

Quick Guide to Program-level Student Learning Outcomes

This quick guide was prepared by the WSU Office of Assessment for Curricular Effectiveness (ACE) and is intended to help WSU programs and faculty consider good practices for developing and updating program-level student learning outcomes (SLOs). ACE is also available to collaborate with WSU undergraduate degree programs to develop or update their program-level SLOs. Contact us at ace.office@wsu.edu for more information.

Introduction

The process of developing and regularly updating program-level student learning outcomes (SLOs) invites faculty to reflect on and translate disciplinary knowledge and skills into clear expectations for students in the major. At WSU, undergraduate degree programs are responsible for developing and regularly updating program-level SLOs that capture what faculty most want students to learn through the program's curriculum.

What Are Program-level SLOs?

Program-level SLOs identify core skills and knowledge that students are expected to achieve as they complete a program (e.g., core courses and electives for the major).

It is worth noting that program learning outcomes are sometimes confused with program outcomes. Program outcomes, more broadly, are end-results that are expected of students graduating from the program, such as obtaining employment, getting accepted into a graduate program, or passing a licensing exam.

Additionally, the terms learning outcomes, learning competencies, learning objectives, etc. are sometimes used interchangeably or with distinctions specified by a professional association. The term *learning outcomes* is commonly used at WSU and by ACE.

Why Are Program-level SLOs Valuable?

An effective degree program or major is more than a collection of courses. Program-level SLOs should guide an intentional curriculum designed to foster student achievement of those SLOs. In this context, program-level SLOs serve several important purposes and audiences, as they can:

- Make clear what students should expect from their educational experience
- Help students learn more effectively by explicitly stating what a student needs to know and do, contributing to student success and educational equity
- Help faculty plan a coherent undergraduate educational experience in the degree program and design courses and curricula to systematically advance a program's SLOs
- Allow faculty to assess student learning and gauge the effectiveness of a curriculum, informing adjustments to courses, curriculum, and instruction
- Communicate the intent of the degree program to prospective students, employers, and the public
- Support university accreditation, and specialized professional accreditation where applicable

How Are Course, Program, & Institutional SLOs Related?

Faculty provide students with SLOs at multiple levels, including course, program, and institutional SLOs:

- **Course-level SLOs** are relatively narrow in scope, articulating what students are expected to achieve as they complete a course. For courses that are required for the major, typically some course-level SLOs will contribute to student achievement of program-level SLOs. *Note: These required courses may also have course-level SLOs that aren't aligned with program-level SLOs.*
- **Program-level SLOs** are broader in scope, articulating what students are expected to achieve as they complete a program (e.g., core courses and electives for the major). Program-level SLOs should be addressed in multiple courses across the curriculum.
- **Institutional-level SLOs** (i.e., [WSU's Seven Learning Goals of Undergraduate Education and example learning outcomes](#)) are very broad in scope. Students are expected to achieve these learning outcomes as they complete a bachelor's degree (e.g., UCORE general education + the major). In general, through the achievement of program-level SLOs, students demonstrate specialized knowledge and skills in the discipline, as well as disciplinary achievement of some of WSU's Seven Learning Goals of Undergraduate Education (as appropriate to the disciplinary focus), through depth of study within the chosen academic field. WSU's Seven Learning Goals are expressed broadly so as to frame study in the major as well as general education.

How to Develop or Update Program-level SLOs

Step 1: Research & Reflection

A useful first step in developing or updating program-level SLOs is to take stock of what is happening in your discipline or field, your department/school or college, WSU more broadly, and the world at large. It's rarely a good idea to directly adopt SLOs from another source. Be sure to reflect on the mission, values, culture, and aims of your academic program in relation to any external sources.

The following resources may be useful sources of reference:

- Learning goals or standards stated by relevant disciplinary associations
- Program-level SLOs from similar programs at peer universities
- Feedback from employers or recent graduates
- Input from an advisory board
- Admissions criteria for post-graduate academic programs targeted by your students
- [WSU's Seven Learning Goals of Undergraduate Education \(and example learning outcomes\)](#)
- AAC&U's [LEAP Framework](#), [Essential Learning Outcomes](#), and [Degree Qualifications Profile](#) (DQP)
- AAC&U's [VALUE Rubrics](#)

Step 2: Collaboration

Students learn more effectively when their learning experiences are purposeful, coherent, and integrated, making it important for faculty to collaboratively determine program-level SLOs that are specific and critical to the discipline. It is often helpful to begin by compiling and sharing the results of the research and reflection step (step 1) with other faculty, as these conversations can sometimes be challenging. It may also be helpful to first work on your program-level SLOs amongst a faculty committee, prior to sharing with all program faculty (see step 4).

The following questions might be useful in directing faculty discussions about program-level SLOs:
Note: ACE staff are also available to help facilitate discussions as part of working with programs on developing or updating their program-level SLOs, [contact us](#) for more information.

- Why do we offer this program? Why is it important that undergraduates study or experience this?
- What is this program all about? What do we want students to get out of this program?
- What do we want students to know or be able to do when they complete this program? What kinds of culminating experiences or projects should our seniors be able to do? What skills or knowledge are demonstrated as part of these culminating experiences or projects?
- What do our students do after they graduate? What are the most important things they need for success in those pursuits?
- How do we want this program to prepare students for whatever they do after graduation?
- What makes our graduates successful?
- What do we value most about our discipline or field?

Step 3: Writing or Revising Your Program-level SLOs

Generally speaking, a set of program-level SLOs is not intended to be a comprehensive list of every single thing students will learn in a major or degree program (*with an important exception: some specialized program accreditors do have long lists of required competencies*). Instead, an effective program focuses on a few key program-level SLOs that are addressed across the curriculum, because the faculty want students to learn these important things really well (and students learn best through repeated practice in a variety of contexts, deepening in complexity and rigor). While not a hard and fast rule, a set of 5-7 program-level SLOs allows programs to focus on the knowledge and skills that are most meaningful.

- See the ACE website for [examples of program-level SLOs from WSU programs](#) in various disciplines.

Main Components of Program-level SLOs. Effective learning outcomes statements clarify expectations through precise word choice. Learning outcome statements can be broken down into three main components:

1. An introductory phrase that specifies the context of the learning outcome
2. An action verb that clearly identifies the concrete knowledge or skill to be demonstrated
3. A learning statement that specifies what learning will be demonstrated

For Example: Students graduating with a BA in English Language & Literature will be able to:

- Communicate effectively in academic, professional, or creative writing
- Analyze literary texts using appropriate literary and critical vocabulary
- Design a research project using the appropriate methodology

Before writing or revising your program-level SLOs, it might be helpful to consider these questions which focus on outcomes in slightly different ways:

- In your experience, what evidence tells you when students have achieved specific knowledge or skills (i.e., how do you know when they're "getting" it?)
- What would a skeptic need (evidence, behavior, etc.) in order to see that your students are achieving specific knowledge and skills?

Importance of Transparency. Making program-level SLOs explicit – i.e., articulating what a student really needs to know and do in order to succeed – promotes equal opportunity for all students. Vague outcomes do not help individual students fill in gaps or misconceptions they have about the subject or about learning.

To increase program-level SLO transparency, use language which highlights the observable behaviors or skills students will display (e.g., evaluate, critique, produce, design). Concrete verbs such as “define,” “identify,” or “create” are more helpful for teaching, learning, and assessment than verbs such as “understand” or “know.” What does “understanding” look like? How do we know if a student “knows” something? Using verbs that specify a type of thinking or behavior can help faculty design activities and develop assignments, exams, and projects. In addition, students are clear on what they need to be able to do to demonstrate their learning achievement. *Note: See the [appendix](#) for a table of action verbs that may be helpful for describing knowledge and skills in program-level SLOs.*

Transparent program-level SLOs:

- Describe what students know or can do, rather than what courses cover or what faculty will teach
- Focus on key skills, knowledge, and/or abilities for success in the discipline or related fields/careers (*Note: for degrees with multiple majors/options program-level SLOs should be relevant to all majors/options or should be tailored to specific majors/options*)
- Describe specific behaviors that a student should demonstrate at the end of the program (ideally, each program SLO is “single-barreled,” with one concrete action or process)
- Are observable and measurable, i.e., can be demonstrated by a student in an assignment or project
- Are easily understood by students, faculty, advisors, accreditors, and the general public (i.e., avoid unclear terms)
- See ACE’s [Quality Checklist for Program-level SLOs](#) for more information and to evaluate the quality of your program-level SLOs.

Step 4: Consensus

Effective program-level SLOs are widely accepted and supported by program faculty members. For degree programs offered at multiple campuses/locations, program-level SLOs should be supported by program faculty at each campus/location.

Some programs may choose to have faculty formally approve program-level SLOs (e.g., via a vote), while other programs may choose more informal acknowledgements of approval (e.g., general consensus during a faculty meeting). Regardless of the process a program chooses, it is important to note that developing and updating appropriate and useful program-level SLOs is often an iterative process; it’s not unusual to refine outcome statements prior to reaching consensus.

Follow Up Steps: Sharing and Using Program-level SLOs

- **Publicize program-level SLOs** in the WSU Catalog, on websites, in handbooks, etc. to help make program-level SLOs accessible to students, faculty, advisors, and other audiences. In accordance with WSU's [Educational Policies and Procedures Manual](#) and NWCCU accreditation standards, all program-level SLOs must be published in the [WSU Catalog](#).
- **Use program-level SLOs to guide course and curriculum planning and development** so students experience a cohesive curriculum. Consider including program-level SLOs on course syllabi, alongside course-level SLOs, as appropriate.
- **Use program-level SLOs to guide decisions about class activities, assignments, and exams**, as concrete program-level SLOs can help instructors design activities and assignments that build and reinforce key skills.
- **Use program-level SLOs to shape assessment efforts** and faculty conversations surrounding student learning.
- **Develop an internal process for sharing program-level SLOs with new faculty and instructors**, for example at an annual departmental training for new faculty or instructors.
- **Revisit and update program-level SLOs on a reoccurring basis, as appropriate to the program.** A general rule of thumb is for faculty to review program-level SLOs at least every three years and update as needed.

Additional Resources and Scholarship

- Brooks, S., et al. (2014). [Learning about Learning Outcomes: The Student Perspective](#). Teaching in Higher Education. 19 (6).
- Hutchings, P. (2016). [Aligning Educational Outcomes and Practices \(Occasional Paper #26\)](#). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).
- Suskie, L. Blog posts categorized 'Learning Goals', A Common Sense Approach to Assessment in Higher Education Blog. Available at: <https://www.lindasuskie.com/apps/blog>
- Suskie, L. (2018). Chapter 4: Learning goals: Articulating what you most want students to learn. In *Assessing Student Learning: A Common Sense Guide*. San Francisco, CA: Jossey-Bass.
(Note: Please contact ACE to borrow this book)

Appendix: Table of Cognitive Processes and Action Verbs

Below are action verbs that can be useful for writing student learning outcomes, based on Revised Bloom's Taxonomy.

Cognitive Process	Description of Learning	Associated Verbs
Create	<i>Put elements together to form a coherent whole; re-organize elements into a new pattern or structure</i>	Categorize, combine, compose, construct, devise, design, formulate, generate, hypothesize, invent, modify, organize, plan, perform, prepare, problem-solve, produce, rearrange, reconstruct, relate, reorganize, revise, rewrite, synthesize, summarize, write
Evaluate	<i>Make judgments based on criteria or standards</i>	Appraise, argue, assess, compare, conclude, contrast, coordinate, criticize, decide, describe, detect, determine, discriminate, estimate, explain, interpret, judge, rate, relate, revise, summarize, validate, value
Analyze	<i>Break material down into constituent parts and determine how the parts relate to each other and to the whole</i>	Appraise, break down, calculate, categorize, compare, contrast, debate, detect, deduce, determine, diagram, differentiate, discriminate, distinguish, examine, experiment, focus, infer, inspect, integrate, interpret, organize, outline, point out, question, relate, select, separate, sub-divide, test, translate
Apply	<i>Use concepts or ideas in concrete situations</i>	Change, choose, classify, compute, demonstrate, develop, discover, employ, execute, illustrate, infer, investigate, manipulate, modify, operate, organize, outline, practice, predict, prepare, produce, relate, restructure, show, solve, transfer, use
Understand	<i>Construct meaning from</i>	Clarify, classify, convert, describe, discuss, distinguish, estimate, explain, extend, find, generalize, give examples, give in own words, identify, illustrate, interpret, map, locate, paraphrase, read, rearrange, represent, restate, review, rewrite, summarize, translate
Remember	<i>Retrieve, recognize, and recall something previously encountered</i>	Define, describe, identify, label, list, match, name, outline, reproduce, select, state, recall, recognize, record

Note: Adapted from: Anderson, L. and Krathwohl, D. (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York, NY: Addison Wesley Longman Inc.