



Program Review Guide #2: Curriculum Review

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1. Moving through Program Review and Program Revision

The role of Curricular Review

Curricular review is centrally important both before and after the Program Review process. A detailed map of your program's curriculum will help you understand what it is that your students, faculty and community/industry partners are responding to in your Program Review. When your students say that they learn the same thing in two different courses you will be able to check whether and how this is happening. When your industry advisors indicate that a new skill is needed in the field you will be able to check where that skill might fit into your program. Once your Program Review is finished, this map of your curriculum, as well as the observations and recommendations you have made using it, will be indispensable in making the changes to your program on which you and your colleagues have settled.

*Curricular review informs the **Self-Study Report** and the **Quality Assurance Plan** and is a planning tool you will need when you propose changes to your courses and program.*

The role of the Senate Standing Committees on Program Review and Curriculum

Changes to KPU programming are both administratively and democratically significant. Each change to the way a program works means that we must conduct due diligence to ensure that the change can be responsibly enacted with available resources, that it won't cause unforeseen problems, that it doesn't interfere with other systems or changes, and so forth. Because of KPU's status as a university under the British Columbia *University Act*, a change to a program also requires that we consult with, or seek approval from, various levels of our governance system. Some changes can be made at the level of a particular Faculty, others require approval of KPU's Senate or Board of Governors, and others require the approval of the ministry. Any changes that alter a program, including its courses and prerequisites, will eventually go to the Senate Standing Committee [SSC] on Curriculum. That committee will want to see that you have built a case for your proposed changes from your Program Review onward. More detail on these approval processes is provided where applicable.

*If you intend to make changes to your program, you should view the end of your **Program Review** as the beginning of your **Program Revision**.*

Support for the Curriculum Review process

As you carry out the curricular review, advice and support are available from the Centre for Educational Transformation (CET) on developing learning outcomes and conducting curriculum mapping. The Office of Planning & Accountability will connect you with CET and will help with other aspects of the Self-Study process.

The Outcome of the Curriculum Review Process

By the end of the curriculum review, you will have produced the following components for the Self-Study Report:

1. A profile of the program and its purpose, from Chapter 2 of the Curriculum Review Guide.
2. A profile of pathways for program graduates with respect to employment, further study, and life as an educated citizen, from Chapter 3 of the Curriculum Review Guide.
3. Program Learning Outcomes, from Chapter 4 of the Curriculum Review Guide.
4. Curriculum Map, showing the alignment between Program Learning Outcomes and Course Learning Outcomes, for the Self-Study appendix, from Chapter 5 of the Curriculum Review Guide.
5. An assessment of how well the curriculum meets or supports the program's learning outcomes, and recommendations about how to improve the program, from Chapter 5 of the Curriculum Review Guide.

2. The Program Overview

Program Review begins by describing the program under review, including the rationale for the program and how that may have changed since the program was established. This provides context for the review of the curriculum.

Where are our curricula found?

When we say “curriculum” or “curricula” at KPU we are referring to several different documents that are stored in different systems and are approved by different persons or governing bodies. These things, together, constitute KPU’s program of study for your students. Making significant changes to different aspects of your curriculum requires support from many different service areas (such as the Office of the Registrar or Student Services) and governing bodies (such as your Faculty Council, or the University Senate) and may even involve the Board of Governors or Provincial Government. The Program Review process is intended, among other things, to help us make the most comprehensive, coordinated and evidence-based recommendations for curricular improvements possible.

That process begins by gathering all the information about the curriculum (or curricula) you currently have. This curriculum is recorded in up to four tiers of documents, as described below.

Full Program Proposals [FPPs]	FPPs are the documents that were written to create the program. While these documents are sometimes decades old, they do include our original explanation for the program-level learning outcomes your program was meant to foster. FPPs are stored in the records of the University Board of Governors and Senate, and with the Provincial Government. You can request them from the Senate office by emailing Senate@KPU.ca
The University Calendar	The official and current version of all programs is stored (after being passed by Senate) in the University Calendar at: https://calendar.kpu.ca
Previous Program Reviews	Program reviews include program-level learning outcomes. If your program has completed a Program Review in the past, this is a good starting point. Program review reports are available on the Program Review SharePoint site. If you can’t find them, email sscpr@kpu.ca.
Course Outlines	The current and official version of any course is stored at: Course Outline Inventory. Note, OPA will provide the template for the Curriculum Mapping with the Course Learning Outcomes included, to reduce the workload on faculty conducting the Curriculum Review.

What is the program being reviewed?

The audience for the Self-Study Report will need to understand the purpose of the program and its features. Having this information in one place will also facilitate the curriculum review process described in the succeeding chapters of this guide.

Review the program documents, identified above, for the following information:

- » Overview of the Program(s) under Review:
 - Program level (e.g. graduate, undergraduate, vocational or preparatory)
 - Credential(s) offered and minimum credits required for each credential
 - Discipline, and specializations, if applicable
 - When program(s) was established and last major revision
 - Laddering across credential levels, if applicable
 - Admission requirements and selection methods where applicable
 - Profile of department responsible for delivering the program, in terms of number of faculty (full- and part-time) and other staff involved in delivery
- » Program Purpose:
 - The current purpose of the program, and if major revisions have occurred, the original rationale for the program and why changes were made and when.
 - External accreditation requirements, such as graduate competencies, if applicable. Include name of accrediting agency.
- » Known Issues to be addressed in the Program Review:
 - There are standard issues that each program review must address. Often there are program-specific issues that should be addressed as well. These issues may have been identified by:
 - Program faculty, graduates or students
 - The accrediting agency
 - Known changes in the discipline
 - Feedback from external stakeholders such as the Program Advisory Committee [PAC]

REPORTING

In Chapter 1 of the Self-Study Report template, provide the following information for each subheading in the chapter:

1.1. Overview of Program(s)

- Review the table in the template to profile each program under review (copy the table and complete for each program):
 - Program name, level (developmental, vocational, undergraduate, graduate), the credential (citation, certificate, etc.) and the number of credits required
 - Program discipline, and if there are specializations or concentrations list them
 - The Senate approval date of the program, program start date, and date of the most recent major revision, if applicable.
- Admission Requirements and Laddering: Describe the admission requirements for each program under review, and if limited intake, methods for selecting qualified applicants. Describe how credentials ladder from one to the other, were applicable.

1.2. Program Department

- Provide a brief profile of the department delivering the program, in terms of number of faculty (full- and part-time) and other staff involved in delivery.

1.3. Program Purpose

- Describe the current purpose of the program, and if this is a change for the original purpose, explain why.

1.4. Issues for Program Review

- Describe any program-specific issues that will be addressed in the program review, and the rationale for addressing them. For instance, a change in the discipline, or a new accreditation requirement, or a decline in demand for the program.

Together, these provide a profile of the program being reviewed, and program-specific issues that will be addressed in the program review.

3. The Educated Person: On what paths are you helping them travel?

The ultimate outcome of any program of study is the growth of a more *educated* person. At some levels, such as the baccalaureate level, this education should be broad and comprised of educational experiences that help a person become more employable, more ready for potential future study and a more rounded person and citizen. At other levels, such as the level of a certificate or diploma, programs are usually narrow in scope and may focus on a particular skillset needed for future employment or civic engagement.

What does an educated graduate of your program look like? There are potentially three areas to consider when reflecting on this question. How are program graduates better prepared for the employment they seek, the future study they hope to pursue, and the enriched civic and personal life they want?

In short, how would you describe graduates from your program?

The following are some of the questions worth considering with your colleagues. Some programs may focus only on employment, while others focus more on future study, or more on preparing graduates to live an enriched civic and personal life. Focus on what is relevant for the program. The answers will be useful for developing the career pathways map, and when considering the program learning outcomes later.

Pathways to employment

While access to new forms of employment isn't the *only* reason to obtain a post-secondary education, it is surely *one* of the reasons. Your image of the educated graduate needs to include some basic concepts about the kind of employment they can access after successfully completing your program.

- What kind of occupations are your graduates prepared to pursue?
- How are you preparing your graduates for jobs in this field, future changes in this field, and the job market in general? Your Program Advisory Committee will be helpful in considering this question and, if you don't have one yet, see [Policy AC1 on PACs](#) about how to set one up.
- Are there professional competencies that your graduates require for entry to the profession? This could include the requirements set by accrediting agencies. If so, describe them here.
- Are your graduates ready to take on entry level positions only, or are you preparing them in the medium or long-term for leadership roles?
- In a competitive employment market, what kinds of experiential education are employers looking for?
- Will your students be well prepared to keep up with the changing knowledge base of their field?

Pathways to future study

Students will sometimes enroll in a program in order to prepare themselves for another more advanced program, and many former students find – years into their career – that they want to pursue an additional credential out of personal interest, a desire to move up in their industry/sector, or pursue a different career altogether. Part of your vision for an educated graduate may include the new educational opportunities available to that graduate.

- Does, or should, your program ladder into another credential at KPU or elsewhere?
- Does, or should, your program provide prerequisite courses that allow students to apply, on graduation, for a professional program (such as teacher education)?
- To what extent are your courses transferable to other programs at KPU or elsewhere?

- Is your program intended to be, in most cases, the terminal program in a student's educational experience, or do you typically expect them to take another program of study?
- Is a graduate of your program well prepared for study at the next level? Is, for instance, a baccalaureate graduate prepared for graduate school should they choose to pursue it?

Pathways to an enriched civic and personal life

Education can also help prepare graduates for a lifetime of participation in a changing society, or as members of their communities and families, not just acquiring job specific skills. It can help them learn to think critically, adapt to change, and make informed decisions. It can help develop a capacity for creative thought and expression, as well as an appreciation of the fine arts and an understanding of cultural heritage. In what ways does your program prepare students to exercise these everyday but essential skills?

- Does your program help students to make more informed decisions in their personal and civic lives?
- Does your program equip students with new, or deepened literacies – be they digital, oral, written, etc.?

REPORTING

Answers to these questions, taken together, provide a profile of a typical graduate of the program and will help inform the development and review of Program Learning Outcomes, in Chapter 4 of this guide.

This information is reported in Chapter 2 of the Self-Study Report template, in section 2.1, Pathways for Graduates. For that section, produce a short narrative for each of the following pathways:

- Pathways to employment, including professional competencies that graduates acquire, and occupations they are qualified to enter.
- Pathways to further study, describing the most common study options that graduates pursue, and the career options this makes possible.
- Pathways to an enriched civic and personal life, describing the skills a graduate of the program would have.

It also provides the basis for developing the Career Pathways Map, discussed next.

Career Pathways Map

A Career Pathways Map is a simple visual representation of the types of careers available to graduates of the program undergoing review. The Map benefits students in numerous ways. Because students often have difficulty aligning what they have learned with employment possibilities, the Map can provide students useful information about post-graduation options they may have never imagined. It may also clarify decision-making processes as students select electives, explore internships and embark on research projects as part of their employment preparation. The Map also aids prospective students as they choose programs, majors and begin to build towards their future.

The Career Pathways Map can also illuminate possibilities outside the traditional careers associated with the program. For instance, the knowledge and skills that a liberal arts degree bestows upon graduates – the ability to think critically, communicate clearly, write persuasively, conduct data-driven research, and sift through opposing viewpoints – are often sought after by high technology firms (Anders, 2015). A

Career Pathways Map can shed light on graduate success stories as well as provide faculty fresh ways of making connections between the curriculum and employment.

The Career Pathways Map can also include post-graduate programs. While these are not technically employment, they may include a vital next step for students and should be considered when assessing how well a program prepares its graduates for life beyond KPU.

The profile of a typical graduate, developed earlier, provides the information needed to develop the Career Pathways Map.

REPORTING

Produce a visual representative, in graphic or table form, of the Career Pathways Map, for the appendix of the Self-Study Report, including:

- The typical occupations for graduates of the program, and whether this is entry level, or more advanced.
- Possible occupations suitable for someone who has achieved the Program Learning Outcomes.
- Pathways to further study, and potential careers these pathways would lead.

The Map is a communication tool that can help students understand the options available to them after graduating from the program. Examples of Career Pathway Maps are provided in Appendix A.

EducationPlannerBC is a recommended resource for developing Career Pathways Maps. While career information is not presented in a map format, the site provides comprehensive occupation profiles organized by discipline that can assist programs in identifying and documenting relevant career pathways.

Skill Development

Policy AC9 outlines the skills that each KPU program is expected to address. These are provided in Appendix B, Skills. Through BC Stats' BC Student Outcomes Survey of graduates, the ministry uses graduates' assessments of how their education helped them attain these skills as a measure of the quality of education programs in every public post-secondary institution in the province. Each institution is required to achieve at least 85% of graduates reporting that the program helped them attain these skills. The results for your program will be provided in the data collection phase of the Self-Study.

Each KPU program needs to address all of the skills articulated in KPU's Skills and Outcomes Policy (AC9) and ensure that the program helps students develop the skills on which the ministry will assess the quality of our programs. In many cases programs naturally develop these skills – it would be unusual, for instance, to find a baccalaureate program that did not develop a student's written communication. In other cases, outcomes should be added at the course or program level to ensure your students graduate with the full range of skills for which we are responsible.

REPORTING

The assessment of how well the program is designed to address the skills should be reported in Chapter 2 of the Self-Study Report template, in section 2.2, Skill Development. While doing the assessment, identify recommendations for improvements that may be required to better address the skills and clearly articulate these in the table provided in Section 2.2.

4. The Program Curricula

This chapter describes the process for reviewing your existing curricula and collecting information for the curriculum map, in Chapter 5. This will help focus both your conversations about how well the current program is working as well as develop recommendations on where the curricula need improvement for the Self-Study Report.

What are learning outcomes?

Learning outcomes are the centerpiece of the curricular review process and come in two forms: program-level learning outcomes [PLOs] and course-level learning outcomes [CLOs].

- PLOs are written in Full Program Proposals, Program Reviews, and, sometimes, in proposals to revise a program. They may be referred to in the description of a program provided in the University Calendar, but this is not usually the case. Program Learning Outcomes are statements that describe the knowledge, skills and attributes possessed by a graduate from a program. Unless required by external accreditors, the number of PLOs is generally less than a dozen.
- CLOs are written in Course Outlines and Course Presentations and, in some cases, are also written into Full Program Proposals. CLOs are the knowledge, skills and attributes possessed by a student who successfully completes a course.

The form that PLOs and CLOs take is diverse, and there are many schools of thought as to how best to understand the outcomes educational systems produce: [competency-based education](#) and [21st Century Skills](#) are both current but non-authoritative examples. These kinds of big questions about how to understand outcomes are left to faculty members to decide within their own programs, subject to the approval of their Faculty Council and (when required) Senate. Senate uses a modernized version of [Blooms Taxonomy](#) but basing your outcomes on it isn't a firm requirement.

For the purposes of getting started, here are some basic best practices:

- Most models refer to outcomes in three categories: knowledge, skills and attributes or attitudes. Graduates should, in other words, know certain things, know how to do others, and possess certain traits or dispositions.
- All KPU outcomes start with the stem "A student who successfully completes the course will have reliably demonstrated the ability to..."
- Write your outcomes with an action verb (see the taxonomy link above for examples) that refers to students and not the instructor.
 - i.e. "...distinguish monetary from fiscal policy proposals."
- Identify observable outcomes or, put differently, things that students can demonstrate to you.
 - i.e. "identify the parts of an appliance" and not "understand an appliance."

Program-level learning outcomes

Review the curricular documents identified in Chapter 2 and determine whether your program has program-level learning outcomes. PLOs may be in either the original Full Program Proposal for your program or in a previous Program Review. Some programs include PLOs in course revisions, so there is also a chance you might have PLOs in your most recent revision documents.

Program Learning Outcomes should align with the purpose of the program, articulated in Chapter 2, and the profile of a typical graduate of the program, from Chapter 3. If they don't, then changes should be made so they do align, either to the PLOs, or the profile of a typical graduate, or both.

If you have program-level learning outcomes

Although, normally, changes are not made to a program during the program review process, the one exception is Program Learning Outcomes. In order to do the curriculum review, relevant PLOs are required. If you have PLOs already, you may wish to review them with your colleagues to determine whether these outcomes represent the current goals of your program. The profile of a typical graduate, developed in Chapter 3, can help you consider whether your program needs to reconsider its PLOs.

If you don't have program-level learning outcomes

If the program doesn't have PLOs, you will need to develop them before you can proceed with the next steps in the curriculum review process. You may begin with the profile of the typical graduate, developed in Chapter 3. Review the profile and ask yourself, *which elements of this conception can we support through education?* If you and your colleagues see your graduates as being leaders in ethical business practices, for instance, you might conclude that this is something that can indeed be taught (or at least *nurtured*) in your program. This would form the basis for a PLO on ethical business.

Aligning PLOs to the credential

KPU offers a range of credentials ranging from citations to post-baccalaureate degrees. The level of proficiency students must demonstrate upon successful completion of their program should depend on the type of credential they are receiving. As a general rule, learning outcomes should be “scaled up” as the level of credential increases. Identifying the level of proficiency students are to achieve helps ensure attainable and credential-appropriate CLOs.

To illustrate, for an English program that offers certificates, diplomas and degrees, the learning outcome increases in complexity as the credential level increases:

- Certificate: Identify rhetorical appeals in assigned readings
- Diploma: Apply rhetorical appeals when writing a short persuasive essay
- Degree: Critique a writer's use of rhetorical appeals in long-form essay

Aligning PLOs with other requirements

If there are accreditation requirements or other external standards that your program must address, you may find it useful to map out how the PLOs align with these standards to ensure there are no gaps. If you have made changes to the existing PLOs, one way to communicate those changes is to map the new PLOs to the old PLOs.

Can we change our PLOs?

Changes to PLOs require approval that is outside the mandate of the SSCPR, so for the curriculum mapping step in Chapter 5, use the current PLOs if possible. However, it may be necessary to modify the PLOs in order to complete the curriculum mapping. These unapproved PLOs are only recommendations until they can be approved, which happens after the program review is complete. The purpose of curricular mapping is to identify where changes are required and make recommendations in the Self-Study Report.

If PLOs have been modified in any way from the last approved PLOs, a recommendation for the revised PLOs should be made in the program review Self Study report. When the Quality Assurance Plan is later developed, include the task to bring the revised PLOs to the Senate Standing Committee on Curriculum to seek their approval. Note, if PLOs are substantially changed from what they were when approved by government, the revisions may require government approval. The Provost's office can advise on this.

REPORTING

The PLOs will be needed for Curriculum Mapping, described in Chapter 5. The reporting requirements are described in Chapter 5.

Course-level learning outcomes

All courses at KPU have course-level learning outcomes, which can be found in their most recent and approved form at the [Course Outline Inventory](#). These are mandatory and must be taught in all sections of a given course. This is distinct from a course's assessments, for instance, which are included in the approved course outlines but which are the subject of flexibility for each course instructor.

Course outlines also contain other information that may help in your program review process such as assessment, course format, learning activities, prerequisites and corequisites, content, learning resources, and so on. These aren't part of your curricular review but may be useful for review of the instructional delivery, which follows the curriculum review process.

Can we change our CLOs?

Changes to CLOs require approval that is outside the mandate of the SSCPR, so for the curriculum mapping step in Chapter 5, use the current CLOs. The purpose of curricular review is to identify where changes are required and make recommendations in the Self-Study Report. The recommendations should specify what the issue is with regard to CLOs that need to be addressed, rather than posing the solution. Fixing the learning outcomes comes after the Program Review is finished, although the process could begin before the Program Review is completed, but is not required as part of the review. Information on the curriculum approval process is provided in the Guide to Quality Assurance Plan Development.

REPORTING

OPA will provide an Excel file with a full set of CLOs for the program being reviewed along with the PLOs, where available, for each credential offered. This will be provided as a matrix that will be needed for Curriculum Mapping, described in Chapter 5. Completed curriculum maps should be included in the Appendices document of the Self-Study Report. To ensure consistency in formatting and reporting across programs, please use the curriculum mapping templates provided.

5. The Program Curriculum Map

Curriculum mapping provides a global view of how elements of the program's curriculum relate to the Program Learning Outcomes. The process of mapping the curriculum entails associating CLOs to PLOs. This allows programs to identify curricular gaps, where outcomes are not currently being taught, or are not adequately assessed, and curricular redundancies, where outcomes are taught in multiple courses without a rationale for the overlap.

Mapping Learning Outcomes

The map is portrayed as a matrix, with PLOs reported across the top of each column, and CLOs for each course in rows. In the matrix, short forms of the learning outcomes can be used, or CLOs numbers. The CLO number is specific for each course to avoid confusing CLOs from different courses. A simple example is portrayed on the following page. Across from the course name is a summary of how the course addresses the PLOs, while the specifics are provided in the rows for each CLO.

This approach produces a large matrix but conveys a lot of information and makes the process of mapping CLOs to PLOs straightforward by having all the information in one table. It makes it possible to understand the logic of the mapping, since each CLOs is listed. It also makes it clear when CLOs don't align with any PLO. Note, the example illustrates that CLO 3100-2 does not map onto any PLO.

Rather than merely indicating alignment with the PLO, this approach can be used to identify the degree to which program level outcomes are addressed by each CLO. Here is a scale that can be used for this purpose,¹ although there are other scales that can be used:

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.

Use of this scale is illustrated on the following page. In this example, CLOs are listed by number.

REPORTING

OPA will provide a matrix for your program that lists all CLOs for each required course, with PLOs (if available) in the columns. If your program does not have PLOs, you will need to develop them and add them to the matrix. The matrix will also include CLOs for courses where students choose from a list of options.

Programs will be provided with curriculum mapping templates; however, these templates may not always reflect the most current curriculum. As part of the curriculum review process, programs are responsible for validating the information contained in the templates to ensure that:

- All current program courses are accurately represented.

¹ Source: Adapted from Veltri, Webb, Matveev & Zapatero, 2011.

- CLOs and PLOs are current and accurately reflected.

Identify which CLOs align with each PLO and indicate the level of alignment by marking the corresponding cell with I, D, or A. The completed Curriculum Map will be one of the appendices in the Self-Study Report.

Example of Curriculum Map

Program Courses and their CLOs	PROGRAM LEARNING OUTCOMES					
	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6
ABC1100	I	I				I
1100-1	I					
1100-2		I				
1100-3						I
ABC1200	I		I	I		
1200-1			I			
1200-2	I					
1200-3				I		
ABC2100		D	D	D	I	
2100-1			D			
2100-2				D		
2100-3					I	
2100-4		D				
ABC2200	D			D		D
2200-1	D					
2200-2						D
2200-3				D		
ABC3100			D			
3100-1			D			
3100-2						
ABC3200					D	D
3200-1					D	
3200-2						D
ABC4000	A	A	A	A	A	A
4000-1		A				
4000-2			A			
4000-3					A	
4000-4	A					
4000-5				A		
4000-6						A

The Curriculum Assessment

Once you have completed the mapping you can begin the analysis to assess how well the curriculum meets or support the PLOs. As you discuss the results of this exercise with your colleagues, you will be able to answer some of the big questions your Program Review will pose:

1. Are there PLOs that are overly emphasized in the courses? Is there a need to adapt some courses to reduce this redundancy?
2. Are there PLOs that are not adequately addressed by the CLOs? Are new courses required, or do some courses need to be revised with new CLOs to fully address the PLOs?
3. Are some CLOs only loosely connected to the outcomes of the program? Does that mean that additional PLOs are needed, or that the CLOs are inappropriate?
4. Do our courses provide a progression from more introductory outcomes, in early courses, to more advanced outcomes in final courses?
5. Do our outcomes show that the courses for which we have prerequisite requirements truly need those requirements? Do the prerequisite courses include outcomes that make the higher-level courses more feasible? In other words, are the course outcomes students meet in one course built on in upper level or subsequent courses?

REPORTING

The results of the curriculum assessment are reported in Chapter 2 of the Self-Study Report template, in section 2.3, Curriculum Assessment.

The PLOs are reported in the sub-section labeled “Program Learning Outcomes.” List each PLO, numbering them for ease of reference. Indicate whether these are new, because none existed before, or modified from the most recent approved PLOs. If modified, please include the most recent approved PLOs as well as the recommended revised ones that were used for the curriculum review. These recommended changes should be the result of the curriculum mapping. The reasons for the recommended changes to the PLOs should be provided.

Provide the results of the assessment about whether the PLOs are correct:

- Describe what PLOs are missing, if any, and why it’s needed. Missing PLOs can be added to the Curriculum Map to determine whether they are already being addressed through the existing CLOs.
- Identify any PLOs that aren’t relevant and explain why.
- If PLOs have been changed, explain why.

You will have an opportunity to obtain feedback on the PLOs when OPA conducts the surveys of faculty, students, alumni, discipline/sector representatives and PAC members.

Provide the results of the curriculum assessment:

- After completing the curriculum map, use the COUNTIF function in Excel to calculate how many times each Program Learning Outcome (PLO) is addressed at the Introducing (I), Developing (D), and Advancing (A) levels across all courses:
=COUNTIF(enter range, "I")
=COUNTIF(enter range, "D")
=COUNTIF(enter range, "A")
Summarize these totals in the table provided in the template. If you require assistance with these calculations or using the COUNTIF function, please contact the OPA Quality Assurance Team at sscpr@kpu.ca.
- Develop recommendations to address gaps, redundancies, misalignment, and other issues identified through the curriculum map IDA analysis. Here are some guiding questions.
 - Gaps: Are the PLOs adequately addressed through the courses? If not, what is needed?
 - Redundancies: Are we overemphasizing some PLOs? If yes, which ones?
 - Misalignments: Are there any PLOs that appear to be misaligned with the course learning outcomes (CLOs)? For example, are there cases where CLOs advance PLOs without adequately introducing or developing the knowledge, skills, and abilities (KSAs) associated with those PLOs? In other words, are there imbalances in the distribution of Introduce, Develop, and Advance (IDA)? Typically, PLOs are introduced in first- and second-year courses, further developed in second- and third-year courses, and advanced primarily in fourth-year courses
 - Are we teaching things that aren’t relevant to the PLOs? If yes, what is not needed?
 - Do the courses provide a supportive, scaffolded progression towards our vision of an educated graduate? If not, where are improvements needed and why?

This analysis will include recommendations about what issues need to be addressed and why. For instance, some courses may need to be revised. At this point in the process you are identifying

redundancies that need to be eliminated and gaps that need to be addressed. The specifics of how to address these issues are not required in the Self-Study Report. The process of determining how to address these issues begins once the Program Review is over.

As explained in the previous chapter, the SSCPR does not approve curricular changes. The focus of the SSCPR will be on the clarity and completeness of the curriculum assessment and the rationale for recommended changes.

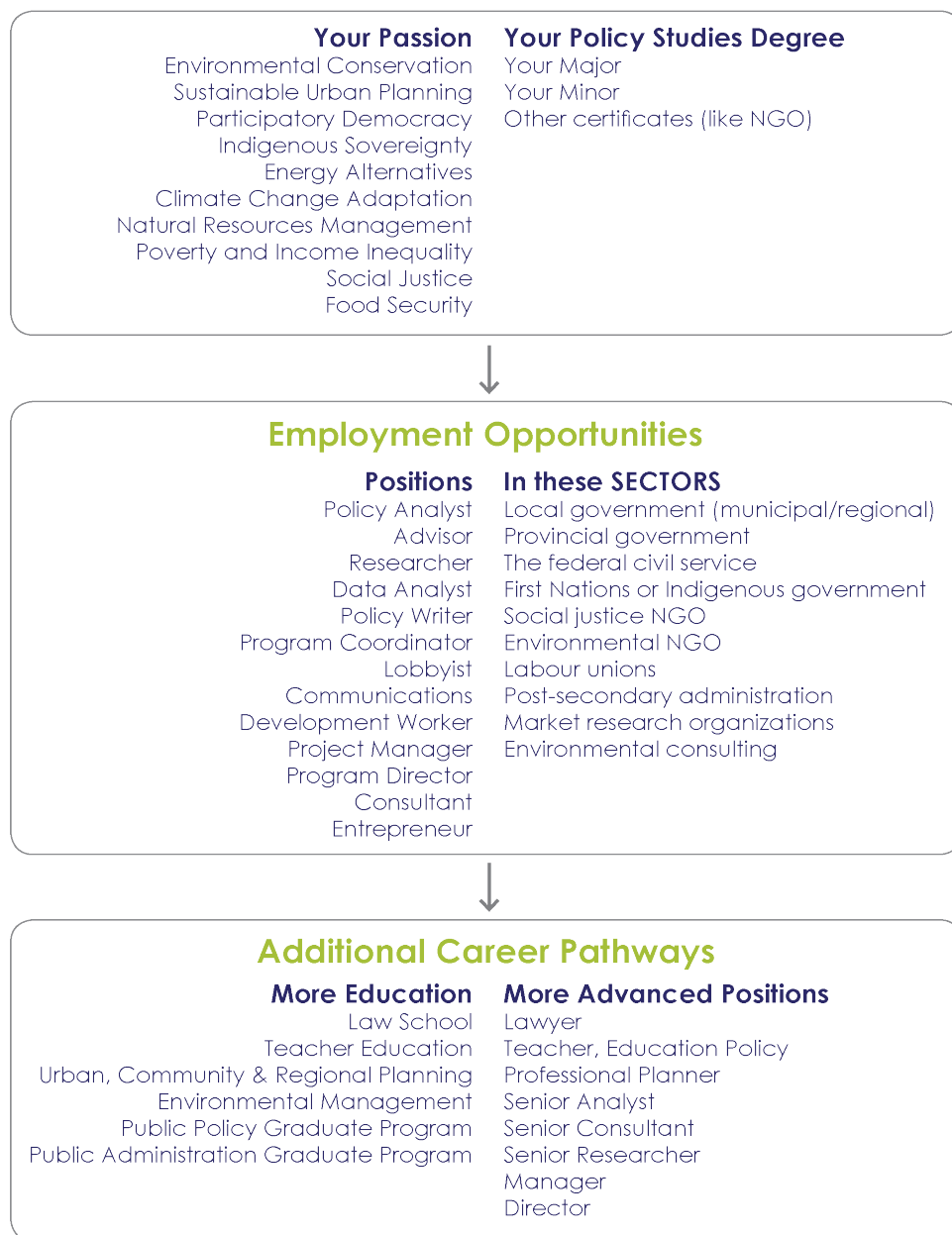
Appendix A: Examples of Career Pathway Maps

Example 1: Physics for Modern Technology

Employment		Further Study	
Areas of Work	Example Entry-Level Positions	Program	Possible Outcomes
Original Equipment Manufacturer (OEM) Data Science Software Particle Accelerator Development Mining Technology Robotics Green Energy Technology Government Lab	Technical Advisor	MSc / PhD (entry may require completion of upgrading courses at receiving institution)	Advanced technical role in high technology sector
	Product Specialist		Research and development in high technology sector
	Service Engineer		Postdoctoral researcher
	Junior Data Scientist		College or University professor
	Software Developer	Teacher training	High school science / math teacher
	Hardware Systems Technician		
	Engineering Technologist / Cyclotron Operator		
	Electromechanical Technician	MBA (normally undertaken after a period of postgraduate employment)	Management role in high technology sector
	Assembler		

EXAMPLE 2: Policy Studies

Policy Studies in Sustainability CAREER PATHWAYS



EXAMPLE 3: B.Sc. in Health Science

Sector	Possible Careers	Credential/Skills
Academia Post-Secondary	• Professor • Researcher/Research Coordinator • University Administrator • Support Services Coordinator	MA, MSc, or PhD (Health Related Field)
K-12 Education	• Science Teacher • School Administrator • School Counsellor	BC Teaching Certificate Administration/ Counselling: Graduate Diploma in Education MA or M.Ed
Research and Program Evaluation	• Research Associate or Consultant • Research and Community Development Advisor • Program Evaluation Officer • Research Analyst • Census Officer/Statistician	BA/BSc Some positions MA, MSc or PhD Technical skills
Public Policy	• Policy Analyst • Policy Researcher/Writer • Policy Development Coordinator • Policy Research and Communications Associate	BA/BSc Some positions: MA, MSc, or PhD
Community Services	• Community Engagement Coordinator • Community Worker • Outreach Worker	BA/BSc Senior Positions: MA, MSc, or PhD
Global Health	• Development Program Officer • Community Development Project Manager	BA/BSc Senior Positions: MA, MSc, or PhD
Public Health/ Health Education	• Health Educator • Health Promotion Educator	BA/BSc Senior Positions: MA, MSc, or PhD
Clinical/ Pharmaceutical	• Clinical Research Associate • Coordinator, Clinical Research • Pharmaceutical and Health Products Sales Representatives	Bachelor's degree in life science or related discipline For pharmaceutical sales representative: usually Bachelor's plus sales

EXAMPLE 4: Fine Arts

Industry or Sector	Possible Careers	Potential Next Steps
Self-Employment	-Professional Artist	Working in a Fine Arts or Craft discipline
Post-secondary Education	- Professor, Fine Arts - Professor, Art History - Researcher - Technician - Artist in residence, guest lecturer - Archivist - Librarian	Entry-level position (for technician), all other potential careers require further graduate training: MFA, MA, and/or PhD depending on the discipline and/or research area
Digital Arts, Interactive Media	- Web Design - Game Design - Concept Artist - Digital Photographer	Entry-level Position, or specialized program
Museum, Gallery, Studio	- Curation - Public Programs, Education - Preparator - Artist Assistant - Writing - Exhibit Designer - Photographer	Entry-level Position, or specialized program
Marketing, Advertising, Publishing	- Branding - Graphic Design - Publishing/Layout - Photographer - Writing - Illustration	Entry-level Position, or specialized program
Architecture	- Architect - Landscape Architect - Urban Design - Environmental Design	Master of Architecture, Master of Landscape Architecture, Master of Urban Design, Master of Environmental Design
Education: K-12	- Teaching Assistant - Teacher	Specialized program, B.Ed., or PDP
Film, TV, Theatre Arts and Stagecraft	- Set Design - Prop Design - Production Design - Assistantship - Photographer	Entry-level position, apprentice/intern, or specialized program
Art Therapy	- Art Therapist - Counseling	Masters, or specialized program
Design	- Industrial Design - Product Design - Interior Design - Graphic Design	Entry-level, or specialized program

Industry or Sector	Possible Careers	Potential Next Steps
Education: Other	- Private: Post-Secondary Teaching (e.g. Arts Institute) - Civic: Recreation and Community Arts Teaching - Public Secondary & Post-Secondary: Continuing Education - Independent: Art instruction	Entry-level position, specialized program, B.Ed., PDP, or Masters
Art Market	- Art Advisor - Art Appraiser - Estate Planning	Entry-level positions with an MA in Art Business or an Art Appraisal License

Appendix B: Skills²

KPU Policy AC9, Skills and Outcomes, states that each program must ensure students have opportunities to learn and demonstrate the skills identified by the ministry at a level appropriate for that program. Through the BC Student Outcomes Surveys of graduates, the ministry uses graduates' assessment of how their education helped them attain the following seven skills as a measure of the quality of education programs:

Writing clearly and concisely

Speaking effectively (verbally express opinions or ideas clearly and concisely)

Reading and comprehending material (appropriate to your field)

Working effectively with others

Analyzing and thinking critically

Resolving issues or other problems

Learning on your own

² The term skill is taken to include knowledge, attitudes and abilities.