

STUDENT LEARNING OUTCOMES
HANDBOOK
FOR
DEPARTMENT, DEGREE, CERTIFICATE &
PROGRAM LEVEL

DEFINITION OF PROGRAM-LEVEL SLO: An assessable statement of what students will be able to think, know, do, or feel as a result of completing coursework within a discipline/department, a degree, certificate, or program, such as Scholars or Adelante

Program Level Student Learning Outcomes¹

The term “program” refers to core courses required for degrees, certificates, and programs as well as academic departments. Many professional societies and academic disciplines have standards or competencies that can be used as the basis for program level SLOs. (Some examples are referenced in the endnotes and summarized in the Appendix.) Often, however, these competencies are in the form of discrete skills rather than more global outcomes that would lend themselves to summaries of student learning by those who have completed those programs. An example of aggregating detailed standards into more comprehensive SLO statements is this sample taken from the American Psychological Association.

Example of Aggregation of Specific Program Competencies into a Program Student Learning Outcome

Program Student Learning Outcome: **Use critical thinking effectively.**

Specific Competencies:

- a. Evaluate the quality of information, including differentiating empirical evidence from speculation and the probable from the improbable.
- b. Identify and evaluate the source, context, and credibility of information.
- c. Recognize and defend against common fallacies in thinking.
- d. Avoid being swayed by appeals to emotion or authority.
- e. Evaluate popular media reports of psychological research.
- f. Demonstrate an attitude of critical thinking that includes persistence, open-mindedness, tolerance for ambiguity and intellectual engagement.
- g. Make linkages or connections between diverse facts, theories, and observations.

From *Undergraduate Psychology Major Learning Goals And Outcomes: A Report*, American Psychological Association, March 2002^{xii}

Direct and Indirect Assessment of Student Learning Outcomes

One consideration of assessment is whether it is a direct or indirect measure of student learning.

Direct assessment includes using criteria that assesses or measures student learning directly such as writing an essay, giving a speech, solving problems, using a capstone experience or evaluating a portfolio of student-created products. Indirect assessment examines student performance or behavior using criteria which, if accomplished, assume learning has taken place. Examples include surveys of students and employers, exit interviews of graduates, retention and transfer studies, and job placement data.

Indirect measures are often thought of as outputs: course completions, degrees, certificates, and transfers for example. These are the institutional measures of accountability measured by the

¹ The following material has been taken from Bill Scroggins’ *Student Learning Outcomes—A Focus on Results* (August 2004).

California Community College’s Partnership for Excellence initiative. These measures are often key indicators of success for a program, as exemplified below.

Example of the Use of Direct and Indirect Measures of Student Learning

From Oklahoma State University: <http://www.okstate.edu/assess>

Student Outcomes for Geology. Upon degree completion, students will

- | | |
|---|----------|
| <ul style="list-style-type: none"> • Demonstrate understanding of the basic concepts in eight subject areas: physical geology, historical geology, mineralogy, petrology, sedimentology/stratigraphy, geomorphology, paleontology, and structural geology; | Direct |
| <ul style="list-style-type: none"> • Demonstrate technical skills in the collection and analysis of geologic data, critical-thinking skills, plus written and verbal communication skills; | Direct |
| <ul style="list-style-type: none"> • Apply geologic knowledge and skills to a range of problems faced by business, industry, government; | Direct |
| <ul style="list-style-type: none"> • Gain employment in the geology profession or advance to graduate studies in geology or an allied field. | Indirect |

Identifying Program Competencies—External and Internal Sources

One of the new activities that the accreditation standards require is the construction of competencies for each of our departments, degrees, certificates, and programs. One way to approach this task is to begin with the competencies or standards that are used by state or national professional organizations or licensing/credentialing bodies. These groups span a wide range of disciplines both academic and vocational. Some examples:

- The American Welding Society publishes welding codes and standards on which an extensive AWS curriculum is based. Many community colleges give students AWS certification tests based on these competencies.
- The California Board of Registered Nursing uses standards of competent performance and tests nursing applicants for licensure in many nursing fields.
- The American Psychological Association recently published *Undergraduate Psychology Learning Goals and Outcomes* that lists both program student learning outcomes and detailed competencies for both the psych major and liberal studies students.
- The California State Board of Barbering and Cosmetology tests graduates for licensure based on curriculum standards enacted in Title 16 of the California Code of Regulations.

Links to these and other competencies and standards are found in the Appendix. While an individual program may not teach to all the outcomes that these groups specify, the lists are an excellent starting point.

Strategies for Direct Assessment of Program SLOs: Mosaic and Capstone Approaches

The Mosaic Approach. Assessment of program-level student learning outcomes can be approached by assessing either detailed competencies or more global program learning goals. (Look again at the example in the table at the top of page 10 for the distinction between a program SLO statement and its detailed competencies.) Assessing detailed competencies views the acquiring of knowledge, skills and attitudes as taking place rather like assembling a complex mosaic from individual colored tiles. It is a more analytical model and provides more targeted information about student learning. However, the extent of the effort to find authentic assessments for a large number of “mosaic” competencies, get agreement among program faculty on those assessments, construct rubrics, norm on samples of student work, and then collect and analyze the data may stretch program resources to the breaking point. Furthermore, the acquisition of small, discrete packets of knowledge may not lead the student to acquire a more integrated understanding that provides needed applicability to the next step in that student’s career, be it transfer or directly entering the job market. Consequently, more holistic assessments are often preferred, such as capstone courses or internships.

The Program Audit. Even if an integrated assessment is used at the end of the program, it is useful to identify where in the curriculum each SLO (or even individual competency) is acquired. Furthermore, learning most often occurs in cycles: the student will be exposed to a topic, then later gain competency in that area, and finally master that skill. Doing a program audit of exactly where SLOs and/or competencies are introduced, reinforced, and mastered in the program course offerings is a useful exercise. A template for such a program audit is shown below. Several colleges use such a model to connect individual course learning outcomes statements with the more global program level learning outcomes statements.

Curriculum Audit Grid: Identifying Specific Competencies in the Program “Mosaic”

Outcomes	Course									
	201	202	205	207	251	260	313	314	320	425
1. Recognize and articulate approaches to psychology	I							E		R
2. Independently design valid experiments.			I	E					R	
3. Articulate a philosophy of psych/theological integration.	I	I		R	R	R	R	R	R	E

Modeled after Hatfield (1999). I = Introduced E = Emphasized R = Reinforced

Example from “A Program Guide for Outcomes Assessment” by Geneva College, April 2000: <http://www.geneva.edu/academics/assessment/oaguide.pdf>

The Capstone Approach. The above examples focus on the connection between global program outcomes and the individual competencies students acquire in courses. These individual competencies may be measured through assessment instruments embedded in those courses, be they test questions, performance evaluations, or any other tool for which a normed rubric has been generated. Quite often, program outcomes are determined by a more holistic measure such as a portfolio or other capstone assignment, a survey, or indirect measures such as success in transfer or employment. While these program assessment techniques are considerably simpler to construct and carry out, they may not provide the diagnostic feedback which would enable more targeted improvements in teaching and learning.

Santa Monica College

Program-level Learning Outcomes

Date:

Discipline, Department, Certificate, or Degree:

Student Learning Outcomes: What can students do, think, or know as a result of their studies within the program? Please identify at least two.

1.

As assessed by:

2.

As assessed by:

What plan will be used to assess these outcomes? Identify the following components: frequency (how often per year), rotation of courses and/or faculty, percentage of sections to be assessed, and measurement tool(s) and standards.