

SETTING THE FOUNDATION:

Developing co-operative education outcomes for undergraduate Mathematics' programs



Applying our process in your context

After our presentation, we will explore implementing this process at your institution. The guiding questions for this discussion are listed below, and there is space on the back of this sheet for your notes.

- What parts of this process would work well for your institution?
- What barriers might you encounter in implementing this collaborative process?
- Who would you want to participate? What support units at your institution can help you with this work?

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Key resources

Collaborative engagement: Jacobson, W. (2010-2011). Memo to departments. Outcomes assessment really is a good idea. *Essays on Teaching Excellence: Toward the Best in the Academy*, 22 (2). Retrieved from https://podnetwork.org/content/uploads/V22_N2_Jacobson.pdf.

Faculty-driven curriculum development: Wolf, P. (2007). A Model for facilitating curriculum development in higher education: A Faculty-driven, data-informed, and educational developer-supported approach. *New Directions for Teaching and Learning*, 112, 15-20.

Outcome development: Centre for Teaching Excellence. (2018). *Curriculum design and development*. <https://uwaterloo.ca/centre-for-teaching-excellence/support-faculty-and-staff/curriculum-renewal/design-and-development>.

Process phase	Key considerations	Your context
Spark/call for participants	<ul style="list-style-type: none"> • Engagement: Who do you want to engage in this process? Who needs to be consulted? Informed? At what stages? • Approval: Who will need to approve the outcomes developed? How will you ensure their buy-in and support? • Mandate: What is the mandate of the outcomes working group? • Logistics: How often will you meet? Where will you meet? How will you manage meetings? How will you store resources and other documents? 	
Developing the outcomes	<ul style="list-style-type: none"> • Visioning: What are the <i>ideal</i> attributes (i.e., knowledge, skills, values) of graduates? • Organizing: How are these attributes related? What attributes reflect the ideal rather than <i>all</i> students? • Drafting: How do we articulate these attribute clusters to reflect measurable, specific, and attainable outcomes? • Critiquing: Do these outcomes meet our requirements around discipline, function, and design? 	
Stakeholder consultation	<ul style="list-style-type: none"> • Stakeholders: Who are the key stakeholders of this process? How do we ensure we hear from all of our stakeholders? • Consultation: Who needs to be consulted about these outcomes? Who can help us critique the outcomes? • Analyzing feedback: How do we collect feedback? How will we analyze the results of this data collection? 	
Approval and implementation	<ul style="list-style-type: none"> • Approval: What formal processes must be undertaken for approval? • Implementation: How will we use these outcomes? Who will take ownership of the implementation process? • Assessment: How will we evaluate these outcomes? How will we continue to ensure they are the right outcomes? 	