

MOUNTAIN VIEW COLLEGE
CORE CURRICULUM EVALUATION COMMITTEE

WRITING INSTRUCTIONAL OBJECTIVES
STUDENT LEARNING OUTCOMES
COURSE LEVEL

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WRITING INSTRUCTIONAL OBJECTIVES

STUDENT LEARNING OUTCOMES

COURSE LEVEL

A learning outcome is one sentence that indicates what students should represent, demonstrate or produce as a result of what they learn. It describes an intended *result* of instruction, rather than the *process* of instruction itself. (Mager, p.5)

Course Description, Goals and Objectives

It is important to be able to differentiate the course description from the course objectives. A course description simply tells what the course is about. You might consider the GOALS of the course to be linked to the course description; they are broad educational statements fitting the mission and description of the course. Specific measurable objectives, however, tell what the learner will be able to do upon successful completion of the course. Student learning outcomes are result from meaningful conversations around the following three questions:

As a result of completing your program

- What do you want your students to know by the time they finish your program?
- What do you want students to be able to do with what they know?
- What do you want students to care about?

Why are well-written learning outcomes important?

- Student learning outcomes clarify faculty expectations for what students should know, understand, be able to do, and value by the time they complete the program.
- They help shift discussions about the curriculum away from "coverage of topics" to improvement of student learning.
- Student learning outcomes at the course level can act as a guide for class activities, assignments, and exams.
- Assessment of student learning outcomes can provide information to students on their strengths and weaknesses in relationship to learning outcomes.
- Assessment of student learning outcomes can provide information for the improvement of educational programs and for demonstrating their effectiveness.

Characteristics of well-written learning outcomes:

- The specified action by the students must be observable.
- The specified action by the students must be measurable.
- The specified action must be done by the students.
- Use a variety of Bloom's Taxonomy levels. (Using appropriate action verbs, state what students will be able to do or what they should be able to demonstrate as a

result of completing your course. Do not list course content, pedagogies, or class activities.)

- Use language that is clear and direct. When possible, use language your students can understand.

How are student learning outcomes written?

To describe what students will do, student learning outcomes use active verbs such as *demonstrate*, *apply*, *analyze* and *compare*. Typically, student learning outcomes are written using one of the following methods:

1. Formula:

Time Frame + Student focus + Action Verb + Product/process/outcome = Learning Outcome

2. ABCDs of writing objectives.

Method #1:

Learning Outcome = Time Frame + Student focus + Action Verb + Product/process/outcome

Example:

Learning Outcome:

“At the end of the library session the student should be able to identify a relevant database for their term paper research.”

Formula:

- Time frame: “At the end of the library session...”
- Student focus: “...students should be able to...”
- Action verb (Bloom’s taxonomy): “...identify...”
- Product/process: “...a relevant database for their term paper research.”

Table 1: Examples of Action Verbs

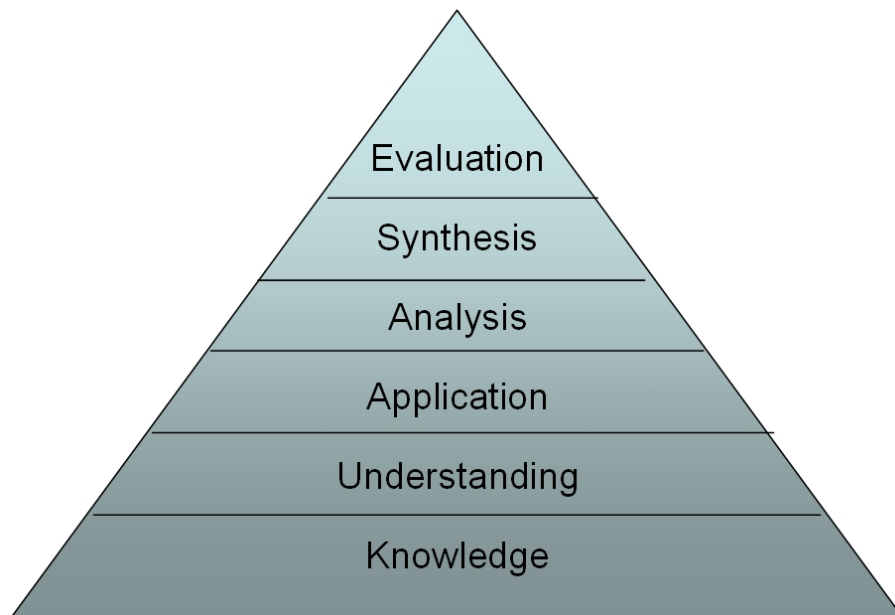
analyze	demonstrate	illustrate	participate	specify
apply	describe	interpret	perform	summarize
classify	design	judge	predict	support
communicate	distinguish	justify	produce	translate
construct	evaluate	modify	recognize	volunteer
create	explain	order	review	write
define	identify	organize	solve	

Method #2: ABCDs of writing objectives.

- **A-Audience:** The who. "The student should be able to..."
- **B-Behavior:** What a student is expected to be able to do or the product or result of the doing. The behavior or product should be observable.
- **C-Condition:** The important conditions under which the performance is to occur.
- **D-Degree:** The criterion of acceptable performance. How well the learner must perform in order for the performance to be considered acceptable.

What types of learning outcomes should be included?

Learning outcomes typically fall into three basic categories: knowledge, skills, and attitudes. Several educators have developed more detailed frameworks that might be useful for identifying learning outcomes. The most widely used framework is Bloom's Taxonomy of Educational Objectives (1956) which describes different levels of cognitive processing. Each level builds on the previous level, which starts at knowledge, followed by comprehension, application, analysis, synthesis and evaluation. The later three categories are sometimes referred to as "higher order thinking skills," or the skills we might expect University studies to be able to demonstrate.

Bloom's Taxonomy

Taxonomy of Educational Objectives. (Bloom, 1956)

This taxonomy of learning behaviors can be thought of as "the goals of the training process." That is, after the training session, the learner should have acquired new skills, knowledge, and/or attitudes. It was published in 1956 and revised in 2001.

Table 2 is an abbreviated version of Bloom's Taxonomy which includes a short definition, a list of active verbs, and a sample student learning outcome for each level of the Taxonomy.

Table 2: Bloom's Taxonomy -- Cognitive Domain

Cognitive Level	Definition	Action Verbs	Example Outcome
1. Knowledge	To know specific facts, terms, concepts, principles or theories	recite, list, define, describe, identify, name, outline, select, state	By the end of the chemistry program, students should be able to list all of the elements on the periodic table.
2. Comprehension	To understand, interpret, compare & contrast, explain	translate, interpret, predict, generalize, defend, distinguish, explain, generalize, give examples, summarize	By the end of the French program, students should be able to translate a paragraph of text from English to French.
3. Application	To apply knowledge to new situations, to solve problems	apply, demonstrate, modify, prepare, produce, show, solve, use	By the end of the program, student should be able to apply basic Web development skills.
4. Analysis	To identify the organizational structure of something; to identify parts, relationships, and organizing principles	analyze, diagnose, investigate, differentiate, distinguish, illustrate, select, separate	By the end of the special education program, students should be able to diagnose learning disabilities.
5. Synthesis	To create something, to integrate ideas into a solution, to propose an action plan, to formulate a new classification scheme	create, categorize, devise, design, explain, organize, plan	By the end of the art program, students should be able to create at least 12 original works in their medium.
6. Evaluation	To judge the quality of something based on its adequacy, value, logic, or use	appraise, compare, contrast, criticize, describe, explain, justify, interpret, support	By the end of the music program, students should be able to judge student performances.

Morrison, G.R., Ross, S.M., & Kemp, J.E., (2001).

How Does One Write a Good Objective?

A good learning outcome communicates your intent well and leaves little room for interpretation. There are words that we often use that are open to many interpretations, and there are words that we can use that leave less to the imagination. So, when writing behavioral objectives, stick to the words that leave less room for interpretation. Consider the following:

<i>Verbs open to many interpretations</i>	<i>Verbs open to fewer interpretations</i>
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to know	to write
to understand	to recite
to really understand	to identify
to appreciate	to sort
to fully appreciate	to solve
to grasp the significance of	to construct
to enjoy	to build
to believe	to compare
to have faith in	to contrast
to learn	to illustrate

The verbs below may prove useful as you write your instructional objectives and are based on Blooms' Taxonomy of cognitive behavior:

<i>Knowledge</i>	<i>Comprehension</i>	<i>Application</i>	<i>Analysis</i>
Arrange order define recognize duplicate label recall list repeat memorize name state relate reproduce	Classify locate describe recognize discuss report explain restate express review identify select indicate translate	Apply operate choose practice demonstrate schedule dramatize sketch employ solve illustrate use interpret write	Analyze differentiate appraise discriminate calculate distinguish categorize examine compare experiment contrast question criticize test
<i>Synthesis</i>		<i>Evaluation</i>	
Arrange formulate assemble manage collect organize compose plan construct prepare create propose design write		Appraise judge argue predict assess rate attach score choose select compare support estimate evaluate	

Student Learning Outcomes examples:

Here are some examples of student learning outcomes:

- Students who complete the lower division sequence in writing should be able to organize complex arguments in writing, using thesis statements, claims and evidence.
- Students completing the biology degree should be able to make appropriate inferences and deductions from biological information.
- Drama majors should be able demonstrate how to use voice, movement, and understanding of dramatic character to affect an audience.
- Mechanical engineering graduates should be able to apply scientific and engineering principles to analyze, design and synthesize mechanical and other engineering systems of importance to society.
- After completing the science and technology requirement, students should be able to discuss the benefits as well as the limitations of scientific inquiry.
- At the end of the research methods course, students should be able to use a statistical package to analyze experimental results and will draw appropriate conclusions from them.
- Students who complete the multi-cultural requirement should be able to develop an appreciation for the perspective of people from backgrounds different from their own.

Checklist for Student Learning Outcomes

- Includes a time frame?
 - Focuses of student?
 - Uses action verbs?
 - Names a product or process?
 - Measurable/observable?
 - Prompts a measure/method?
 - Will be useful for you to assess?
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MUSI -1306 MUSIC APPRECIATION COURSE CONTENT AND STUDENT LEARNING OUTCOMES

<i>Course Content and Scope:</i>	<i>Objectives: Student Learning Outcomes</i>
<i>This is an outline of the topics included in the lecture portion of the course (outline reflects course description, all topics covered in class)</i>	<i>Upon successful completion of this course, the student should be able to... (Use action verbs from Bloom's Taxonomy requiring cognitive outcomes.)</i>
<p>Elements of Music: Properties of Musical Sound: Pitch, Dynamics, Duration, Tone Color. Performing Media (Voice types, instrument families, and individual instruments.) [course objectives 1, 2, 3, & 4]</p> <p>Rhythm-Beat, Meter, Accent, Syncopation; Music Notation [objectives 1, 3, & 4]</p> <p>Melody-pitch range, phrases; Harmony-Consonance/Dissonance, Key [objectives 1. 3. & 4]</p> <p>Texture, Form, Intro to Style Periods [objectives 1, 3, 4, 5, & 6]</p> <p>Music of the Middle Ages – Sacred: Gregorian Chant, Mass, Organum, Secular: troubadours and trouvères [objectives 1 – 8]</p> <p>Renaissance- Polyphony, Motets, Madrigals, Desprez, Weelkes, and Palestrina [objectives 1- 8]</p>	<p>(1) distinguish among the characteristics of various historical musical style periods.</p> <p>(2) identify the sounds of different instruments and instrumental families.</p> <p>(3) describe the elements of music: pitch (melody, harmony, etc.) dynamics, rhythm, and timbre</p> <p>(4) relate how the use of different musical elements contributes to the aesthetic appeal of a work</p> <p>(5) examine how the use of musical elements creates form in a musical work.</p> <p>(6) analyze the musical form of specific pieces and describe how the form contributes to the appeal of a work.</p> <p>(7) name and describe the contributions of great composers of different style periods.</p> <p>(8) compare and contrast works based on the use of elements, form, and cultural (style period) influences.</p>

WRITING INSTRUCTIONAL OBJECTIVES STUDENT LEARNING OUTCOMES

Directions: The objectives listed below have something wrong with them. Examine each objective and revise it so it follows proper formatting of method #1 (Formula).

1. They will understand how to use social science databases.

Better:

2. Students will be able to search the catalog.

Better:

3. Students will definitely understand the nine reasons for conducting a needs assessment.

Better:

4. You guys might develop an appreciation of cultural diversity in the workplace.

Better:

5. Learners will appreciate the contributions of great composers in music history.

Better:

The objectives listed below have something wrong with them. Examine each objective and revise it so it follows proper ABCD objective form (method #2).

1. The student will be shown the proper way to sew a button hole.
 A _____
 B _____
 C _____
 D _____

2. The student will know the four families of orchestral instruments.
 A _____
 B _____
 C _____
 D _____

3. Given a swimming pool, the student will demonstrate the four basic swim strokes.
 A _____
 B _____
 C _____
 D _____

4. The student will select pictures of objects that rhyme.
 A _____
 B _____
 C _____
 D _____

5. Given matching items listing dietary diseases and their causes, the student will identify the correct cause of each disease listed.
 A _____
 B _____
 C _____
 D _____

References

- Bloom B. S. (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain*. New York: David McKay Co Inc.
- Mager, R. F. (1984). *Preparing Instructional Objectives*, 2nd edition. Lake Publishing Company: Belmont, California.
- Morrison, G.R., Ross, S.M., & Kemp, J.E., (2001). *Designing Effective Instruction*, 3rd Edition. New York: John Wiley.