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INTRODUCTION

Purpose of Student Learning Outcomes (SLOs)

Student learning outcomes are an important part of the teaching and learning process. For students, they provide clear and concise statements of the expected knowledge and/or attitudes they are supposed to demonstrate at the end of the course, program or degree. SLOs inform the student of the expected outcome and the criteria upon which they are going to be assessed. Therefore, SLO's help to make learning visible to the student. For the instructors, SLOs give us the opportunity to grow as professionals as we reflect on how our activities in the classroom support the outcomes of the course. Because assessment is a key component of the SLO process and provides us with valuable feedback to inform and guide future teaching and learning, the process of developing SLOs is dynamic and not static; as a result, an SLO may undergo many revisions as we continuously evaluate the students' learning.

Key Features of SLOs

1. SLO statements *describe the knowledge, skills, abilities and attitudes students learn as a result of taking a class AND what students can DO with what they have learned.*
2. SLOs focus on the *Big Picture* to describe the broadest 'over-arching' goals for the class.
3. SLOs act as a guide for learning experiences, assignments, and assessment activities.

* Course TMOs (objectives—aka SPOs) describe the content and specifics of the course. SLOs do not replace SPOs. SLOs expand on SPOs by giving us tools to state student learning goals, measure student learning, and use feedback to improve student learning as an ongoing cyclical process.

Adapted from Cabrillo College's

"Student Learning Outcomes and Instructional Planning: A Work Book"

<www.cabrillo.edu/services/pro/assess/assessweb/docs/SLO_InstructionalPlanningAssessmentProcess.pdf>

GLOSSARY OF KEY TERMS

Abilities - the integration of knowledge, skills, and attitudes in complex ways that require multiple elements of learning. (Fulks)

Assessment: an on-going process involving the systematic collection of information about student learning and the use of that information to understand and improve the intended student learning outcomes. Types of assessment are included in the Guidelines.

Attitudinal outcomes - changes in beliefs or development of certain values. (Fulks)

Competencies - the specific level of performance that students are expected to master. (Fulks)

Evidence - data upon which a judgment or conclusion may be based. If we want to know a student has learned from a particular activity or assignment, we collect the data to answer this question. Evidence tells all stakeholders that an institution has engaged in a reflective process and knows something about itself—it knows what it achieves at the course, program and institutional level. (*Guide to Evaluating Institutions*. 2006 <http://www.accjc.org/accjcpublicationsinfo.htm>)

Knowledge - particular areas of disciplinary or professional content that students can recall, relate, and appropriately deploy. (Fulks)

Learning - particular levels of knowledge, skills, and abilities that a student has attained at the end of engagement in a particular set of collegiate experiences. (Fulks)

Outcomes - what students can do as a result of attendance at a higher education institution.

Rubric: “a scoring tool that lists the criteria for a piece of work, or ‘what counts’ (for example, purpose, organization, details, voice, and mechanics are often what count in a piece of writing); it also articulates gradations of quality.

[or performance] for each criterion...”

(Andrade, Heidi G. “Understanding Rubrics” www.middleweb.com/rubricsHG.html).

Skills - the learned capacity to do something.

SLOs (Student Learning Outcomes) refer to overarching specific observable characteristics developed by local faculty that allow them to determine or demonstrate evidence that learning has occurred as a result of a specific course, program, activity or process. Student Learning Outcomes are developed at the course, program and institutional levels. (*Working with the 2002 Accreditation Standards: the Faculty’s Role*, ASCCC, 8)

SPOs (Student Performance Objectives), formerly known as TMOs (Terminal Measurable Objectives), are the particular set of objectives that move the student through the content/competencies. SPOs are not the same as SLOs. SLOs are broader learning outcomes that the student takes with them when they leave the course, program or institution.

(source: Fulks, Janet. *Assessing Student Learning in Community Colleges* (2004), Bakersfield College http://online.bc.cc.ca.us/courseassessment/Section_3_SLOs/Section3_3Terms_defined.htm)

RELATIONSHIP BETWEEN COURSE, PROGRAM AND INSTITUTIONAL SLOs

As we develop or revise the curriculum, we should include activities and experiences that will help students acquire the knowledge, skills and understanding that each of our learning outcomes requires. Conversely, we should scrutinize each of the activities and experiences that we create in our courses and programs and ask ourselves, "How will this help students achieve the intended learning outcomes of the institution, program or course?"

--- *Learner Centered Assessment on College Campuses*, Huba and Freed 2000

Flowchart of Course, Program, and Institutional SLOs

INSTITUTIONAL STUDENT LEARNING OUTCOMES

The faculty, staff and students of PCC agree on a set of broad SLOs that describe the outcomes students will have achieved when they complete their educational goals at PCC. These SLOs will be identified in the Educational Master Plan approved by the Board of Trustees.



PROGRAM STUDENT LEARNING OUTCOMES

Faculty within a program agree on a set of SLOs students must achieve upon completion of a sequence or cluster of courses leading to a certificate, degree or specific body of knowledge. These SLOs will be identified in the program review document. The focus on these SLOs contributes to students achieving the overarching Institutional Outcomes. They are broader than course SLOs.



COURSE STUDENT LEARNING OUTCOMES

Full-time faculty teaching all sections of the same course agree to a set of SLOs necessary for students to complete the course. Faculty may add additional SLOs to meet the specifics of their content material. The SLOs are identified in the course syllabus. These SLOs contribute to students achieving the program SLOs and eventually the Institutional SLOs.

Institutional Student Learning Outcomes

Approved by Educational Policies Committee/Academic Senate/ SLO Steering Committee/ Board of Trustees

COMMUNICATION

Use language and non-verbal modes of expression appropriate to the audience and purpose.

COGNITION

Use critical thinking skills to analyze, synthesize and evaluate ideas and information.

INFORMATION COMPETENCY

Utilize research skills necessary to achieve educational, professional, and personal objectives.

SOCIAL RESPONSIBILITY

Demonstrate sensitivity to and respect for others and participate actively in group decision making.

PERSONAL DEVELOPMENT

Demonstrate self-management, maturity, and growth through practices that promote physical, mental, & emotional well-being.

Some examples of course level SLOs that tie into the Institutional SLOs are:

- **Communication:** Write in a clear, coherent, and organized manner, at the appropriate academic level, to explain ideas, to express feelings, and to support conclusions, claims, or theses.
- **Communication:** Decode and interpret visual messages, construct meaning from visual images, and produce meaningful visual communication.
- **Cognition:** Identify and analyze real or potential problems and develop, test, and evaluate possible solutions, using the scientific method where appropriate.
- **Social Responsibility:** Demonstrate an understanding of and respect for the feelings, opinions, and values of other people and cultures.
- **Information Competency:** Use print materials, personal communications, observations, and electronic media to locate, retrieve, and evaluate information. Understand the ethical, social and legal issues surrounding the use of information.
- **Personal Development:** Demonstrate an understanding of ethical issues and values required to make sound judgments and decisions.

Program SLOs

Program SLOs are written by core faculty within a program or division to reflect what the student will be able to do when s/he finishes the program.

SLOs	Evidence	Institutional SLOs Supported
#1 Dental Assisting students will demonstrate technical skills and abilities, safety and infection control procedures as outlined by the California Dental Practice Act.	Graduate surveys, Employer surveys, State written and practical examination results, National Board examination results, student portfolio	Cognition, Information Competency
#2 Dental Assisting students will exhibit professional growth, behavior, knowledge and development, foster empathy and concern and work towards a commitment of excellence at all times.	Student portfolio, graduate surveys, employer surveys, in-service training evaluation, student journals	Social Responsibility, Personal Development
#3 Dental Assisting students will exhibit communication and conflict resolution skills and strategies that are effective with individuals and groups who are diverse in age, gender, and/or culture.	Graduate surveys, employer surveys, in-service training evaluation, student journals	Communication, Social Responsibility, Personal Development

Sample Program-Level Student Learning Outcomes – PCC Dental Assisting Program

WRITING COURSE SLO STATEMENTS

Learning outcomes at the institutional level are likely to be more broadly stated than those at the program level and those at the program level are likely to be more broadly stated than those at the course level. However, achieving the more specific learning outcomes that we develop for a course or even for a specific class period should help students make progress toward achieving program and/or institutional outcomes. Although not every course SLO may relate to an Institutional SLO or Program SLO, it is important to identify and assess those links when possible. When planning classroom activities to assess learning outcomes, consider ways to incorporate Institutional SLOs and/or Program SLOs in those activities.

Tips for Writing SLOs

1. Keep in mind three types of outcomes:

Cognitive - knowledge related to a discipline

Example: Students will be able to identify major muscles groups.

Skills and abilities - physical and intellectual skills related to a discipline

Example: Students will be able to solve calculation problems involving integers without a calculator.

Affective - attitudes, behaviors and values related to a discipline

Example: Students will apply effective language learning strategies.

2. When writing SLOs think *S.M.A.R.T**

S = Student Focused Ask what students can *do, apply or demonstrate*.

NOT *What did we teach?*

M = Measurable (or observable) Do not be too vague.

A = Action-oriented Use *action verbs* and Bloom's taxonomy.

R = Reasonable Ensure SLOs are appropriate for the course level; written in language students can understand; aligned with other courses in the sequence or program (if applicable).

T = Time-specific Make sure SLOs can be achieved during the course

To ensure the SLOs are *measurable or observable*, it is a good idea to develop the method of assessment along with the SLO.

* adapted from www.uncp.edu/tlc/assessment/writing_statemenst.doc

Assessment Ideas for Outcomes Based on Bloom's Taxonomy

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important in learning. Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order which is classified as evaluation. Verb examples that represent intellectual activity on each level are listed here.

1. **Knowledge:** arrange, define, duplicate, label, list, memorize, name, order, recognize, relate, recall, repeat, reproduce, state.
2. **Comprehension:** classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate.
3. **Application:** apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use, write.
4. **Analysis:** analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.
5. **Synthesis:** arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, write.
6. **Evaluation:** appraise, argue, assess, attach, choose, compare, defend, estimate, judge, predict, rate, core, select, support, value, evaluate.

From Bloom's Taxonomy — <http://www.officeport.com/edu/blooms.htm>

SLO Worksheet

A useful way to develop SLOs for a class is to start with the Course Description found in the college's catalog. On the following page is a worksheet that can be used to develop course SLOs. Drafts of course SLOs should be circulated to colleagues within and outside the division/discipline to get feedback and to check for clarity. The Division's SLO Division Council Representative and the SLO Resource Center Coordinator (7328) should also be consulted.

Developing Student Learning Outcomes and Assessment Rubrics

Created by Merrill Deming for PCC 2006

Student Learning Outcomes Worksheet

First—Cut and Paste the Catalog Description for the Course Here:

STEP 1: Consider the following: How many distinct parts of the description are there? What are they? What should students who take this course *know*? The word “know” is OK here although it should be replaced later with a more appropriate verb.

- 1.
- 2.
- 3.

STEP 2: How will you know if a student completing this course “knows” each of the parts you listed above? (Consider this yourself and talk with other faculty teaching this course.)

STEP 3: Take each part identified above and work on the wording so that an outsider can understand what the student will do - that is, what the outsider will actually see the student perform or produce. **These are your SLOs.**

- 1.
- 2.
- 3.

(Here’s the place for appropriate verbs to replace *know*. Below is a link for a good list of active verbs: <http://www.teachers.ash.org.au/researchskills/dalton.htm>).

General Strategies for Drafting SLO Statements (PCC examples)

Remember that every course does not need separate SLOs for each Institutional or Program Outcome. *Most courses should have 3-5 SLOs. Some courses will inherently be more focused on certain Institutional Outcomes, e.g. English will obviously have a heavy “Communication” focus whereas Counseling classes will have a heavy “Personal Development” focus. Also, one SLO could inherently cover three different Institutional SLOs.*

1. Write descriptions to include action verbs that can be assessed.

1st Draft: Students will *respect* the diversity of opinions on historical debates. *

You can't assess *respect*.

2nd Draft: Students will *demonstrate respect* for the diversity of opinions on historical debates.

Add *demonstrate* to show a performance that can be assessed.

2. Check for repetition, and combine separate SLO statements where possible.

1st Draft:

Communication: Students will demonstrate original written and/or oral analysis exploring their ability to *identify historical eras, events* and explore variables of historical phenomenon, and their causes and effects.

Cognition: Students will

(1) *identify historical eras and important events*, and the causes and impact of significant changes.

(2) *evaluate variables of historical phenomenon* including economic, social, political and geographic factors.

Social Responsibility: Students will *evaluate historical phenomenon* in an international and global context.

2nd Draft: Students will identify historical eras and events, evaluate variables of historical phenomena, and analyze their causes and effects in an international and global context.

Combine repeated, separate institutional SLO statements into one statement.

* Examples provided by Susie Ling (History), Andrej Bojarczak (ESL) and Karen Carlisi (WAC).

3. Write a statement that is overarching yet simple enough for students to understand.

1st Draft: Students will compare and contrast the experiences and issues of subsets of minorities with that of mainstream in power. This should include concerns of race, class and gender.

2nd Draft: Students will compare minority groups and mainstream groups in power, especially on issues of race, class, and gender.

4. Be sure that the SLO reflects a meaningful *context* for assessing knowledge, awareness, or skills and determine *how* it can be assessed.

1st Draft: Students will apply their analysis of history to building their own civic responsibilities as community and international citizens.

Draft 1 can't be assessed within the course.

2nd Draft: Students will apply their analysis of history to *create a plan* for fulfilling their own civic responsibilities as community and international citizens.

Add an assignment *to create a plan* to make the outcome assessable.

5. Know your audience. Write the SLO in language that the students can understand.

1st Draft: Identify English sentence patterns (simple, compound, and common complex sentences) and parts of speech.

For what purpose?

2nd Draft: When given a written task, students will apply their knowledge of basic sentence patterns and parts of speech to identify errors and edit their writing.

This outcome shows a clear link between the skill and the performance.

3rd Draft: When given a written *assignment*, students will apply their knowledge of basic sentence patterns and parts of speech to *find mistakes* and *correct* their writing.

ASSESSMENT

Defining Assessment

Assessment is an ongoing process aimed at understanding and improving student learning. It involves

- making our expectations explicit and public
- setting appropriate criteria and high standards for quality learning
- systematically gathering, analyzing and interpreting evidence to determine how well the students' performance matches the expectations and standards
- using the resulting information to document, explain, and improve performance

Assessment links student performance to specific learning outcomes in order to provide useful feedback to the instructor and students about how successfully students are meeting these outcomes.

(Angelo (1995) Defining (and Re-assessing) Assessment: a Second Try. AAHE Bulletin no. 48, p.7)

Deciding *When* to Assess ...

Take the following quiz to help determine when you need to assess your students.

1. Am I trying to gauge student learning of class content in general?	Yes	No
2. Do I care about the knowledge students bring into the classroom with them at the start of the semester compared to the learning they will take away with them at the end?	Yes	No
3. Does the extent of progress or improvement over a period of days or weeks matter?	Yes	No
4. Do I want to assess the level of students' reflective thinking about a particular reading assignment?	Yes	No
5. Am I interested in specific areas of learning that I have identified as particularly relevant or important?	Yes	No
6. Am I concerned about how well students understand a complicated lecture?	Yes	No

Deciding *When* to Assess... (con't)

1. If you answered “yes” to questions 1, 2, or 3, you should plan on using an assessment method that gauges student learning over time.
2. If you answered “yes” to questions 4, 5, or 6, you will need an assessment method that evaluates student learning at a particular point in time.
3. Of course it is quite possible that all the questions are of interest to you and you may want to incorporate both types of assessment in your model.

OAPA Handbook Course-Based Review and Assessment UMASS Amherst http://www.umass.edu/oapa/oapa/publications/online_handbooks/course_based.pdf

Deciding *How* to Assess ...

1. Course-Embedded Assessment

Most faculty members currently use some form of evaluation method in their courses: essays, tests, quizzes, research papers, midterm and final exams, etc. All of these evaluate student performance. Faculty can use pre-existing evaluation methods to embed assessment of course SLOs. These current evaluation methods can be used to help *develop* the SLOs for courses. In addition, new assessment methods, such as Classroom Assessment Techniques (CATs) can be introduced.

Think about the major evaluation methods you currently use in your course. Make a list of these methods. Then try to describe in one sentence what the students are being asked to demonstrate in the assignment.

Why do you use current assignments, course structure and activities?

What is the learning you want demonstrated and how can you measure it?

Deciding *How* to Assess (con't.)...

Course-Embedded Assessment (con't)

The best place to start assessing course SLOs is to look at current course assignments, tests and projects. Focus on what students will *do*, not on what is *covered*, in the class.

Review the major assignments and evaluation methods and ask these questions:

- Do they match the outcomes for the course?
- Do the course activities reflect the kind of learning we are attempting to achieve?
- Do the assignments require students to demonstrate the kinds of skills that are being graded or assessed?
- What specific class activities and homework assignments help students to successfully complete my major assignments?

In the process of reviewing course assignments and evaluation methods, think about the parts, or the whole, that relate directly to course SLOs. Choose current assignments, tests, papers, etc., or parts of them to use for the assessment of course SLOs (keep in mind, it may be a whole assignment or only parts of it that directly link to an SLO). Try the following technique to analyze test questions for SLO assessment.

Classroom-embedded assessment techniques, particularly those that align graded assignments with learning outcomes, motivate faculty because graded assignments become effective assessment tools and provide reliable alternatives to external intrusion and standardized testing”

Boud, 1995a; Nichols, 1995; Watson and Klassen, 2003; Wiggins, 1993b.

2. Analyzing Test Questions

Step 1: Identify the questions on the test which address the specific course SLO(s) to be assessed. There should be several questions throughout the exam that require students to demonstrate mastery of the specific competencies stated in the SLOs.

Step 2: Deepen the analysis of the questions by further categorizing them into levels:

Level A – those that require higher critical thinking, including analysis, synthesis or evaluation. Students may not be able to make direct links to course material.

Level B – those that require lower level critical thinking skills, such as application. Questions from background provided by course materials.

Level C – those that utilize knowledge and comprehension but no critical thinking directly .

Step 3: Grade entire exam as usual.

Step 4: Create a second scoring key, just for the questions selected for assessing the SLO(s).

A. This would be a good place to use a rubric as the second scoring key.

B. Develop the rubric descriptors to match the levels of competencies determined for the SLO (e.g. What is *inadequate*?, What is *adequate competency*?, What is *mastery*?)

Step 5: Analyze the results using the rubric as a guide for discerning the levels of student achievement. How many students missed the target questions? What level were the questions they had trouble with?

Step 6: Use the analysis to inform the teaching/learning process. Reevaluate your classroom activities and consider ways to improve the students' outcome on these items if necessary.

(Source:www.cabrillo.edu/services/pro/assess/assessweb.doc/slo_InstructionalPlanningAssessmentProcess.pdf page 31)

3. Outcomes-based Grading

Linking SLOs to Grades

- ✓ Define your SLOs
- ✓ List the indicators that will show that competency has been achieved
- ✓ Define the levels of progress and performance you are looking for
- ✓ List the activities that contribute to development
- ✓ Create assignments and activities that lead to your outcomes
- ✓ Describe evidence or documentation that will be used to demonstrate levels of performance
- ✓ Refine and explain the relationship between achievement of outcomes and grades
- ✓ Revise as needed.

Comparison of Traditional vs. Outcome-Based Grading

Outcome-based grading provides a clear and direct relationship between SLOs and the student's final grade. When a student passes a course, it means s/he has consistently and competently demonstrated the expected SLOs. Consistent demonstration means that multiple measures were used to assess the SLOs.

	Traditional	Outcome-Based
Stated Criteria for Grade	Attendance, Assignments, Exams, Activities, etc.	Achievement of course SLOs
Method of Evaluation	Invisible descriptors for quality of products/holistic grades	Visible descriptors for achievement of SLOs (rubric)
Method of Calculating	Grades are derived from total number of points on activities, assignments, exams, etc.	Grades are derived from total points on assessment of specific SLOs
Method of Reporting Grades	A-F grades based on activities, assignments, tests, etc.	A-F grades based on links between SLOs and activities, assignments, tests, etc.

Example #1: Grammar in Context**WITHOUT SLOs**

A Traditional Grading Scale for a Developmental Writing Course: Grammar in Context

Criteria & Points	Points	Percentage
Homework 10 @ 20pts each	200 points	33.3%
Essays 2 @ 50pts each	100 points	16.7%
Quizzes 2 @ 50 pts. Each	100 points	16.7%
Final 1 @ 200 pts	200 points	33.3%
	600 points	100%

A 540 and Above	B 480-539	C 420-479	D 360-419	F Below 360
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WITH SLOs

In the scale on page 16, students know which activities earn them points to successfully complete the course but they don't know what skills or abilities they will have to master. In the example below, the SLOs for the course are clearly presented to the student in addition to the scores they will need to achieve to successfully complete the course.

Student Learning Outcomes

1. Editing for punctuation, subject/verb agreement, pronoun reference and case.
2. Composing and using sentences of three types (simple, compound, and complex and avoiding common sentence-level errors (fragments and run-ons).
3. Using correct words/meanings.
4. Demonstrating the ability to use basic critical thinking and sentence level skills to consistently construct paragraphs that are focused and coherent.
5. Demonstrating the ability to use basic critical thinking and sentence level skills to consistently construct paragraphs that are well supported.

Method of Evaluation

Using a rubric, students will be evaluated on their achievement of course outcomes. Students will be required to document their achievement of each outcome with multiple examples. For each outcome or component, points will be awarded for student achievement with each outcome worth 5 points for a total of 25 points for the course. Students' scores on multiple course activities will be averaged to determine the final points awarded on each outcome.

NOTE: Each SLO does not need to carry the same weight. Faculty can set a benchmark requiring, for example, students to achieve a minimum score of "3" on the final writing assessment in order to successfully complete this course and a minimum score of "3" on both outcomes number 4 and 5.

1 pt inadequate	2 pts developing	3 pts adequate	4 pts accomplished	5 pts excellent
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Outcome-Based Grading Scale

Total Points for All Outcomes	Grade
21-25	A (Excellent or accomplished on all outcomes)
16-20	B (Accomplished or adequate on all outcomes)
11-15	C (at least adequate on all outcomes)
6-10	D (Developing)
5 or below	F (Inadequate on all outcomes)

Example #2: Accounting without SLOs

A Traditional Grading Scale for an Accounting course

Requirements	Points	Percentage
Homework	32	7.6%
Exams	400	87.1%
Attendance	24	5.3%
Total	459	100%

A 413-459	B 317-412	C 321-366	D 275-320	F Below 275
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Accounting Course with SLOs

In the scale above, students know which activities earn them points to successfully complete the course but they don't know what skills or abilities they will have to master. When SLOs for the course are clearly presented to the students, they know what scores they will need to achieve to successfully complete the course.

Students will be able to:

1. Journalize accounting transactions to a general journal
2. Journalize accounting transactions for special journal
3. Post to the general ledger
4. Record to subsidiary ledgers
5. Complete a ten-column worksheet
6. Prepare financial statements
7. Complete a bank reconciliation
8. Demonstrate professionalism at or above college and workplace standards.

Outcome-Based Grading Scale

SLO	Assessment	%	Poi
General Journal	Homework: 2A5, 3A3, 6A2, 9A4, 10A3 Exam 2, 3, & 4	30%	138
Specific Journal	Homework: 9A4, 10A3, Exam 4	10%	46
Posting	Homework: 3A3, 9A4, 10A3, Exam 2	20%	92
Subsidiary Journal	Homework: 9A4, 10A3, exam 4	5%	23
Ten-Column work-sheet	Homework: 4A3, Exam 3	15%	68
Financial Statements	Homework: 1A5, 4A3, Exam 1	10%	46
Bank reconciliation	Homework: 6A1 6A2, Exam 4	5%	23
Professionalism	Evaluation Rubric	5%	23

In the above example each SLO is linked to specific homework assignments and exams. The homework assignments provide the opportunity for the student to practice each SLO and receive feedback from the instructor before taking an exam. It should be noted that the instructor didn't provide a threshold for each SLO to pass the course. This would be valuable for a student so they know what the expectations of the instructor are and the level of competency that is required.

(Source: McClendon and Eckert, Outcome-Based Grading: A Direct Measure of Instructional Effectiveness, 2006 CAIR Conference, Pasadena, CA)

Rubrics

A rubric is “a scoring guide used in **subjective** assessments. A rubric implies that a rule defining the criteria of an assessment system is followed in evaluation. A rubric can be an explicit description of performance characteristics corresponding to a point on a rating scale. A scoring rubric makes explicit expected qualities of performance on a rating scale or the definition of a single scoring point on a scale.”

(“Short Glossary of Assessment Terms.” <http://serc.carleton.edu/introgeo/assessment/glossary.html>)

PCC has adopted a 5-point scale for rubrics.

Example Rubric:

SLO Statement: Student will be able to synthesize ideas from reading into writing.

Step One:

Choose one SLO to work on and write a descriptor for the lowest and highest points on the scale. How will you know if the student can *do* the activity?

Inadequate Demonstration 1	Mastery 5
Makes significant errors in synthesizing the ideas and/or information, resulting in a failed response to the task.	Uses a creative and unique approach to accurately and effectively synthesize information and/or ideas for an in-depth response to the task.

Step Two:

Write a descriptor for the intermediary point on the scale.

Inadequate Demonstration 1	Adequate Competence 3	Mastery 5
Makes significant errors in synthesizing the ideas and/or information, resulting in a failed response to the task.	Synthesizes the ideas and/or information sufficiently to adequately respond to the writing task.	Uses a creative and unique approach to accurately and effectively synthesize information and/or ideas for an in-depth response to the task.

Step Three:

The last step is to write the descriptors for the intermediary points on the scale.

Inadequate	Developing	Adequate	Accomplished	Mastery
Makes significant errors in synthesizing the ideas and/or information, resulting in a failed response to the task.	Synthesizes the ideas and/or information imprecisely, insufficiently, or awkwardly, which weakens the task response.	Synthesizes the ideas and/or information sufficiently to adequately respond to the writing task.	Accurately and concisely synthesizes ideas and/or information from a reading task for a thoughtful response to a writing task.	Uses a creative and unique approach to accurately and effectively synthesize information and/or ideas for an in-depth response to the task.

Note: For some assignments, you may have to develop a more detailed rubric that outlines all the criteria for assessment. For example, in English, a composition can be assessed in areas of content, organization, grammatical structure and mechanics all on the same rubric.

ADDING COURSE SLOs INTO WEBCMS

The information for existing courses is available in the College's WebCMS database (see instructions below; use Public Access to view course information). As of May 2006, faculty can upload Course-level SLOs for existing courses into WebCMS without going through the regular C & I process. Faculty can access WebCMS to input SLOs using the instructions below (use Admin. Access to add course SLOs). Once submitted, the course SLOs go to the Division Dean and then the C&I Committee for review (not approval). SLOs for new courses, courses being revised, and courses under program review can also be entered into WebCMS and reviewed as part of the regular C& I process.

STUDENT LEARNING OUTCOMES (SLOs) – WebCMS INPUT

By Barbara Salmon, Academic Support and C & I Secretary

WebCMS, or the Web-accessible Curriculum Management System, is available at PCC's website: <http://www.pasadena.edu> There are two areas you can access. One is for the public access and the other, Admin. Access, is for faculty curriculum development of courses and programs (Admin. Access requires a password).

To get to the WebCMS:

In Internet Explorer go to: www.pasadena.edu (then to)

Staff Services (then to)

WEB CMS (then to)

Admin Access (click on Admin Access)

The Public Access link and a Tutorial link are also available here.

ORGANIZATIONAL INFORMATION

The following information is based on the Instructional SLOs Organizational Chart, which can be accessed through your Division Office. The purpose of this information is to define the roles and responsibilities of those involved in the development of SLOs at Pasadena City College.

SLO Steering Committee

- Review SLO policies and implementation procedures recommended by the Academic Senate for possible implementation
- Develop SLO policies and implementation procedures in accordance with the College's shared governance process
- Solicit funding and support to sustain SLO planning and development
- Communicate progress and SLO institutional needs to the SLO Division Council, the college president, College Coordinating Council, and the college Board of Trustees
- Assure SLO development and assessment process is consistent with the Accreditation standards
- Address and resolve issues that arise in support of the College's SLO process

SLO Division Council

Consisting of Division Deans and Faculty members from each Division, including Library and Counseling

- Inform SLO Steering Committee on issues that relate to the SLO development and assessment process
- Communicate SLO Steering Committee policies and procedures to faculty
- Provide faculty support relative to the SLO development and assessment process
- Promote the activities of the SLO Steering Committee and SLO Resource Center
- Support the integration of institutional SLOs with program and course SLOs

Faculty and Deans—New Program and Course SLOs

- All full-time and applicable adjunct faculty collaborate to create program and course specific SLOs that integrate institutional SLOs
- Faculty and Deans collaborate and work with the SLO Resource Center and the IPRO to create SLO course and program assessment methodologies and tools
- Faculty enters course SLOs into WebCMS* and program SLOs into program reviews/plans
- Faculty forwards SLOs to SLO Coordinator
- SLO Coordinator provides input and returns to the faculty
- Faculty forwards to dean for review and input
- Deans forward completed SLOs to C&I Committee via WebCMS
- C&I Committee determines if SLOs are consistent with the college's SLO guidelines

Faculty and Deans—Existing Program and Course SLOs

(To be completed prior to Program Review)

- All full-time and applicable adjunct faculty collaborate to create program and course specific SLOs that integrate institutional SLOs
- Faculty and Deans collaborate and work with the SLO Resource Center and the IPRO to create SLO course and program assessment methodologies and tools
- Faculty enters course SLOs into WebCMS* and program SLOs into program reviews/plans
- Faculty forwards SLOs to SLO Coordinator
- SLO Coordinator provides input and returns to faculty/dean
- Faculty forwards to dean for review and input
- Deans forward completed SLOs to Academic Support office via WebCMS

ORGANIZATIONAL INFORMATION

College Participation

- Financially and philosophically support the development and assessment of SLOs through faculty development activities
- Encourage and sustain a campus-wide dialogue about SLOs
- Use the data gathered through the assessment process to inform the college's strategic directions
- Provide a SLO Resource Center in support of the following functions:

SLO Development

SLO Assessment

Coordination with Academic Senate to provide and maintain SLO development and assessment resources for faculty

ROLES IN SLO DEVELOPMENT

The following information is based on the Course SLO Development Flow Chart, which can be accessed through your Division Office. The purpose of this information is to explain the process involved in the development of SLOs at Pasadena City College.

Faculty*

- Develop course SLOs and assessment tools in consultation with SLO Coordinator and other campus resources
- Input course SLOs into WebCMS, the college's electronic curriculum database
- Forward course SLOs to SLO Coordinator for consultation via WebCMS
- Faculty incorporate SLO Coordinator's comments as they see fit
- Faculty forward SLOs to deans for review and forwarding onto next step within WebCMS process

*Defined as fulltime and applicable adjunct discipline faculty as supported by the Academic Senate.

SLO Coordinator

- Consults with faculty on SLO development
- Provides feedback to faculty
- Assists in maintaining a consistent SLO development design for all college course SLOs

Division Dean

- In consultation with faculty, reviews course SLOs as forwarded from faculty to the division dean
- In consultation with faculty, forwards course SLOs to Academic Support via WebCMS

Curriculum and Instruction Committee*

- Determines that new or modified course SLOs follow the PCC SLO guidelines as established by the college
- If it is determined that these SLOs do not conform with the college's guidelines, the C&I Committee will return the SLOs to the division dean for discussion with faculty

* For new courses and course modifications.

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