



Writing Learning Outcomes

Course Learning Outcomes are the primary skills, behaviors, abilities, expertise, and proficiencies the student will “own” at the end of the course. While the student will need a certain level of knowledge or information in order to achieve the outcome, the emphasis in identifying the outcomes is on what the student will be able to do with that knowledge or information at the end of the course that they couldn’t do before.

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Criteria:

Criteria	Additional Information
SMART - Learning outcomes are stated in S pecific, M easurable, A ttainable, and R elevant focused terms, and are T ime bound.	For course outcomes, time bound simply means by the end of the course.
A learning outcome states what students will know or be able to do at the end of the course.	
The operational verb is the center of the learning outcome and related to a specific level of cognitive development.	Examples of Desired Verb Usage
Frame the work around genuine questions and meaningful challenges.	
All identified outcomes should have assessments.	Data from the assessments of the outcomes are used for annual improvement strategies.
As a guide, each course should have between 5 to 10 learning outcomes; about 2 learning outcomes for each course credit.	

How To:

Student = Focus is on students. It is not on the program, course, or faculty member

Learning = An action which involves a cognitive process

Outcome = Measurable and observable

Use the following templates to help you write an appropriate learning outcome:

Students will *(choose an action verb)* *(the knowledge, concept, rule or skill you expect them to acquire)* **by** *(how they will apply their knowledge or skill/how you will assess their learning)*.

As a result of participating in *(course)*, **students will** *(action verb)* + *(defined by explicit and observable terms)*.

Examples:

Good Examples

- Students will summarize the important features of major periods in the history of western music.
- Students will apply important concepts and principles of psychology to draw conclusions about populations from samples.
- Students will describe the operations of financial institutions and the services they provide.
- Students will demonstrate knowledge about the significance of current research in the field by writing a research report.
- Students will prepare and present effective, informative, and persuasive public speeches.
- Students will design an experiment that tests a valid hypothesis.
- Students will construct appropriate and professional criticisms during design critiques.
- Students will interpret basic statistical analyses
- Students will analyze Salman Rushdie's early works using postcolonial theory.
- Students will summarize the main ethical considerations relevant to the field of nanotechnology.
- Students will solve quantitative problems correctly involving chemical formulas and equations

Poor Examples

- Students will complete 200 hours of internship experience.
- Students will improve their writing of a research paper.
- Students will appreciate 20th century American literature.
- Students will have the opportunity to build their research skills by conducting authentic laboratory experiments.
- Students will understand the historical context of evolutionary theory.
- Students will know the major morphophonological rules of English.
- The course will introduce you to major periods in the history of western music.
- You will understand important concepts and principles.
- You will write a term paper on a topic that interests you.

Resources

- McTighe and Wiggins G. (2011). [The Understanding by Design Guide to Creating High Quality Units](#). Alexandria, VA: ASCD.
- <http://www.learningoutcomesassessment.org>. National Institute for Learning Outcomes and Assessment
- <http://www.learningoutcomesassessment.org/TWO%20SLOS.pdf>
- Fink (2003) [Creating Significant Learning Experiences](#). Jossey-Bass. San Francisco.

Desired Verb Usage:

What do you want students to know and do as a result of taking your course?	Examples of verbs which describe what you would like for them to know and do
Verbs describing student acquisition and preparation of tools, materials, and texts of various types (including digital and archival)	access, acquire, collect, accumulate, extract, gather, locate, obtain, retrieve
Verbs indicating what students do to certify information, materials, texts, etc.	cite, document, record, reference, source
Verbs indicating the modes of student characterization of the objects of knowledge or materials of production, performance, or exhibit	categorize, classify, define, describe, determine, frame, identify, prioritize, specify
Verbs describing what students do in processing data and allied information	calculate, determine, estimate, manipulate, measure, solve, test, arrange, assemble, collate, organize, sort
Verbs describing what students do in explaining a position, creation, set of observations, or a text	articulate, clarify, explicate, illustrate, interpret, outline, translate, elaborate, elucidate
Verbs falling under the cognitive activities we group under “analyze”	compare, contrast, differentiate, distinguish, formulate, map, match, equate
Verbs describing what students do when they “inquire”	examine, experiment, explore, hypothesize, investigate, research, test
Verbs describing what students do when they combine ideas, materials, and observations	assimilate, consolidate, merge, connect, integrate, link, synthesize, summarize
Verbs that describe what students do in various forms of “making”	build, compose, construct, craft, create, design, develop, generate, model, shape, simulate
Verbs that describe the various ways in which students utilize the materials of learning	apply, carry out, conduct, demonstrate, employ, implement, perform, produce, use
Verbs that describe various executive functions students perform	operate, administer, control, coordinate, engage, lead, maintain, manage, navigate, optimize, plan
Verbs that describe forms of deliberative activity in which students engage	argue, challenge, debate, defend, justify, resolve, dispute, advocate, persuade
Verbs that indicate how students value objects, experiences, texts, productions, etc.	audit, appraise, assess, evaluate, judge, rank
Verbs that reference the types of communication in which we ask students to engage	report, edit, encode/decode, pantomime, map, display, draw, diagram
Verbs, related to modes of communication, that indicate what students do in a group	collaborate, contribute, negotiate, feed back
Verbs that describe what students do in rethinking or reconstructing	accommodate, adapt, adjust, improve, modify, refine, reflect, review