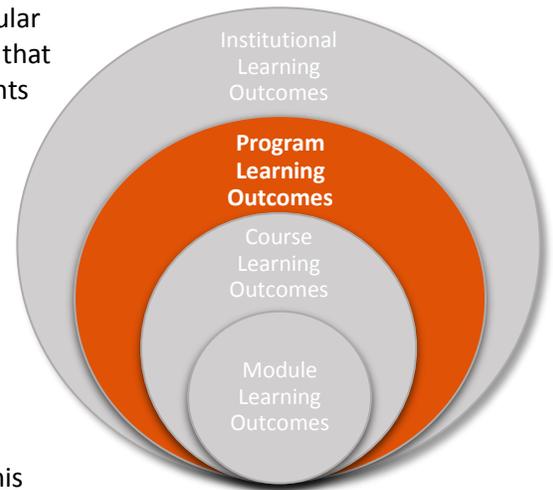


Developing Program Learning Outcomes

Learning outcomes are descriptions of the intended results of a particular learning experience. Program-level learning outcomes are statements that describe the significant and essential learning that we want our students to achieve, and reliably demonstrate, after completing ALL required courses in a program. This type of outcome reflects complex learning that is the culmination of the knowledge and skills learned in individual courses within a program. Only once students have successfully completed all of the required courses in a program, will they be able to achieve all of the program-level learning outcomes.

A *program* may be a citation, a certificate, a diploma, an associate degree, a post-degree diploma, or a degree, so the way the learning outcomes are written will depend on the program purpose and goals.

Ideally, a program will have 6-10 program learning outcomes. While this number is NOT set in stone, having too many program learning outcomes can make it challenging to assess student learning and the effectiveness of the program.



Program Goals & Program Learning Outcomes

Program goals are broad, general statements that describe what a program aims to achieve. They may outline the content that will be covered or the disciplinary questions that will be addressed. They tend to focus on what we, as instructors and staff, will do and/or the opportunities the program will provide to students.

Consistent with the mission of the College, the _____ program seeks to

- help students explore and apply various human resource strategies to solve complex business challenges (Business)
- enhance students' appreciation of the social, economic, and political factors that shaped the development of modern day Europe (History)
- provide opportunities for students to develop their critical and creative thinking skills (general academic goal)

In contrast, **program learning outcomes** focus on the learner and explicitly **describe what students should be able to do, accomplish or produce at the end of a program to directly demonstrate their learning**. That is, they focus on the application, integration and synthesis of knowledge and skills from the perspective of the student.

Upon successful completion of this program, students should be able to

- critique a variety of methodological approaches to the study of literature (English)
- create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation (Education)
- interpret, explain, analyze, and assess representative philosophical texts, teachings, and problems (Philosophy)

Benefits of Developing and Using Program Learning Outcomes

Program learning outcomes provide a number of benefits to students, instructors and staff.

Benefits for students

Program learning outcomes

- help students understand the goals of a program
- make expectations of learning clear and transparent to students
- indicate a sense of direction or focus for studying
- improve learning and increase learner motivation
- allow students more autonomy and control over their learning
- helps students recognize and articulate the skills and knowledge they've gained after completing the program

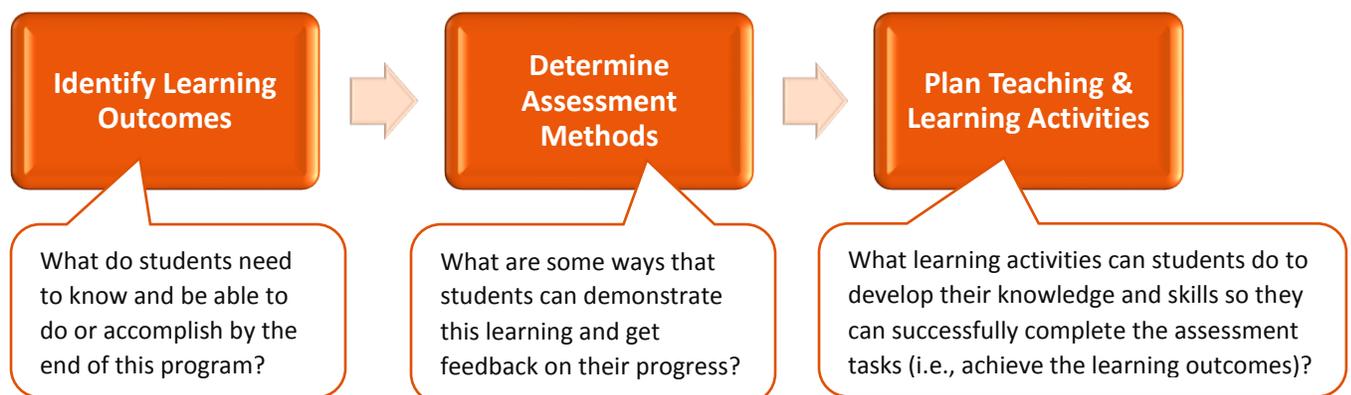
Benefits for instructors and staff

Program learning outcomes

- provide clear, specific aims for a particular program
- simplify the development and sequencing of courses within the program
- facilitate the selection and/or development of capstone or graduation projects
- enable departments to continuously assess and enhance student learning
- facilitate articulation agreements between institutions

BACKWARDS DESIGN

Identifying learning outcomes first can simplify program and course design and ensure instructional strategies stay focused on what the learners need to know and be able to do at the end of the learning experience.



What to Consider When Developing Program Learning Outcomes

Some factors to consider when writing program learning outcomes include

- **results of a needs assessment**

According to faculty, staff, professional or disciplinary associations, institutional transfer agreements, current job prospects, industry trends, and focus groups with alumni, employers and new hires etc., what do graduates of this program need to know and be able to do, demonstrate or produce?

- **the purpose of the program**

Program learning outcomes for an applied or career program may be written to reflect the hands-on, job-ready skills that students will develop, whereas programs designed to be pathways into further studies may reflect students' ability to describe, compare or evaluate particular theories or concepts.

- **the length of the program**

What students can be expected to achieve at the end of a 6 month certificate is very different from what they can be expected to do at the end of a degree.

- **the students' prior learning and/or experience**

Students in a post-degree diploma program will have more education and possibly more work-experience than students coming into a diploma program directly from high school. Therefore, program learning outcomes for a PDD should be written in a way that reflects more complex levels of learning.

- **the mission and values of the College**

Ideally, program learning outcomes align with and support the values and priorities outlined in the Academic Plan. For example, if developing critical thinking skills is one of the program goals, this could be translated into learning outcomes that reflect Langara's values of multiculturalism (Priorities 3 and 4) and social sustainability (Priority 5).

- a. By the end of this program, students should be able to approach an issue or problem from multiple perspectives (Driscoll and Wood, 2007).
- b. By the end of this program, students should be able to compare and contrast academic materials and concepts with their community experiences and explain the reasons for the differences (Clayton, 2005, as cited in Driscoll and Wood, 2007).

Writing Program Learning Outcomes

Program learning outcomes should

- align with the goals of the program
- make expectations of learning clear to students
- be **measurable** or **observable** (not activities or states that are internal to students' minds, i.e., understand, appreciate, know)
- reflect the intended **results of the learning experience** not the means of learning
- reflect **learning that is core or essential** to the program
- represent the **minimal acceptable level of learning** that a student needs to demonstrate in order to be considered successful
- represent a **culmination of learning and achievement** during the program (rather than the acquisition of specific concepts or skills related to one particular course)
- not dictate instructional strategies or means of assessment (there should be a number of ways to achieve and measure the outcome)

When beginning to develop program learning outcomes, it can be helpful to consider the following questions.

1. What core or essential information must a graduate of this program know?
2. What skills or abilities must a graduate have?
3. What should a graduate value?
4. What would a graduate be able to do, accomplish or produce to explicitly demonstrate this knowledge and these skills and values? In other words, how will you, as the instructor, know that this graduate has learned this knowledge and these skills and values?

Questions to help identify program goals.

Questions to help identify program learning outcomes.

STRUCTURE OF LEARNING OUTCOMES

Well written learning outcomes include

- a **stem** such as *upon successful completion of this program, students will be able to . . .*
- an **action verb** that identifies the observable activity that will be expected of the student, and
- the **learning statement** that specifies what learning will be demonstrated – a concept/idea, skill, attitude or value.

Stem	Action Verb	Learning Statement
Students will be able to	apply	interdisciplinary perspectives to examine ways in which culture is formed, practiced and constituted. (Cultural Studies)
Students will be able to	effectively communicate	perspectives on complex environmental challenges to both professional and lay audiences. (Environmental Studies)
Students will be able to	describe	the multidisciplinary approach to the study of health, illness, disease and disease prevention in communities (Health Sciences)

ACTION VERBS & LEVELS OF LEARNING

When we write learning outcomes, we use *action verbs* to explicitly state what the learner should be able to do; however, not all action verbs reflect the same level of learning.

- Some verbs such as *label, list, and name* require learners to **recall information** that they have learned.
- Other verbs such as *solve, classify, and implement* require learners to **apply the information** they have learned.
- Still others such as *design, create and incorporate* require learners to **combine or synthesize knowledge to develop something new**.

The choice of verb we use in the learning outcomes will vary depending on what level of learning we can reasonably expect from our students at the end of a program.

TAXONOMY OF LEARNING OUTCOMES

The following table introduces some action verbs commonly associated with different levels of learning. A more comprehensive list of verbs and associated assessment tasks can be found in the TCDC office.

		Introductory		Developing		Proficient	
		Remember	Understand	Apply	Analyze	Evaluate	Create
Definition		Asks learners to remember or retrieve previously learned information from long-term memory; tell when, how many, who, or where	Asks learners to grasp the meaning of information, interpret ideas, and make predictions; explain, summarize or answer why	Asks learners to use previously learned methods, concepts, principles, and theories in new situations	Asks learners to break something into its constituent parts; determine how parts relate to one another and to an overall structure or purpose	Asks learners to make judgements and give defensible opinions for judgment based on criteria, processes, or standards	Asks learners to put elements together to form something new; reorganize into a new pattern or structure
	Verbs	arrange define describe find identify label list match name order outline recall relate report select state	associate compare contrast convert diagram estimate express identify indicate infer interpret paraphrase relate restate summarize translate	apply calculate chart choose compute construct dramatize illustrate implement manipulate modify operate produce sketch solve use	analyze breakdown categorize classify compare connect contrast correlate distinguish divide examine explain model outline separate subdivide	appraise argue assess conclude critique debate decide defend determine discriminate evaluate judge justify prioritize rate recommend	adapt assemble combine compose construct create design develop formulate generate incorporate integrate invent structure synthesize write

Level of Complexity 

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Potter, M. & Kustra, E. (2012). *A primer on learning outcomes and the SOLO taxonomy*. University of Windsor.

University of Waterloo (n.d.). *Writing Intended Learning Outcomes*. Retrieved from:
<https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/planning-courses/course-design/writing-learning-outcomes>

Other Useful Resources

University of Ottawa, *Program Learning Outcomes* <http://tlss.uottawa.ca/site/en/program-learning-outcomes>

University of Connecticut, *Assessment Primer: Goals, Objectives and Outcomes*
<http://web2.uconn.edu/assessment/primer/goals1.html>

University of Guelph, *Learning Outcomes* <http://www.uoguelph.ca/vpacademic/avpa/outcomes/>