

# Learning Objective Worksheet

## Planning Your Online Course

Course Developer: \_\_\_\_\_

Department: \_\_\_\_\_

Course Title: \_\_\_\_\_

Course Number: \_\_\_\_\_

## Why this Guide?

The Center of Online Learning (COOL) at Columbus State University has developed this Learning Objective Worksheet or guide to provide the WHY and HOW of developing aligned learning objectives for your online course. The bulk of the document discusses how learning objectives are created and made to be measurable, and how they are organized into learning domains. The key idea is to explore ALL levels of Bloom's Taxonomy transitioning from the lower level "Remember" in the beginning of your course, toward the highest level "Create" as the semester progresses. Lastly, you may be using this guide as part of your goal to have your online course Quality Matters (QM) certified. If you know QM, you know that **learning objective alignment** is covered in several of the Essential Standards. In order to have your course QM certified, these Essential Standards must be deemed Met. Otherwise, your course can still benefit from learning objectives that align to course outcomes, and program outcomes. Take a moment to look over the following information, details, examples, and the blank worksheet table for use in designing your course objectives. And as always, the Center of Online Learning is here to provide feedback. Please don't hesitate to use us as a resource.

## Why Create Measurable Learning Objectives (LO)?

There are several reasons for using measurable learning objectives in your course. First, they define HOW to do well in the course. For example, students may see that you expect them to "Write a one-page essay given [the topic]." With that in mind, students can know the WHY behind the various articles you've assigned them to read on the topic. Measurable learning objectives also help you determine IF a student has achieved what you want them to learn, providing documented evidence that they HAVE. Lastly, aligning your learning objectives in your course helps you make sense of activities you want students to carry out. You might find that these activities do not align specifically to any materials or assessments. If this is true, you might consider making the activities optional.

## Course Learning Outcomes

The **course level** learning objectives/goals/outcomes (you may see them referred to in different ways) are interconnected with the goals of the university as a whole. Your module level objectives support the course goals and the course goals support the department, college, and university goals for learning. When you write your module level objectives, consider the course outcomes first. You may have multiple module level objectives to support a single course goal. Course outcomes may be written as:

- The student will learn to...
- The student will come to understand...
- The student will know...

The first activity you will engage in is to document your course outcomes. These may have been provided by your department or institution. You may have been asked to write them. In either case, start the process by entering those outcomes in the following table.

**Activity: list course level learning outcomes**

List your course outcomes below. Insert rows if needed.

<b>Code</b>	<b>Course Outcome</b>
CO1	
CO2	
CO3	
CO4	
CO5	
CO6	
CO7	
CO8	
CO9	
CO10	

## Measurable Learning Objective Key Terms

Each module in your course will need to have module-level learning objectives that align to the course outcomes. Measurable objectives illustrate the connection between the materials, activities, and assessments, and show both administrators and students how to complete learning in the course. Think of your module objectives as an agreement between you and your student: *you agree to provide them with what they need to achieve the learning objectives and guide them in achieving them; and they agree to work hard to complete all activities and assignments, accept your guidance, and prepare for their assessments.*

### Characteristics of learning objectives

#### In short, objectives...

- State what the student will be able to do
- Focus on the performance, not the process
- Are measurable and observable
- Are specific and explicit

#### Objectives include...

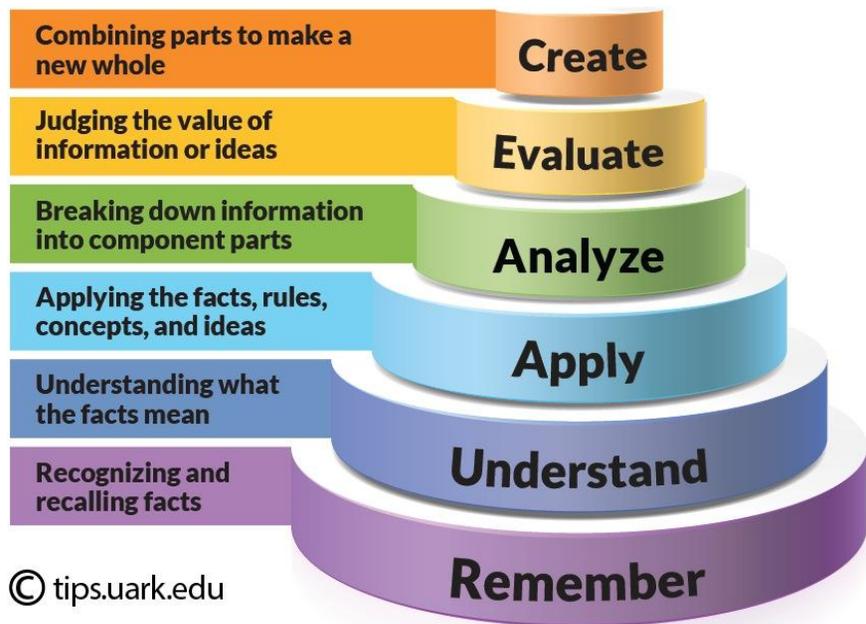
- The actor, “The **student** will be able to...”
- The behavior, “... list/describe/create...”
- The condition, “... given the two arguments...”
- The criterion, “... in 500 words or less...”

#### Examples

- “The student will **select** the most appropriate methods for retrieving the required information.”
- “The student will accurately **assess** the relevance of the search results.”
- “The student will **write** a three-to-five page essay based on the theme, free from spelling and grammatical errors.”
- “The student will **choose** the appropriate intervention given the patient symptoms in a described clinical setting.”

## Bloom's Revised Taxonomy

This section covers the hierarchy and development of learning objective **key terms** that are specific and measurable. The Bloom's Taxonomy method of objective development was designed as six distinct and progressive levels of learning and is a suggested tool for arranging your Module objectives over the duration of a semester or term. At the beginning of the term students are starting to compile knowledge, whereas at the end of the term, their learning has progressed to a level where they can put it all together as experts.



Credit: Jessica Shabatura. Source: <https://tips.uark.edu/using-blooms-taxonomy/>

## Bloom's Taxonomy in Detail

Bloom's Taxonomy can be further organized into dimensions of learning. In looking at the following table, try not to get caught up in the differences between "Knowledge Dimension" and "Cognitive Process Dimension." These indicators are just to show into which dimension the depicted key terms typically fall. The level of Knowledge Dimension goes up across this chart from left to right. Focus more on the Bloom's

Taxonomy levels. The level of Cognitive Process Dimension begins at the lowest level of challenge, **Remember** (example: memorizing terms), and transitions to the highest level of challenge, **Create** (example: build a portfolio).

This lower-to-higher pattern of challenge should also be followed in your course, beginning at Module 1 through to the last module. In later modules students have built upon their knowledge and are ready for greater challenges. For example, asking a student to “list” things in an earlier module is a lower-level challenge compared with asking a student to “create” a presentation compiling their knowledge in a later module.

Begin thinking about what you want students to do. If it helps, think or write out “Students will be able to ....” and fill in the key term. The rows under **Bloom’s Taxonomy** in the table that follows provide examples.

### **Can my students do a thing?**

After examining the list of learning objective keywords in the table provided, you can start asking yourself the question: When my students complete this module, **will they be able to do a thing?** Frame the answer by considering the following questions:

- Can a student *list* the parts of an object?
- Can a student *recall* a story or procedure?
- Can a student *interpret* the meaning of a graph?
- Can a student *compare* two differing proposals?
- Can a student *support* one side of an argument?
- Can a student *judge* the accuracy of a diagnosis?

## Bloom's Taxonomy Levels of Learning

Cognitive Process Dimension	Knowledge Dimension	Knowledge Dimension	Knowledge Dimension	Knowledge Dimension
	<p><b>Factual</b> The basic elements a student must know to be acquainted with a discipline or solve problems in it. Examples:</p> <ul style="list-style-type: none"> <li>● knowledge of terminology.</li> <li>● knowledge of specific details and elements</li> </ul>	<p><b>Conceptual</b> The interrelationships among the basic elements within a larger structure that enable them to function together. Examples:</p> <ul style="list-style-type: none"> <li>● knowledge of classifications and categories.</li> <li>● knowledge of principles and generalizations.</li> <li>● knowledge of theories, models, and structures</li> </ul>	<p><b>Procedural</b> How to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, and methods. Examples:</p> <ul style="list-style-type: none"> <li>● knowledge of subject-specific skills and algorithms</li> <li>● knowledge of subject-specific techniques and methods</li> <li>● knowledge of criteria for determining when to use appropriate procedures</li> </ul>	<p><b>Metacognitive</b> Knowledge of cognition in general as well as awareness and knowledge of one's own cognition. Examples:</p> <ul style="list-style-type: none"> <li>● strategic knowledge</li> <li>● knowledge about cognitive tasks, including appropriate contextual and conditional knowledge</li> <li>● self-knowledge</li> </ul>
<p><b>Remember</b> Retrieve relevant knowledge from long-term memory. <b>Recall facts and basic concepts.</b></p>	<p>List primary and secondary colors. Or...</p> <ul style="list-style-type: none"> <li>● Examine</li> <li>● Locate</li> <li>● Match</li> <li>● Omit</li> <li>● Select</li> </ul>	<p>Recognize symptoms of exhaustion. Or...</p> <ul style="list-style-type: none"> <li>● Label</li> <li>● Quote</li> <li>● Enumerate</li> </ul>	<p>Recall how to perform CPR. Or...</p> <ul style="list-style-type: none"> <li>● Define</li> <li>● Describe</li> <li>● Tabulate</li> </ul>	<p>Identify strategies for retaining information. Or...</p> <ul style="list-style-type: none"> <li>● Reproduce</li> <li>● Record</li> </ul>
<p><b>Understand</b> Construct meaning from instructional messages, including oral, written and graphic communication. <b>Explain ideas or concepts.</b></p>	<p>Summarize features of a new product. Or...</p> <ul style="list-style-type: none"> <li>● Associate</li> <li>● Cite</li> <li>● Differentiate</li> <li>● Distinguish</li> <li>● Estimate</li> <li>● Extend</li> <li>● Generalize</li> </ul>	<p>Classify adhesives by toxicity. Or...</p> <ul style="list-style-type: none"> <li>● Express</li> <li>● Indicate</li> <li>● Infer</li> <li>● Translate</li> <li>● Compare</li> <li>● Group</li> <li>● Order</li> </ul>	<p>Clarify assembly instructions. Or...</p> <ul style="list-style-type: none"> <li>● Discuss</li> <li>● Illustrate</li> <li>● Interpret</li> <li>● Summarize</li> <li>● Convert</li> </ul>	<p>Predict one's response to culture shock. Or...</p> <ul style="list-style-type: none"> <li>● Explain</li> <li>● Paraphrase</li> <li>● Report</li> <li>● Represent</li> <li>● Relate</li> </ul>
<p><b>Apply</b></p>	<p>Respond to frequently asked questions. Or...</p>	<p>Provide advice to novices. Or...</p>	<p>Carry out pH tests of water samples. Or...</p>	<p>Use techniques that match one's strengths. Or...</p>

Carry out or use a procedure in a given situation. <b>Use information in new situations.</b>	<ul style="list-style-type: none"> <li>Choose</li> <li>Collect</li> <li>Compute</li> <li>Determine</li> <li>Establish</li> <li>Manipulate</li> </ul>	<ul style="list-style-type: none"> <li>Articulate</li> <li>Transfer</li> <li>Chart</li> <li>Develop</li> <li>Operate</li> <li>Solve</li> </ul>	<ul style="list-style-type: none"> <li>Prepare</li> <li>Produce</li> <li>Interpret</li> <li>Calculate</li> <li>Experiment</li> <li>Construct</li> </ul>	<ul style="list-style-type: none"> <li>Simulate</li> <li>Administer</li> <li>Dramatize</li> </ul>
<b>Analyze</b> Carry out or use a procedure in a given situation. <b>Draw connections among ideas.</b>	<b>Select</b> the most complete list of activities. Or... <ul style="list-style-type: none"> <li>Appraise</li> <li>Connect</li> <li>Correlate</li> <li>Discriminate</li> <li>Divide</li> <li>Subdivide</li> </ul>	<b>Differentiate</b> high and low culture. Or... <ul style="list-style-type: none"> <li>Categorize</li> <li>Deduce</li> <li>Separate</li> <li>Dissect</li> <li>Question</li> <li>Prioritize</li> </ul>	<b>Integrate</b> compliance with regulations. Or... <ul style="list-style-type: none"> <li>Criticize</li> <li>Devise</li> <li>Outline</li> <li>Conclude</li> <li>Organize</li> </ul>	<b>Deconstruct</b> one's biases. Or... <ul style="list-style-type: none"> <li>Diagram</li> <li>Plan</li> <li>Survey</li> <li>Test</li> </ul>
<b>Evaluate</b> Make judgments based on criteria and standards. <b>Justify a stand or decision.</b>	<b>Select</b> the most complete list of activities. Or... <ul style="list-style-type: none"> <li>Assess</li> <li>Critique</li> <li>Judge</li> <li>Rate</li> <li>Score</li> <li>Weigh</li> </ul>	<b>Determine</b> relevance of results. Or... <ul style="list-style-type: none"> <li>Argue</li> <li>Debate</li> <li>Rank</li> <li>Decide</li> </ul>	<b>Judge</b> efficiency of sampling techniques. Or... <ul style="list-style-type: none"> <li>Convince</li> <li>Persuade</li> <li>Reframe</li> </ul>	<b>Reflect</b> on one's progress. Or... <ul style="list-style-type: none"> <li>Defend</li> <li>Recommend</li> <li>Support</li> </ul>
<b>Create</b> Put elements together to form a coherent whole; reorganize into a new pattern or structure. <b>Produce new or original work.</b>	<b>Generate</b> a log of daily activities. Or... <ul style="list-style-type: none"> <li>Combine</li> <li>Compose</li> <li>Formulate</li> <li>Hypothesize</li> <li>Imagine</li> <li>Invent</li> <li>Originate</li> </ul>	<b>Assemble</b> a team of experts. Or... <ul style="list-style-type: none"> <li>Rearrange</li> <li>Reorganize</li> <li>Revise</li> <li>Structure</li> <li>Intervene</li> <li>Integrate</li> </ul>	<b>Design</b> efficient project workflow. Or... <ul style="list-style-type: none"> <li>Schematize</li> <li>Speculate</li> <li>Substitute</li> <li>Manage</li> <li>Solve</li> </ul>	<b>Compile</b> a learning portfolio. Or... <ul style="list-style-type: none"> <li>Propose</li> <li>Validate</li> <li>Negotiate</li> <li>Collaborate</li> <li>Facilitate</li> </ul>

(Revised Bloom's Taxonomy, n.d.).

## Writing Module Level Objectives

Included in this section is a template for organizing your module materials, practice activities, assessments — all aligning to Learning Objectives. In the following activity be sure to note which course level outcome the module level outcome supports. This is critical to reaching complete course alignment.

### Review: Learning Objective Table

How to use this table:

1. In thinking about the Bloom’s Taxonomy examples, state in each row what you want students to be able to do.
2. Then, fill in what learning materials will support students in that task.
3. Complete the column for which activities are expected to help them practice what students have learned.
4. Finally, fill in the column with the best assessment for making sure students have achieved the learning objective as defined.\*\*
5. Decide which course level learning outcome this module level objective is designed to support. Enter the code in the first column.

**Example of assessment:** If students are to order the events in WWI, a quiz question with an ordering activity would be appropriate. However, if you want students to be able to describe the events leading up to the onset of WWI, a discussion post or essay is the best choice of assessment.

#### \*\*Backward Design

You likely already tacitly know which assessment will best tell you if your student is learning the materials. What do you have them doing? Starting with the assessment and moving toward development of the learning objective is referred to as “Backward Design.” According to Vanderbilt University (Bowen, 2017), one of the benefits of backward design is that “[instructors] have a better idea of what they want the students to get out of learning activities” (par. 6).

**Look at it this way:** If you are thinking about what you want to cover from a textbook or article, list the topics and materials. Think about what activities you would like to students do, and ask yourself the WHY of doing these activities. Thinking along these lines will give you the answer: “I want students to understand/know... “ Finally, ask yourself HOW is it that you confirm they understand/know? What is the evidence?

### Example Table

In this example table, the course is just beginning, and already students are presented with an activity in the Introduction module. The assessment is carried out with the course discussion tool. The instructor wants to ensure students understand how to use the tool because they will be discussing topics throughout the semester. The instructor has provided a rubric so that students know how they will be assessed, and an

example post to follow. Students are then allowed to practice the discussion tool options to get comfortable using it. The learning objective has been written as “Students will demonstrate...” — a clearly stated, explicit, and measurable learning objective.

<b>Course Level Outcome</b>	<b>Learning Objective After working through this Module, the student should be able to:</b>	<b>Supporting Materials What resources will you be using? Where do they come from?</b>	<b>Learning Activities What will students do with the materials? How will they practice what they know?</b>	<b>Assessment How will LO be assessed? With which D2L tool?</b>
(Example) <i>CO1</i>	(Example) <i>Students will demonstrate an ability to use the course discussion tool</i>	(Example) <i>The instructor will model an example introduction and provide parameters the students should include.</i>	(Example) <i>Students will be free to post, delete, and repost in order to practice using the discussion tool. They will follow the rubric provided to be sure their posts are complete.</i>	(Example) <i>Instructor will determine if posts include all parameters and are submitted properly. The discussion tool will be used for this evaluation.</i>

## Resources

Bowen, Ryan S., (2017). Understanding by Design. Vanderbilt University Center for Teaching. Retrieved from <https://cft.vanderbilt.edu/understanding-by-design/>.

Revised Bloom’s Taxonomy, (n.d.). Retrieved from <http://www.celt.iastate.edu/teaching/effective-teaching-practices/revised-blooms-taxonomy/>.

### Activity: Your Turn! Complete your learning objective table(s)

Feel free to print out multiple copies of the table below (or copy and paste to complete digitally). Add rows to the table as needed. This activity should be repeated for each module in your course. Engage COOL representatives as you go along for feedback or suggestions.

**Instructions:** Enter the module number and topic. First, explore which course level objective you want to target first, then enter it in the first column. Then begin to plan your learning objectives. You likely have an assessment already in mind. You can start there (see “\*\*Backward Design”). Are students presenting, writing, comparing, contrasting, listing? You tacitly know what assessment tells both you and your student if they really “got it.” Once the assessment is determined, you can then align them to course materials and practice activities. Choose which materials and activities you intuitively know will help students do well on those assessments.

Module # \_\_\_\_\_ Title/Topic: \_\_\_\_\_

Course Level Outcome	<b>Learning Objective</b> After working through this Module, the student should be able to:	<b>Supporting Materials</b> What resources will you be using? Where do they come from?	<b>Learning Activities</b> What will students do with the materials? How will they practice what they know?	<b>Assessment</b> How will LO be assessed? With which D2L tool?

Module # \_\_\_\_\_ Title/Topic: \_\_\_\_\_

Course Level Outcome	<b>Learning Objective</b> After working through this Module, the student should be able to:	<b>Supporting Materials</b> What resources will you be using? Where do they come from?	<b>Learning Activities</b> What will students do with the materials? How will they practice what they know?	<b>Assessment</b> How will LO be assessed? With which D2L tool?