Guidelines for Well-Written Student Learning Outcomes (SLOs)
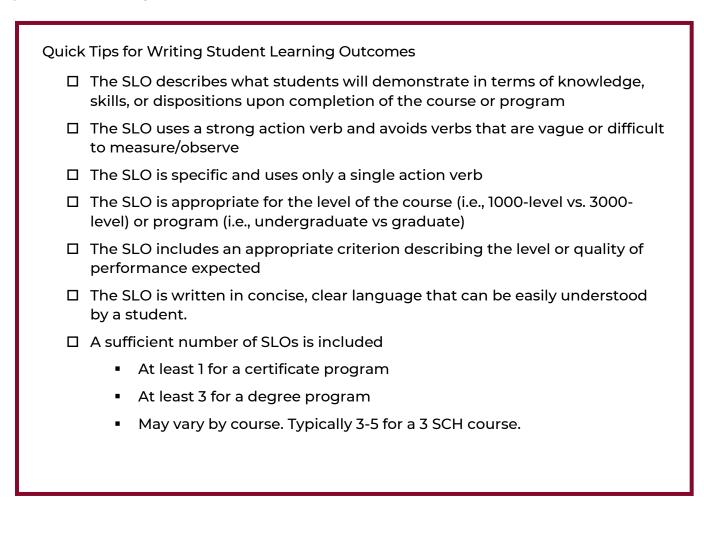
Guidance for Developing Typical SLOs

The following guidelines are provided to assist you in creating student learning outcome (SLO) statements that meet usual assessment expectations for courses and programs.

Course SLOs are required for all courses at TWU and are documented in the Course Inventory Management (CIM) system. Course SLOs should be added for any newly proposed course and periodically updated in the CIM system when the program faculty revise course content or requirements.

Program SLOs are required for all academic degree programs and certificate programs at TWU and are documented in each program's Academic Institutional Improvement Assessment Plan (AIIAP) housed in the Academic Assessment Portal. Program SLOs should be added for any newly proposed program and periodically updated in the AIIAP when the program faculty revise the program curriculum or assessments.

Please refer to the Quick Tips provided and the detailed guidelines that follow as you develop your student learning outcomes.

Quick Tips for Writing Student Learning Outcomes

- ☐ The SLO describes what students will demonstrate in terms of knowledge, skills, or dispositions upon completion of the course or program
- ☐ The SLO uses a strong action verb and avoids verbs that are vague or difficult to measure/observe
- ☐ The SLO is specific and uses only a single action verb
- ☐ The SLO is appropriate for the level of the course (i.e., 1000-level vs. 3000-level) or program (i.e., undergraduate vs graduate)
- ☐ The SLO includes an appropriate criterion describing the level or quality of performance expected
- ☐ The SLO is written in concise, clear language that can be easily understood by a student.
- ☐ A sufficient number of SLOs is included
    - ▪ At least 1 for a certificate program
    - ▪ At least 3 for a degree program
    - ▪ May vary by course. Typically 3-5 for a 3 SCH course.

Student Learning Outcomes Defined*

Outcomes

- Express what the <u>student</u> will be able <u>to do</u> with the essential knowledge, skills, and dispositions gained by the <u>end</u> of a course or academic program

- Focus on the *product (performance)* rather than the *process*

- Are *measurable* (i.e., identifiable or observable)

- Are *detailed* and *specific* – explicitly stated

- Include appropriate *action verbs* such as define, compare, create, design, etc.

- Should be *rigorous* but realistically *attainable*

Note that if a student learning outcome is *essential*, it should be assessed.

*Modified from: University of South Carolina. (2010). *A faculty and staff guide to creating learning outcomes.* Columbia, SC: National Resource Center for The First-Year Experience & Students in Transition.

Components of Student Learning Outcomes

Well-written SLOs tend to include (or sometimes imply) 4 components (ABCCs):

- A = Actor

  Provides a "stem" identifying who will be performing the learning outcomes – "Students will be able to . . ."

- B = Behavior

  Describes what the student will be able *to do*. Use an action verb.

- C = Conditions

  Provides specific details about the context, setting, and/or conditions under which the behavior will occur.

- C = Criterion/Criteria

  Defines the minimum acceptable level of performance. The focus is on the expected "quality of performance." Often the criterion is included using generic quality indicators of performance such as critically, accurately, appropriately, effectively, concisely, etc. Although criteria commonly appear at the beginning of the SLO as an adverb modifying the action verb, they may also be placed in other parts of the SLO and function as a variety of types of modifiers. Some examples are provided in the following table.

Part of Speech	Example SLO
Adverb, preceding the action verb	**Accurately** outline the components of a business plan for a selected industry.
Adjective, preceding the object	Choose **appropriate** interventions to manage patient pain in a clinical setting.
Relative clause, following the object	Create a grant proposal **that is well-researched and fully-developed.**
Participial phrase, following the object	Design a lesson plan for a STEM classroom, **integrating evidence-based and age-appropriate instructional strategies.**
Prepositional phrase, following the object	Structure an essay **around a thesis**

Selecting Action Verbs

The following guidelines apply to selecting an action verb when writing a student learning outcome.

- Keep the SLO simple and clear by only using a single action verb per SLO.

- Avoid use of verbs that are difficult to measure or directly observe such as, "know," "recognize," "value," "demonstrate," "appreciate," etc. unless you describe student performance actions that will indicate their knowledge, recognition, value, and ability to demonstrate or appreciate.

- Select an action verb that is at an appropriate level for the level of the course or program.

Selecting an action verb from an existing taxonomy, such as Bloom's Taxonomy, can help ensure that a student learning outcome is measurable. Bloom's Taxonomy is a hierarchical design of ways of thinking (action or performance verbs) that classifies learning or cognition into six levels, from less to more complex.

- Level 1 – Know

- Level 2 – Understand

- Level 3 – Apply

- Level 4 – Analyze

- Level 5 – Evaluate

- Level 6 – Create

Note that action verbs found at lower levels of the taxonomy are often implied at the higher levels. Consider the following SLO:

Clearly comprehend and apply early childhood theories. (Redundant due to implication)

The action verb "comprehend" is equivalent to *understand* (Bloom's Level 2), while "apply" is a Level 3 action verb. But if one can accurately apply the theories, then one likely comprehends them. In this example, the SLO could be restated as follows:

Clearly apply early childhood theories. (Improved version)

In general, one would expect 3000 and 4000-level courses to include action verbs derived from the more complex levels of Bloom's Taxonomy (Levels 4-6). Graduate level courses would typically include action verbs from the highest levels of Bloom's Taxonomy.

Course Level	Example SLO	Notes
1000-level	Write a summary.	Though the word *write* appears at this level, a **summary** is much easier than a **literature review**.
2000-level	Compare the positions of two authors.	
3000-level	Evaluate multiple arguments on a subject.	
4000-level	Write a literature review covering scholarly research in the area of study.	Though the word *write* appears at this level, a **literature review** is much more difficult than a **summary**. The term literature review, moreover, implies a range of expectations and standards, so that verbs like analyze and evaluate aren't necessary here.

Exceptions

Common situations in which you might want to use a lower-level verb for an upper-level course include:

1. You might need to use a lower-level verb for an upper-level course if students will be introduced to new material or a new subtopic that is not covered in lower-level courses or prerequisites. For example, students in a 5000-level graduate seminar might have to summarize or explain major theories or methodologies that would be far beyond the ability of undergraduates to understand. Example: Students will be able to … Explain the methods involved in meta-analysis research.

2. You might have a lower-level verb but a high-level predicate. For example, identifying the cause of a symptom is more difficult than creating a mud pie.

3. A sequence of courses might use the same verb at each level, but set different benchmarks for success in the predicate, based on external standards. For example, our

Spanish I and Spanish II courses both use communicate as a verb in SLOs, but Spanish I expects students to reach the low-to-mid level of performance on ACTFL standards, while Spanish II expects them to reach the mid-to-high level.

Additional References for Action Verbs

[Selected Action Verbs from Bloom's Taxonomy](#)

[Adelman, C. (2015, February). *To imagine a verb: The language and syntax of learning outcomes statements* (Occasional Paper No. 24). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).](#) (see pages 17-19, Part IV: Productive Active, Operational Verb Groups)

Common Student Learning Outcome Themes

Often, student learning outcomes fall into common categories or themes. These themes express similar root behaviors exhibited across a variety of contexts and content areas. Understanding which common theme your SLO relates to may assist you in writing your SLO.

Common student learning outcome themes include:

Background knowledge

Outcomes that focus on comprehension of theories, concepts, or practices specific to the discipline

Example: Correctly identify the major movements and styles of Renaissance art.

Communication

Outcomes that focus on oral, written, or visual communication

Example: Present the findings of a research project using audience appropriate terminology and visualizations.

Support, analysis, and synthesis

Outcomes that focus on supporting arguments, synthesizing ideas, or interpreting, analyzing, and evaluating information

Example: Accurately evaluate the nutritional needs of a patient using results of diagnostic assessments.

Use and application

Outcomes that focus on applying knowledge and content to professional practice and routine challenges in a professional domain

Example: Correctly apply concepts of probability when working with distributions of data.

Problem solving and planning

Outcomes that focus on applying theory to creatively solve problems, generate plans, or propose novel solutions and methods

Example: Design a research study that addresses an original topic of scholarly inquiry.

Professionalization

Outcomes that focus on development of behaviors and attitudes appropriate to a professional in the discipline (for example, ethical behavior, collaboration skills, or self-reflection)

Example: Articulate a personal business philosophy that adheres to common principles of business ethics.

Examples of Well-Written Student Learning Outcomes

The following student learning outcomes are provided as examples of how to apply the ABCC components (described above) when writing specific, measurable student learning outcomes for either courses or programs. The components are color-coded in the examples below to illustrate how they can be structured in various ways.

Actor

Behavior

Condition

Criterion

Course Learning Outcomes

By the end of the course, students will be able to . . .

Example SLO	Notes
Clearly articulate the scientific method and its role in scientific inquiry concerning the environment.	This SLO uses the action verb "articulate" to describe a learning behavior related to communication. The adverb "clearly" serves as the criterion that describes the quality of articulation being sought.
Structure an essay on a question of policy, maintaining unity and coherence.	Notice that in this SLO, the criterion appears at the end of the sentence as a participial phrase that describes how the essay should be structured.

Critically analyze current and historical trends in sculpture installation art.	Including a condition in the SLO helps specify the condition under which a learning behavior will occur. Analyzing trends may be a learning behavior targeted in many learning outcomes, but this SLO states that this course will look specifically at trends in sculpture installation art.

Program Learning Outcomes

By the end of the program, students will be able to . . .

Example SLO	Notes
Determine solutions to financial problems using a variety of analytical tools and techniques.	In this SLO, the criterion appears as a participial phrase following the object and describes how the solutions will be determined. The context or condition for the solutions is solutions to "financial problems."
Gather relevant evidence to support arguments about a problem in history.	A criterion may also be placed following the action verb and before the object, where it functions as an adjective. In this case, both "relevant" and "to support arguments" serve as criteria describing the quality of evidence being sought. The action verb "gather" is used to specify a learning behavior that involves support, analysis, and synthesis.
Competently operate diagnostic testing equipment in a medical laboratory.	Here, the condition describes the specific setting in which the learning behavior will occur – in a medical laboratory.

What to Do When the Generic Guidelines Above Do Not Fit Your Needs

The guidelines above will help you create student learning outcome statements that meet usual assessment expectations.

However, sometimes the formula described above may not do what you need it to do. In such cases, you may break from the formula, but when you propose a course or program, you should explain why the outcomes are suitable for the contexts of your course.

How to do this for course proposals: At the bottom of the online New Course Proposal interface, where you propose a new course, you will find a text box labeled "Additional Information" and an attachment function labeled "Supporting Documents." You may use either of those options to include brief explanations for SLOs that need to deviate from the generic guidance provided in this resource.

How to do this for program assessment SLOs: The assessment plan document can be edited. Under Section II, you may include footnotes addressing justifications for any outcomes that need to deviate from the generic guidance in this resource.

Acknowledgement

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2024 Update (expanded examples)

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