

How to Guide:

Writing Learning Objectives

Writing Course Learning Objectives

Effective learning objectives specify what we want students to understand, know, and be able to do at the end of a course or learning activity.

Learning objectives

- Make course learning expectations transparent
- Increase students' awareness of their learning and encourage reflection about learning
- Establish a common language among faculty, students, and stakeholders for describing and assessing course concepts and program curriculum
- Provide advisers with a useful tool for helping advisees make decisions about which courses to take
- Help satisfy accreditation requirements

Designing or revising a course is often an iterative process. If you discover content, activities, or assessments that do not contribute to achieving course learning objectives, then you should either revise the content, activities, or assessments, OR revise the course learning objectives.

Graduate level courses typically have 5-8 course learning objectives. If you find yourself with a much longer list, check for overlap to determine if any objectives can be combined or eliminated.

1. Answer the Questions below PRIOR to Articulating Your Course Learning Objectives

Consider the rationale for your course

- What big questions will the course help students answer (*What do you want to persuade your students to believe or question*)?
- How will your course help students locate the critical dialogues and key arguments within your discipline?
- How does your course lay a foundation for courses that follow it or build on what students have learned in other courses?

When students have completed the course

- Which authentic (real-world practice or research) tasks will they be able to perform?
- What concepts will they be able to apply?
- What kinds of analysis will they be able to carry out?
- What types of problems will they be able to solve?
- What intellectual abilities (or qualities) will they develop?

2. Draft Your Learning Objectives

You may want to consult Bloom's Taxonomy of the Cognitive Domain (see the last page of this document) for suggested verbs aligned with the 6 levels of cognitive processes (for background information on Bloom's Taxonomy

see Vanderbilt University's [Bloom's Taxonomy](#) overview). Some people discount Bloom's Taxonomy because it defines "understanding" at a low level of cognition. In addition to Bloom's Taxonomy, you may want to consider the [SOLO Taxonomy](#) or Wiggins and McTighe's [Understanding by Design](#) for other strategies. Your goal is to identify verbs that align with what you want your students to know, understand, or be able to do at the end of the course.

Your course learning objectives should complete the following stem:

Upon successfully completing this course, students will be able to...

Verbs to Avoid: The following verbs are ill-defined and thus typically difficult to assess

- Appreciate
- Be aware of
- Be familiar with
- Become acquainted with
- Compare and contrast
- Comprehend
- Cover
- Discuss (*it's difficult to articulate the level of sophistication required*)
- Enhance knowledge of
- Gain knowledge of
- Increase awareness of
- Know
- Learn
- Realize
- Study
- Understand (understand is difficult to assess because it can signify both lower-end cognition (recognize) and deeper learning (the ability to distinguish evidence from argument))

Examples of JHSPH course learning objectives

- Identify biases and their consequences in published literature
- Explain the basic concepts of data quality, summarization, and presentation
- Identify the "weakest links" in clinical management of HIV infection at individual and population levels
- Analyze alternatives in a policy environment using a rational decision making model
- Critique the ethical issues and human rights concerns raised by family planning programs
- Perform a two-sample test and interpret the results
- Apply modern molecular biology techniques to the evaluation of an influenza outbreak
- Link scientific questions with appropriate analytical methods

3. Review Your Course Learning Objectives

Are your learning objectives

- Student-centered: "After successfully completing this course, students will be able to"?
- Written using action verbs? (*see Bloom's Taxonomy for some examples*)
- Well-defined? (*see verbs to avoid above*)
- Aligned with course learning activities and assessments?

- Focused? (*targeting a specific aspect of expected performance—e.g. Explain the basic concepts of data quality NOT Explain concepts*)
- Measurable and observable? (*learning activities and assessments will demonstrate students' progress toward the objective*)
- Realistic and achievable? (*consider the length of the term or class session*)
- Relevant and authentic? (*learning objectives should match, as nearly as possible, the real-world tasks of professionals in practice or research rather than decontextualized or classroom-based tasks*)
- Targeting high levels of cognition? (*try to write learning objectives that ask students to do more by using their recall and understanding to apply, analyze, synthesize, or evaluate. Introductory courses may include some lower level objectives at the remembering and understanding levels*)
- Transferable? (*students will be able to apply what they've learned to new situations*)
- Aligned with departmental and program competencies?

4. Revisiting Your Learning Objectives

You may want to revisit learning objectives for an existing course. The most common issues are the level of cognition targeted (often too low), a lack of clarity, and improper alignment with learning activities and assessments.

Consider the following examples of cognitive levels for a mathematics course:

- State theorems (*Memorization and recall—Bloom's Level 1: Remembering*)
- Apply theorems to solve problems (*Applying knowledge—Bloom's Level 3: Applying*)
- Design a matrix that determines when a given theorem applies (*Meta-cognitive decision-making skills—Bloom's Level 6: Creating*)

Are your learning objectives written clearly?

For example:

Original: Describe and create a social media plan for your organization

Revision: Create a social media plan for your organization

Avoid using more than one action verb in a learning objective. *Create* requires a higher level of cognition, therefore it can be assumed that students will be able to describe the process prior to applying it.

Consider the alignment of your objectives with learning activities and assessments

Returning to the mathematics example above,

- State theorems (could be assessed with multiple choice or fill-in-the-blank questions)
- Apply theorems (best assessed without multiple choice prompts but well-written questions could measure students' ability to apply to some extent.)

- Design a matrix (assessed by asking students to design a matrix, working alone or collaboratively)

Another example

Explain the basic concepts of data quality, summarization, and presentation

When we ask students to explain, we typically want to gauge their understanding by asking them state, in their own words, facts or ideas that have been presented in class or through learning materials. Their ability to explain could be assessed through a written assignment, presentation, or classroom activity.

Note that they are not being able asked to work at higher cognitive levels

- Apply: employ standards to determine the quality of given data
- Analyze: examine a dataset
- Evaluate: monitor data quality for an actual surveillance program

For more information about writing and using course learning objectives, visit [CTL's Teaching Toolkit](#)

Learning Objective Verbs Associated with Bloom's Taxonomy of the Cognitive Domains

Can be achieved through active or passive learning		Can be achieved only through active learning			
Achievement = Reproducing	Achievement = Performance	Achievement = Meaning Seeking	Achievement = Meaning Seeking	Achievement = Development & Growth	Achievement = Development & Growth
					Creating
					assemble
				Evaluating	collect
				appraise	construct
			Analyzing	assess	create
			analyze	critique	design
		Applying	calculate	detect	formulate
		apply	categorize	eliminate	generate
	Understanding	demonstrate	contrast	evaluate	invent
	cite examples	determine	criticize	judge	manage
Remembering	classify	discover	debate	monitor	plan
define	compare	employ	differentiate	rate	prepare
describe	explain	execute	discriminate	revise	produce
identify	express	illustrate	distinguish	test	propose
list	infer	implement	examine		
name	interpret	operate	experiment		
recall	locate	practice	find		
record	recognize	schedule	inspect		
relate	report	sketch	integrate		
repeat	restate	use	organize		
	summarize		question		
	translate				

More about Bloom's Taxonomy: <http://cft.vanderbilt.edu/teaching-guides/pedagogical/blooms-taxonomy/>