**Weaving CLOs into Course Design**

Course Learning Objectives (CLOs) are derived from a variety of sources, such as state regulations, certifying bodies, and other relevant entities, depending on the course. Regardless of their origin, each course encompasses specific content that must be covered within a set timeframe. This guide aims to assist instructors in creating module outcomes based on their course CLOs.

Goals, Objectives and Outcomes

When considering the relationships between various terms, it's crucial to start with those that are frequently confused. Terms like goals, objectives, and outcomes are often used interchangeably, but they each have distinct meanings.
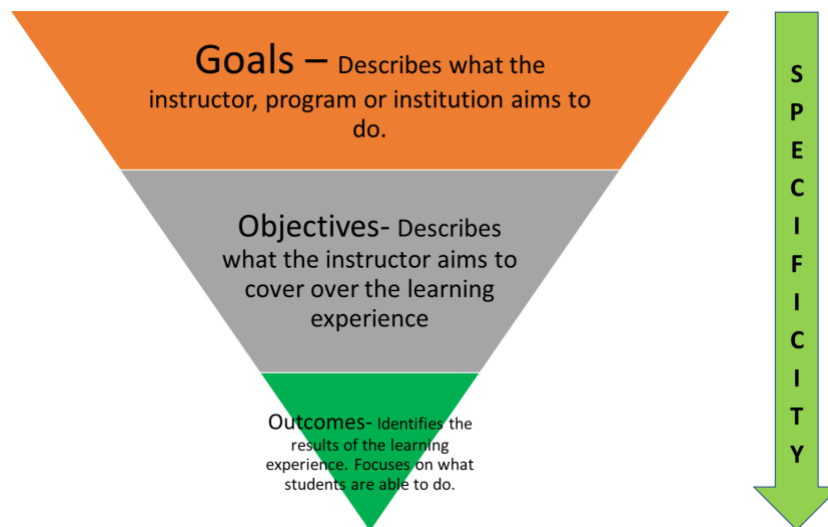
Learning goals - Broad statements that describe long term, attainable ideas but are generally not measurable. It often describes the big picture vision that the instructor, program or institution intends to do.

Example: Learners will critically on concepts related to the weather.

Learning objectives - Measurable competencies derived from broad goals. Learning objectives are often teacher centered and describe what the instructor aims to cover over the learning experience. Focuses and helps learners know who instructors expects of them.

Example: Discuss the various types of weather events

Learning outcomes – Describes what students should be able to do at the end of the course. Identifies the results of the learning experience. Learning outcomes uses measurable observable verbs since they should be the basis for the assessment. Focuses on what students are able to do at the end of the learning experience.

Example: Match the different types of weather events to the times of the year in which they occur.

Linking Institutional Goals and Course Learning Outcomes

There should be a clear connection from institutional strategic goals down to your course modules. Strategic goals outline what the college aims to achieve and provide broad statements about the institution's direction. These goals should shape the institutional learning objectives (ILOs), which then influence program learning outcomes, course learning outcomes, and ultimately, your module learning outcomes. Take some time to review your program learning outcomes. Can you see the relationship between the ILOs and your CLOs?

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Strategic Goals  →  Institutional Learning Outcomes  →  Program Learning Outcomes  →  Course Learning Outcomes  →  Module Learning Outcomes
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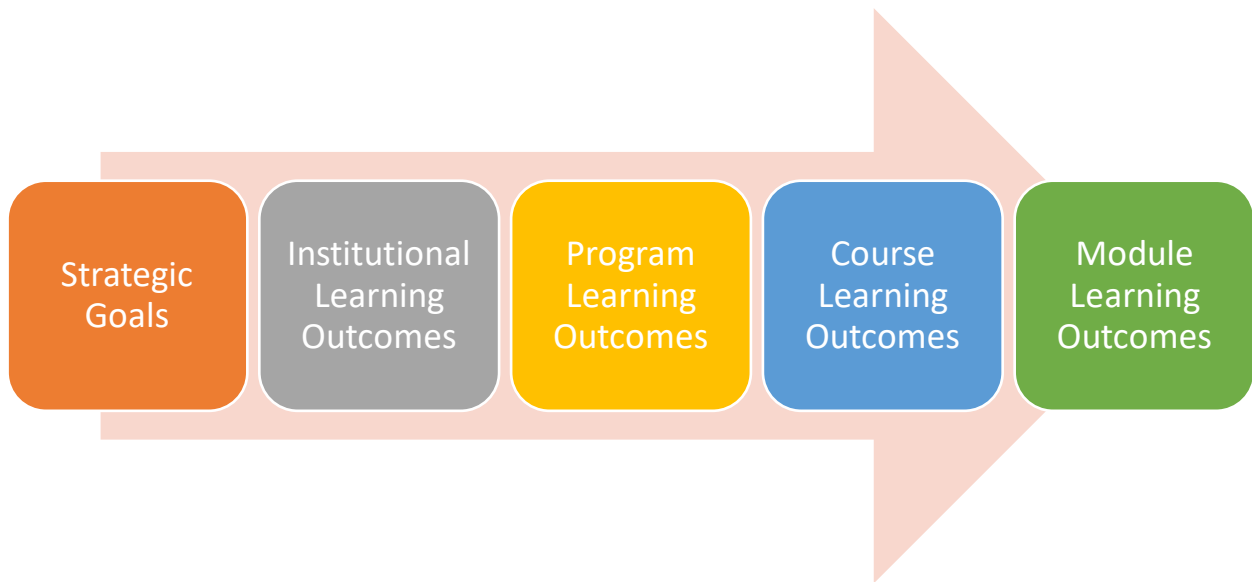
Learning Taxonomies

The domains of learning, established in 1956 by educational psychologist Dr. Benjamin Bloom and his team, consist of three categories of education that address different aspects of education. Each domain outlines specific features and objectives aimed at engaging students from various perspectives, making learning more focused and multidimensional. Bloom's taxonomy is a hierarchical framework that details the progressive steps involved in the learning process.

The three domains of learning include

- **Cognitive Domain**: This domain emphasizes building knowledge, critical thinking, and problem-solving skills. It includes processes such as remembering, understanding, applying, analyzing, evaluating, and creating, as outlined in Bloom's revised taxonomy.

- **Affective Domain**: This domain focuses on attitudes, emotional development, and interpersonal growth. According to Krathwohl, Bloom, and Masia (1973), it

encompasses how we emotionally engage with things, including feelings, values, appreciation, enthusiasm, motivation, and attitudes.

- **Psychomotor Domain**: This domain is centered on skill development, particularly the mastery of physical and motor skills. Skill development in this domain requires practice and is assessed based on speed, precision, distance, procedures, or techniques in execution, as noted by Arkansas State University.

Writing Learning Outcomes

Remember learning outcomes are designed to focus learners on what they need to achieve at the end of a learning experience. Writing proper learning outcomes takes careful thought and understanding of some key steps.

- Learning outcomes must be SMART, **S**pecific, **M**easurable, **A**ttainable, **R**elevant, **T**ime-bound
- Sequencing and Levels: When writing learning outcomes pay attention to their sequencing and levels. For example, think about moving from lower to higher level skills.
- Think about the structure of the learning outcome. Who is going to complete the task? What is the observable behavior? Is there a criterion for judging completion of the outcome? What are the conditions under which the behavior might occur?

Reviewing a Learning Outcome

Let's spend some time reviewing the learning outcomes below. The example below shows learning outcomes designed for a class on digital literacy. Let's start by applying some of the criteria outlined above.

Digital Central a digital literacy course which covers various aspects of digital fluency, including hardware, online etiquette, internet safety, and more.

Learning Outcomes:

At the end of this course learners will be able to,

- Enhance digital skills with mobile-friendly lessons.

- Equip service providers with skills to support digital literacy and workforce readiness.

- Explore essential Internet skills, including email, search engines, and online research.

- Learn to protect yourself online and optimize your digital presence.
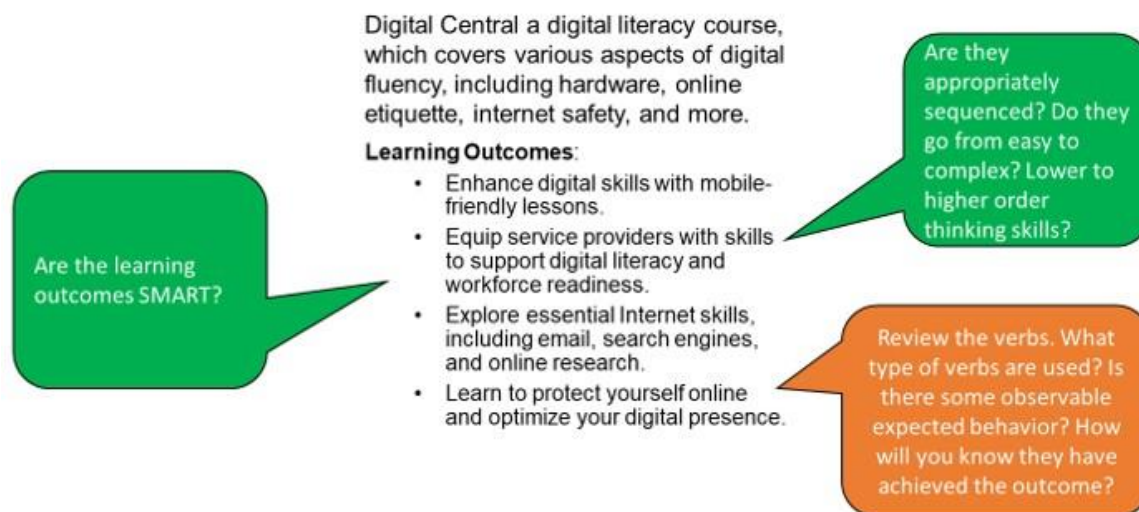
Revised version:

Digital Central a digital literacy course, which covers various aspects of digital fluency, including hardware, online etiquette, internet safety, and more.

Learning Outcomes:

At the end of this course learners will be able to,

- Navigate mobile lessons using digital skills.

- Discuss strategies to support digital literacy and workforce readiness.

- Demonstrate essential internet skills by using email, search engines, and online research.

- Apply strategies to protect yourself online.

- Create a digital profile using strategies designed to optimize your digital presence.

Weaving learning outcomes throughout your modules.

1. Choose a CLO.
2. Match the CLO to a topic/module.
3. Think about the what you would want the students to actually do at the end of the topic/module?
4. Think about how the content can be broken up into smaller chunks.
5. Ask yourself how you can develop learning outcomes to these small parts.

Things to consider when you begin weaving.

- CLOs can be very broad. Some CLOs may need to be threaded through more than one module depending on the course. For example, a broad CLO dealing

with communication will need to be thread throughout the course. This means that associated module learning outcomes may appear in more than one module.

- Some CLOs can be very specific to a module and its content.

An example

CLO	Explain the fundamental chemical concepts in general chemistry.
Topic	Measurement (This is one of many fundamental concepts).
Mastery expectation	Use the concepts related to measurement.
Module learning outcomes	At the end of this module students will be able to • Define the metric system. • Differentiate between the metric system and the imperial system. • Perform simple calculations using the metric system. • Use the metric system in unit conversions. • Use the metric system in density calculations.

In this example the topic measurement is broken down into smaller steps, and is sequenced from easier to complex concepts or activities.

Why is this useful?

For instructors

- It helps break down CLOs and content into small chunks.
- It helps instructors organize their thoughts as they develop the content.
- Helps instructors think about the link between learning outcomes, activities and assessments.

For students

- Students are able to understand what is expected of them in modules.
- Students are able to organize their learning, based the outcomes.
- Students are able to connect the activities and assessments to learning outcomes.

References:

Bloom's Revised Taxonomy, Cognitive, Affective and Psychomotor

Krathwohl, D.R., Bloom, B.S., Masia, B.B. (1973). *Taxonomy of Educational Objectives, the Classification of Educational Goals. Handbook II: Affective Domain*. New York: David McKay Co., Inc.