A Guide for Curriculum Mapping

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What is Curriculum Mapping?

Curriculum mapping is a process that helps units identify the progression of student learning and ensures that students are meeting program learning outcomes (PLLOs) in a strategic, supported way. Progression of learning refers to how learning moves forward, changes, or gets stronger as students go through their studies. As part of their mapping, instructors align elements of courses—such as course learning outcomes (CLOs)—with their PLLOs to identify where and how knowledge and skills are taught and assessed.

While we use the terminology curriculum *mapping,* the resulting diagrams often resemble a matrix more than a traditional map. (Taylor)

Here is a simple example of how these maps/matrices can look.

N = Novice. "The course introduces students to important concepts and disciplinary thinking. The level is intended for students who have no previous experience with the material."

I = Intermediate. "The course is pitched to students who have taken at least one previous course in the discipline. It is for neither novice nor advanced learners."

A = Advanced. "The course is designed for students who have taken several courses in the discipline and are well familiar with the basic concepts, theories and terminology of the discipline." Metzler et al. (2017)

Program-level Learning Outcomes	Course W	Course X	Course Y	Course Z
Describe the values of one's own culture.	N, I, A			A
Articulate different cultural perspectives	N	I, A		A
Analyze the values of different cultures.		N, I	N, I, A	

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This process enables programs to assess how well their programs and structures are aligned to their intended outcomes and identify opportunities for continuous improvement (Eng).

Why Do We Do Curriculum Mapping?

- *Continuous improvement:* Curriculum mapping helps identify areas to improve the curriculum and better meet learning outcomes.
- *Cyclical Program Review (CPR)*: Curriculum mapping supports the CPR process by showing how courses align with program-level learning outcomes.
- *Accreditation:* Curriculum mapping shows how a program meets standards, aiding in the accreditation process.
- *Demonstrate which courses learning outcomes are in core courses:* Curriculum mapping highlights which core courses meet learning outcomes, guiding decisions on course changes or removals.

When is it beneficial to engage in Curriculum Mapping?

- Throughout the CPR process, specifically while writing the self-study, fulfilling the recommendations, and/or completing the 18th-month and four-year report.
- When developing a new program or working on a major modification to an existing program.
- During a departmental retreat in discussions. The CTL at Queen's is available to facilitate these conversations, view the [Departmental Teaching and Learning Support](#) site for more information.
- When forming/reforming a Curriculum Committee.

Benefits of Curriculum Mapping

- Evidence-based means of evaluating programs and engaging in curriculum review
- Provides a view of the curriculum as a whole (Jacobs & Johnson, 2009).
- Identifies relationships within the curriculum, such as connections between learning outcomes, student assessments, and teaching and learning activities (Tariq, Scott, Cochrane, Lee & Ryles, 2004).
- Encourages communication and collaboration amongst instructors within a program (Metzler, Rehrey, Kurz & Middendorf, 2017)
- Provides an opportunity for reflection (Fraser, Crook & Park, 2007; Tariq, Scott, Cochrane, Lee & Ryles, 2004)
- Helps instructors to articulate tacit understandings about a program and identify strengths, gaps and redundancies in a curriculum (Jacobs & Johnson, 2009)
- Demonstrates the progression of learning throughout a program and, when present, identifies gaps in progression of learning.

Recommendations for Curriculum Mapping

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- Create and/or revise your program-level learning outcomes before starting your mapping project.
- Discuss the mapping process with the entire team prior to starting, so that there is a shared understanding of expectations, timelines, and processes.
- Engage in clear and ongoing communication. Set up internal checkpoints in advance of your anticipated end date.
- Engage instructors—especially those teaching core courses—in the curriculum mapping process.
- Identify who will be responsible for data representation and analysis, as well as any other important tasks.
- Have a strategy for mapping support. Involve your curriculum committee and/or invite an educational developer from the CTL to facilitate a departmental retreat.

Sample Template

At Queen's, there are a variety of methods used to conduct curriculum mapping. If your department is accustomed to working in Excel, this basic template can be used as a starting point.

Curriculum Mapping Template

Frequently Asked Questions

1. **Do I need to map all the courses a student could take?**
    There are several ways to engage in curriculum mapping, and the path you take can depend on the size of the program and the number of pathways through the program. All curriculum mapping should include the core courses required for program completion.

    Some units *do* map every course, particularly for certificates with small courseloads. Other units group electives together, instead of listing every option available. For example, if all students completing a program are required to take one 300-level course—as opposed to a specific 300-level course—then the curriculum mapping can group the 300-level courses together in their mapping to demonstrate what learning outcomes are aligned with this requirement and how they are assessed.

    If there are any mandatory program checkpoints, such as graduate comprehensive exams or major research projects, those should also be mapped.

2. **How do I account for multiple pathways through a program?**
    Multiple pathways can be mapped separately to demonstrate how students achieve consistent learning outcomes regardless of the path they take. Be open to the possibility that mapping these pathways reveals new insights into your programs' curriculum: you might find out that different pathways lead to the same outcomes *or* that they result in similar but distinct outcomes.

3. **Can I map multiple programs on one curriculum map?**
    For the sake of clarity and accessibility, we recommend mapping each program on a separate map. Some units have mapped similar programs with shared outcomes and assessments onto the same map. If your unit decides to map multiple programs on one map, it is important to ensure that the distinctions between the programs are clearly depicted.

4. **What are we trying to achieve through curriculum mapping?**
    There are many things that can be achieved through curriculum mapping and only the unit engaged in the process can decide their goals and priorities. We recommend reading the section above titled "**Benefits of Curriculum Mapping"** before starting the

mapping process. Curriculum mapping is most valuable when it is done intentionally and with an open mind.

5. **How can we use the results of curriculum mapping to inform our continuous improvement?**
Just engaging in the curriculum mapping process is continuous improvement, as it shows a commitment to engaging in curriculum reflection and evaluation. Depending on your unit's goals, the results might inspire you to combine similar courses, add an additional learning outcome, rework a core course, etc. If you would like support applying the results of your mapping, reach out to the Centre for Teaching and Learning at ctl@queensu.ca

Additional Resources:

Curriculum Review: Curriculum Mapping by the Taylor Institute of Teaching and Learning at the University of Calgary

Engineering Resource on Mapping Indicators to Curriculum

Curriculum Commons Pressbook

Curriculum Mapping, Centre for Teaching Excellence, University of Waterloo

Queen's CTL Page on Curriculum and Program Review Curriculum CTL Page