

**EL CAMINO COLLEGE
COURSE SLO STATEMENT DRAFTING FALL 2013**

Reviewed by SLO Facilitator: _____ Date: _____

Reviewed by ALC Sub-committee Chair: _____ Date: _____

COURSE NAME AND NUMBER:

SLO STATEMENT Number:

(Enter Statement Here)

SLO STATEMENT Number:

(Enter Statement Here)

SLO STATEMENT Number:

(Enter Statement Here)

<u>Aspects of a Strong SLO Statement:</u>	YES	NO
1. Do all the outcomes address Student Learning?		
2. Are the SLOs written as outcomes rather than an objective (does the language indicate an important overarching concept vs. small lessons)?		
3. Do the SLOs address one specific outcome or is it too broad in scope?		
4. Do the SLOs use active verbs to describe the outcome?		
5. Are the expected outcomes tangible and measurable?		
6. Do the statements link to an ILO? Do the statements link to a PLO?		
7. Will the students understand the SLO?		
<i>Recommendations:</i>		

Approved by SLO/Faciliator: _____ Date: _____

Aspects of a Strong SLO Statement – Guide

1. Do all the outcomes address Student Learning?

Generally speaking, good learning outcomes are:

- learner centered
- key to the course's goals
- meaningful for students and faculty
- representative of a range of thinking skills

Good learning outcomes focus on what students can do instead of the effort we put into teaching them.

Example – Not a Learner-Centered Outcome:

This course will provide learners with an overview of historical perspectives of our world and help them develop an appreciation for the contribution of these various perspectives.

Example – Learner-Centered Outcome:

Students will be able to compare and contrast historical perspectives of our world and describe the contributions of these historical perspectives.

2. Are the SLOs written as *outcomes* rather than *objectives*? Does the language indicate an important overarching concept vs. small lessons?

Student Learning Outcomes do not represent a completely new direction in teaching and learning but rather a continuation of a trend that began with “learning objectives.” Student learning outcomes are like learning objectives in their focus on the measurable results of student learning. They differ in scope, however. The main difference between student learning outcomes and learning objectives is that learning objectives are discrete, individual tasks or skills that must be accomplished before the larger, broader goals of the course can be achieved. The overarching goals of the course, however, are the student learning outcomes.

Objectives are intended results or consequences of instruction, curricula, programs, or activities. Objectives are often written more in terms of teaching intentions and typically indicate the subject content that the teacher(s) intends to cover.

Outcomes are achieved results or consequences of what was learned; i.e., evidence that learning took place. SLOs are statements that describe significant and essential learning that learners have achieved, and can reliably demonstrate at the end of a course or program. SLOs identify what the learner will know and be able to do by the end of a course or program – the essential and enduring knowledge, abilities (skills) and attitudes (values,

dispositions) that constitute the integrated learning needed by a student completing a course or program.

Objective	How this objective might be reformulated as a Learning Outcome
(Geology) To explain the different magma geochemistries derived from partial melting of the mantle in different tectonic regimes.	Students should be able to demonstrate how magma geochemistry relates to partial melting of the mantle by contrasting the outcomes of this process in different tectonic regimes through the critical analysis of specific case studies.
(Biochemistry) To demonstrate the application of molecular graphics to drug design.	Students should be able to apply the principles underpinning the use of molecular graphics in the design of drugs to illustrate general and specific cases through a computer-based presentation.
(Engineering) To team-design concrete components of structure and foundation and integrate them into overall design structures.	Functioning as a member of a team, the student will design and present a concrete structure which complies with engineering standards.

3. Do the SLOs address one specific outcome or is it too broad in scope?

In general, faculty should write approximately three to six SLOs for a course rather than just one. Often when faculty members write just one SLO for a course, they include all that they want the student to know or be able to do for the course in the single SLO. For example:

- At the conclusion of Art 120, students will create and present 2-D design projects in traditional and digital media that incorporate historical and contemporary approaches to color and design theories, practices, and materials.

To be clear, the faculty member has done a very good job of identifying what she wants the students to know or be able to do by the conclusion of the course; that is, she wants students to 1) know the historical and contemporary approaches to color; 2) know the historical and contemporary approaches to design theory; 3) demonstrate the practices of design, and 4) incorporate the materials of design.

In this case, the SLOs for Art 120 might be written as such (using Bloom's Taxonomy):

- Students compare and contrast historical and contemporary approaches to color;
- Students compare and contrast historical and contemporary approaches to design theory;
- Students employ correct practices to create two-dimensional projects; and
- Students utilize appropriate material to create two-dimensional projects.

The impulse to include a majority of the knowledge and skills in a single SLO may arise from the concern that if one writes several SLOs for a course, one will have to assess all those SLOs too frequently. This, however, is not the case. Regardless of the number of SLOs for a course, faculty members will assess only one SLO for the course each year. In this case, by breaking the SLO into four different SLOs, the faculty member actually makes the assessment more manageable and more meaningful.

Indeed, the instructor can presumably use the same assessment method - the 2-D project created by the students - for each of the SLOs. She can use the project one year to assess students' understanding of color, the next year to assess their understanding of design theory; the next, to assess their understanding and ability to execute practices; and the next, to assess their understanding and ability to incorporate appropriate materials. However, the various elements should be separated into four different SLOs so that each element can be assessed individually. By doing so, the instructor can better know how well students understand color, or design theory, or practices, or materials. Also, the SLO begins by identifying the means of assessment, a 2-D design project; for the reasons mentioned above, it is best not to include an assessment method in the SLO.

4. Do the SLOs use active verbs to describe the outcome?

When writing learning outcomes, focus on student behavior and use simple, specific action verbs to describe what students are expected to demonstrate upon completion of a course or program.

The wording should be something as follows:

Students will be able to <action verbs to describe knowledge, skills, or attitude> . . .

Action Verbs

Concrete verbs such as “define,” “apply,” or “analyze” are more helpful for assessment than verbs such as “be exposed to,” “understand,” “know,” “be familiar with.”

An Action Verb that results in overt behaviors that can be observed and measured. Sample action verbs are:

- Analyze, Apply, Arrange, Assemble, Assess, Calculate, Categorize, Choose, Classify, Compare, Compile, Compute, Create, Criticize, Critique, Defend, Define, Demonstrate, Describe, Design, Develop, Differentiate, Distinguish, Estimate, Examine, Explain, Formulate, Identify, Illustrate, Indicate, Interpret, Label, List, Locate, Manage, Order, Operate, Organize, Plan, Predict, Prepare, Propose, Rate, Recognize, Repeat, Report, Reproduce, Review, Revise, Schedule, Select, Solve, State, Translate, Use, Utilize, Write

Avoid verbs that are unclear and call for covert, internal behavior which cannot be observed or measured.

- Appreciate, Know, Learn, Understand, Become aware of, Become familiar with....

5. Are the expected outcomes tangible and measurable?

Good outcomes are measurable in some way; they communicate what student learning will be evaluated in the course. SLOs must be stated in terms that are clearly measurable quantitatively or qualitatively. As previously stated, a focus on student behavior and the use of action verbs in SLO statements can maintain a focus on measurability. Make sure that the SLO is something that is readily observable and assessable – in other words, build in assessment from the beginning. Don't create an SLO that you can't envision a way to observe or evaluate or that requires data that you won't be able to access. In addition, programs should consider whether data collection for a particular SLO is reasonable and feasible given program resources.

Methods of assessment describe the process used to gather data to measure each stated SLO. When selecting the appropriate assessment method, the focus should be on direct assessment. At least one direct method of assessment must be used for each SLO. (Indirect assessment, such as surveys or other self-reflections, are able to tell us what students believed they learned. These can be usefully compared to direct assessment results but are not sufficient.)

With direct measures of outcomes, students show us (provide evidence) what they learned. Some common direct measures are: Scores on standardized tests, writing samples, locally designed quizzes, tests, and inventories, portfolio artifacts, capstone projects, case studies, group projects and presentations, oral examination, and performance-based projects or experiences.

Examples

Difficult To Measure Outcome

By the end of this course, students will have a deeper appreciation of literature and literary movements in general.

Measurable Outcome Statements

By the end of this course, students will be able to...

- ...identify and describe the major literary movements of the 20th century
- ...perform close readings of literary texts
- ...evaluate a literary work based on selected and articulated standards

Difficult To Measure Outcome

By the end of this course, students will have added to their understanding of the complete research process.

Measurable Outcome Statements

By the end of this course, students will be able to...

- ...evaluate critically the quality of research by others
- ...formulate research questions designed to test, refine, and build theories
- ...identify and demonstrate facility in research designs and data collection strategies that are most appropriate to a particular research project
- formulate a complete and logical plan for data analysis that will adequately answer the research questions and probe alternative explanations
- interpret research findings and draw appropriate conclusions

Often courses will have two levels of outcomes; some broader based outcomes which reflect higher order thinking skills and broad topics, and some more narrow, lower level thinking skills outcomes which are essential to reaching the broader outcomes.

6. Do the statements link to an ILO? Do the statements link to a PLO?

Although every SLO does not have to reflect every PLO or ILO, SLOs should contribute in some combination to those outcomes. Mapping of SLOs to program and institutional learning outcomes helps assure there are integrated and layered opportunities for students to develop the desired outcomes.

Guiding Questions for thinking about SLOs, PLOs, and ILOs

- What do students need to know in order to be well prepared to leave our institution?
- How are we teaching them that information?
- Do we provide them opportunities prior to their leaving for them to demonstrate that they have learned what we think they should?
- How will we know that they have learned what we think they should?

7. Will the students understand the SLO?

A good learning outcome can be made meaningful and clear to students. If you cannot explain why a certain outcome is important, it probably isn't very meaningful.