explore using the Directed Studies course to provide more WIL opportunities.	Stephanie Cheung & Kyra Janot	Fall, 2025	Spring, 2027	
Review and revise labs to ensure all materials, techniques, and pedagogy are up to date.	Course committee chairs	Underway	End of 2029	
Increase our capacity for experiential and place-based learning through the development of more field trips and field schools.	Kyra Janot	Underway	End of 2028	
Investigate ways to increase program completion and implement necessary changes.	Janaina Brusco	June 2025	End of 2028	

What Self-Study or External Review Recommendations do the Planned Actions support? Check the appropriate column to indicate if the Recommendation is from the Self-Study or External Review. Add or remove rows as needed.

Recommendation	Self-Study (specify page #)	External Review (specify page #)
Review the course activities across all BIOL courses and generate a plan to provide additional opportunities for students to develop and practice essential skills, such as written/oral communication, group collaboration, and critical thinking. Survey options of courses from other disciplines (e.g., Science Literacy, School of Management, Communications, etc.) to determine which courses might facilitate student development of essential skills and implement any necessary changes to program requirements.	41	
Facilitate student recognition of their own essential skill development. This will likely require instructors to be more deliberate and transparent around the connection between the course activities and the development of specific skills. This could include some of the following: Providing more intentional scaffolding in course activities. Modeling the application of essential skills in our interactions with the students (demonstrating the value of these skills in the workplace). Naming the skills we are modeling and/or incorporating. Explicitly communicating the value of these skills in their future career success. Providing more opportunities for students to reflect on their own learning and essential skill development.	41	
Research and implement an alternative to the Bamfield field trip. The implementation of an alternative will require additional financial support from the College to offset the increased costs of running these types of hands-on activities. Alternate sources of external funding (e.g., CEWIL or other agencies) should also be pursued.	60	
Incorporate place-based learning and other First Peoples Principles of Learning into the development of the new field trip activities.	60	
Modernization of the labs to ensure all lab techniques are up-to-date and relevant and to increase the emphasis on applied biological and scientific skills, as well as to incorporate the First Peoples Principles of Learning into new lab activities.	61	

Recommendation	Self-Study (specify page #)	External Review (specify page #)
Provide students with tools (e.g., Pebble pad) to help them identify and document the skills they are building.	61	
Investigate and draft a report for the department on how group projects and presentations are used in BIOL courses to ensure alignment with course learning outcomes and ensure that the appropriate level of scaffolding is provided. Implement changes as necessary.	61	
Recognize the roadblocks to student success and implement strategies to help students overcome these barriers. This includes fostering a willingness to meet students where they are at, placing more emphasis on study skills in first-year courses, and ensuring our course materials are designed based on the principles of UDL.	61	
Investigate ways to increase program completion and implement necessary changes.	61	
Develop and implement a strategy to integrate more WIL opportunities in BIOL courses.	61	
Provide more intentional scaffolding of essential skills.	61	
Facilitate connections between students and program advisors, and/or promote the degree-planning tools available to students in Banner and eventually WorkDay.		3
Identify, via course mapping, how biology courses are teaching essential skills and find and suggest non-biology electives for students to learn the essential skills that are not emphasized in Biology courses.		5
Encourage instructors to emphasize to students how each learning activity imparts these essential skills.		5
[with regard to funding the Bamfield field-course] We recommend that Biology continue to liaise with other institutions (e.g., through BC Articulation meeting) to address this BC wide issue. We also encourage Biology to ask Langara to advocate to the Ministry of Education for course fees that align with actual course costs.		6

What resources will be used to achieve this Goal? Indicate if existing resources will be used or if additional resources are requested.

Resources
Connect with TCDC Indigenous consultants
Connect with the Deans to advocate for more resources for support departments (e.g., Accessibility Services, Counselling, IT)
Additional capacity for lab instructors
Increased funds to modernize labs
Connect with Facilities
Connect with Co-op
Connect with Biology Club
Faculty release time to support development of courses and curricula.
Connect with Registrar's office.
Connect with Integrated Planning and Accountability (Institutional Research)

Goal 5: Instructional Supports

Which [Academic Plan 2025 Lens or Lenses](#) does this Goal support? Add or remove rows as needed,

Academic Plan 2025 Lens (only include the title of the lens)
CURIOSITY, CREATIVITY, AND INNOVATION: CREATE THE FUTURE TOGETHER
TRANSFORMATIONAL LEARNING EXPERIENCES

Planned Actions: What Planned Actions will the department complete to achieve this goal? Add or remove rows as needed.

Planned Actions	Led by	Begin on	Anticipated Completion	Notes
Explore options to ensure lab instructors are fairly compensated and have manageable workloads.	Angelica Lillico-Ouachour & Kevin Lyon	Fall, 2025	End of 2027	

Planned Actions	Led by	Begin on	Anticipated Completion	Notes
Increase utilization of EdTech and Library resources.	Katherine Cheung	Underway	End of 2028	

What Self-Study or External Review Recommendations do the Planned Actions support? Check the appropriate column to indicate if the Recommendation is from the Self-Study or External Review. Add or remove rows as needed.

Recommendation	Self-Study (specify page #)	External Review (specify page #)
The College needs to reassess the maximum workload for BIOL lab instructors to ensure that there is sufficient capacity to update and maintain the currency of our labs, in addition to performing regular teaching duties.	61	
Make better use of library resources. In particular, there should be activities incorporated into multiple first- and second-year courses in which students are explicitly taught how to use the library and its resources.	73	
Invite members of the EdTech team to attend an Applied Teaching Committee meeting to have a conversation about the educational technology needs of our department.	73	
Explore options for releasing lab instructors from teaching duty so that they may do the necessary lab modernizations and new assessment development.		6
Ensure that the workload of Biology Lab Instructors is in line with that of Lab Instructors in other Science Departments.		8
Allocate professional development funds and release hours for lab instructors to allow them to update and modernize lab content and activities.		8
We strongly encourage the department to invite the EdTech team to attend an Applied Teaching Committee meeting and discuss the need for more higher-level workshops.		9

What resources will be used to achieve this Goal? Indicate if existing resources will be used or if additional resources are requested.

Resources
Connect with Deans

Resources

Connect with subject librarians

Connect with EdTech