

Program Learning Outcome (PLO) Best Practices

In support of UB's ongoing mission provide excellent programs of undergraduate and graduate education, and to meet all criteria for the standards of accreditation for the Middle States Commission on Higher Education, it is imperative for all programs to be able to

- Identify and document Program Learning Outcomes (PLOs)
- Link Program Learning Outcomes to the Institutional Learning Outcomes (ILOs) as established by the 2014 [Realizing UB2020 Report](#) with a curriculum map
- Effectively assess each PLO, ideally using both direct and indirect methods of assessment
- Continually meet or improve on each PLO, based on the results of the assessments.

Identifying and documenting Program Learning outcomes

All learning outcomes are statements designed to communicate what students should know, or be able to do, as a result of some intervention on behalf of the institution. Program Learning Outcomes (PLOs) are learning outcomes that are analyzed at the level of the program (as opposed to the course or institutional level). In practice, this means that results are reported on *beyond* individual students' performance (i.e., grades); rather, how *all* students in that program are exceeding, meeting, or not meeting that outcome. Consider using an [Assessment Framework](#) to create a plan for creating and assessing Program Learning Outcomes in your program.

Writing effective PLOs

Program Learning Outcomes should contain the following characteristics:

- Audience — the specific set of students to whom this outcome applies. For example: "graduate students"; "majors"; "students with at least 30 credit hours in the program of study."
- Behavior — the specific skill or competency that is being measured. For example: "evaluate a literary work based on selected and articulated standards"

- Condition — the context in which the learning takes place. In a Program Learning Outcome, this is often based on length of time in the program, or upon completing specific course requirements. For example: "by the completion of coursework"; "upon completion of MATH200, MATH201, and MATH205."
- Degree — the measurable criterion for success. This can be a percentage, a defined descriptor of quality, or a number. For example: "60% of students"; "mastery level."

Example: "Students of the English BA program will be able to evaluate a literary work based on selected and articulated standards at a proficient level (or better) upon the completion of all program-specific courses."

In the example above, student data (collected by faculty with an agreed upon assessment instrument) can be aggregated across sections and/or courses up to the program level in order to determine if the criterion was met.

[Link the PLOs to Support UB's ILOs](#)

Program Learning Outcomes do not exist in a vacuum; Programs should design their outcomes with the intent to support more broadly defined Institutional Learning Outcomes (ILOs), as ILOs provide a big-picture description of what all students (regardless of major) should expect to learn or be able to do as a result of attending the University of Buffalo. PLOs function to create context and a frame learning within a specific field of study for students, as well as to allow students to specialize in a specific field. It is required that Programs be able to link their PLOs to ILOs using a [Curriculum Map](#), which illustrates in which courses in the program the learning outcomes are being taught and to what degree.

[Effectively assess each PLO](#)

Program Learning Outcome statements should be meaningful (connected to the goals of the program and linked to at least one Institutional Learning Outcome), manageable (i.e., within the capacity of the program coordinator and faculty to assess), and measurable (i.e., have some way of being measured against a standard). In terms of effective direct assessment methods, a rubric to evaluate student artifacts or performance is ideal. The rubric should be designed to measure student learning independent of any grade on a particular assignment presented as evidence.

Grades alone are problematic as assessments of student learning since course grades reflect multiple learning outcomes and are impacted by [student non-cognitive factors and non-academic factors](#).

In addition to directly measuring student learning outcomes, programs are also able to assess indirectly using a student survey or course evaluations. Indirect assessments ask the student to reflect on their knowledge or experience, rather than demonstrate it, and so provide a limited (but still valuable) data set to analyze in the pursuit of measuring a PLO. For example, a PLO might be "Upon the completion of coursework, graduate students will express a commitment to ethical and professional responsibility and act accordingly." A survey to prospective graduates could be sent to ask students to self-report on their ethical behavior as a result of the program's coursework, as ethical behavior is difficult to manageably measure outside of the classroom.

Ideally, each PLO would have both direct and indirect methods of assessment when possible.

More information on Direct and Indirect Assessment can be found [by following this link to the OEE Assessment Glossary](#).

Continually meet or improve on each PLO, based on the results of the assessments

Based on the results of each assessment, Program Coordinators (in conjunction with faculty, staff, and students within the program) should determine what actions will be taken in order to continue to meet the outcome, what changes need to be made in the program in order to meet the outcome, or what changes need to happen to the outcome itself to be more reflective of the program's capacity. This step is essential to effective teaching, learning, and accountability, and should be specific to the PLO itself (not a reflection on the overall program).