

# Writing Learning Outcomes

Learning outcomes are statements that describe the knowledge, skills, and attitudes students are expected to develop in your course. For each class you teach, you will want to come up with **3-4 learning outcomes** that **summarize the overarching expectations of that lesson**. In this way, learning outcomes are central components of your weekly planning and overall course design, which say to students, “I designed the lessons and activities in this course to help you develop these skills or bodies of knowledge. If you do the work and take feedback into account, you will become more practiced at these things. To pass this class, you must illustrate that you have developed these skills.”

## WHY USE LEARNING OUTCOMES?

First, constructing and sharing learning outcomes helps to communicate with students what you expect of them – this is fair to students, helps to avoid misunderstandings, and gives a shared reference point should problems arise with regards to course expectations. Second, explicit learning outcomes set a (high) minimum standard for students to work to meet or exceed. Finally, thinking through and articulating your course activities, assessments, and content helps to ensure that they are aligned in a coherent way; in a sense, learning outcomes are the blueprints of course design!

## HOW TO WRITE A LEARNING OUTCOME

1. Start with **stem** (see below)
2. Choose appropriate level and domain in Bloom’s Hierarchy of Learning (see Table 1)
3. Add an **ACTION WORD** which corresponds with the chosen level and domain (see Table 2)
4. Add specific content/value/attitude/behaviour

For example:

By the end of this class, students will be able to

By the end of this class, students should be able to

In order to pass this course, students must demonstrate the ability to


1. **DISTINGUISH** between Bloom’s domains of learning.
2. **APPLY** Bloom’s taxonomy to write a course-level learning outcome.
3. **ASSESS** course learning outcomes against degree level expectations.
4. **DESIGN** learning activities appropriate for meeting learning outcomes.
5. **DEVELOP** methods to evaluate student achievement of learning outcomes.
6. **INTEGRATE** learning outcomes into all courses taught.

## HOW DO I CHOOSE SPECIFIC CONTENT/VALUE/ATTITUDE/BEHAVIOUR?

Begin by asking yourself the following questions:

- What is the purpose of my course in relation to students’ program of study?
- What is the relationship of this course to other courses (e.g. is it a prerequisite or an elective?)
- At which level in each learning domain (see Table 1) can I expect students to perform?
- How much and what can I expect students in to learn in this course?
- What are the most important things students must demonstrate to pass this course?
  - Your responses to this question helps to define your **LEARNING OUTCOMES**, thus to help you to refine these responses, consider the following probing questions:
    - Would I pass a student who cannot demonstrate this course-related attribute?
      - If your response to this question is yes, revise the learning outcome.
    - Can I expect this outcome of all registered students, regardless of background knowledge, cultural background, or other variable characteristics?
      - If your response to this question is no, revise the learning outcome.

**TABLE 1**

BLOOM'S HIERARCHY OF LEARNING			
LEVEL OF LEARNING	COGNITIVE DOMAIN	PSYCHOMOTOR DOMAIN	AFFECTIVE DOMAIN
<p>Higher order skills</p>  <p>Lower order skills</p>	<b>Creating:</b> combines elements to develop new models/ideas	<b>Coaching:</b> provides instructions to others to perform task	<b>Characterizing:</b> integrates and behaves in line with values in new contexts
	<b>Evaluating:</b> assesses effectiveness, coherence & rationale and makes strategic judgments	<b>Applying:</b> adapts criteria with no instruction to perform task and evaluates performance in new contexts	<b>Organizing:</b> prioritizes values and resolves internal/personal conflict
	<b>Analyzing:</b> identifies key assumptions & internal relationships; infers main principles; structures information	<b>Developing Standards:</b> identifies criteria for optimal task performance	<b>Valuing:</b> displays attachment, involvement & commitment in class context/assignments
	<b>Applying:</b> relates information to new contexts	<b>Modeling:</b> reproduces task based on instruction or memory	<b>Responding:</b> changes behavior to reflect attitude; actively reacts to or participates in new attitude
	<b>Understanding:</b> knows meaning of & interprets or translates information	<b>Observing:</b> uses sensory cues to guide or define appropriate action	<b>Receiving:</b> becomes open to potential value of a particular attitude
	<b>Remembering:</b> recognizes or recalls facts, details & information		

**TABLE 2**

COGNITIVE DOMAIN		PSYCHOMOTOR DOMAIN		AFFECTIVE DOMAIN	
LEVEL	VERBS	LEVEL	VERBS	LEVEL	VERBS
Creating	assemble, build, design, develop, formulate, generate, hypothesize, invent, modify	Coaching	assess, assist, correct, demonstrate, illustrate, instruct, manage, specify	Characterizing	act, display, embody, influence, plan, practice, propose, represent, solve, validate,
Evaluating	appraise, assess, compare, conclude, critique, defend, justify, review, recommend	Applying	adapt, assess, build, calibrate, coordinate, design, infer, manipulate, modify, produce, solve	Organizing	alter, adjust, arrange, compare, develop, generalize, integrate, modify, order, reconcile, rank
Analyzing	break down, compare, contrast, differentiate, dissect, extrapolate, investigate, separate	Developing standards	compose, distinguish, formulate, integrate, judge, perceive, select, synthesize	Valuing	adapt, balance, challenge, critique, confront, defend, initiate, invite, justify, persuade, seek
Applying	calculate, compute, demonstrate, discover, execute, extrapolate, implement, manipulate, predict, show	Modeling	copy, display, follow, execute, mimic, recreate, reenact, repeat, reproduce	Responding	behave, clarify, comply, cooperate, examine, explain, model, practice, present, recite, report
Understanding	convert, describe, explain, interpret, infer, illustrate, paraphrase, translate	Observing	adhere, choose, copy, detect, follow, identify, observe, relate, repeat	Receiving	acknowledge, accept, ask, attend, describe, observe, read, recognize
Remembering	define, identify, label, list, match, recall, recite, recognize, state				

## **EVALUATING YOUR WRITTEN LEARNING OUTCOMES**

You can use the checklist below to evaluate your learning outcomes for **clarity and specificity**

- ☐ Specific skill/value/content
- ☐ Measurable and demonstrable
- ☐ Attainable by students at current level and matched to purpose of course
- ☐ Relevant for students, course, program, degree
- ☐ Timed Appropriately for class length

## **RESOURCES**

Bloom, B.S. and Krathwol D.R. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals*. David McKay, New York, NY.